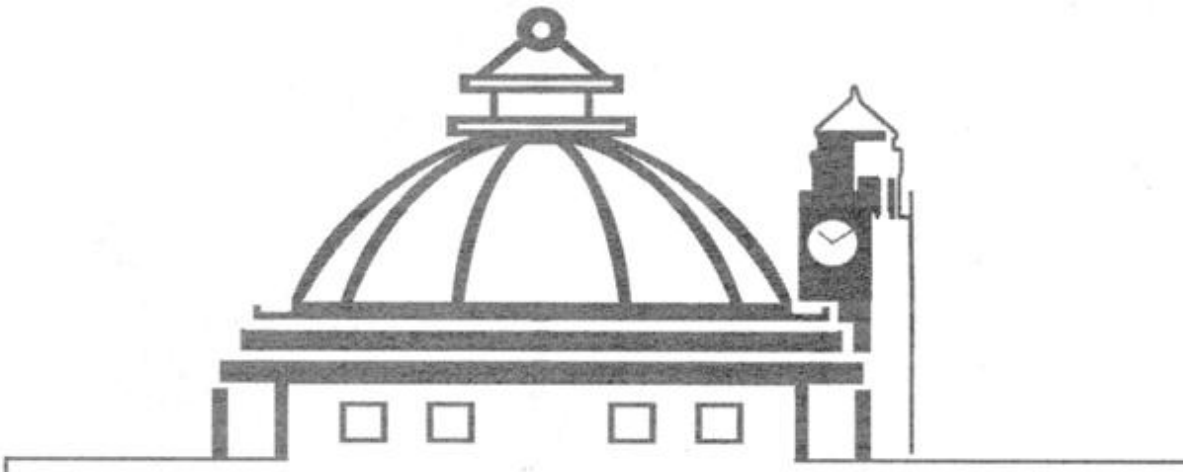

(3)
Medical
Sciences Sector

Total No. of Publication forMedical Sciences Sector

Faculty	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total
Medicine	49	64	124	154	226	350	338	388	324	2017
Pharmacy	27	40	77	104	126	224	261	297	240	1396
National Cancer Institute	9	16	16	27	37	52	46	57	37	297
Oral and Dental Medicine	0	0	1	15	19	23	21	20	17	116
Physical Therapy	0	0	0	0	1	3	30	10	18	62
Nursing	0	0	1	4	2	6	5	20	30	68
Total	85	120	219	304	411	658	701	792	666	3956

Faculty	2015	2016	2017	Total
Medicine	406	403	400	1209
Pharmacy	293	346	296	935
National Cancer Institute	53	46	61	160
Oral and Dental Medicine	15	14	19	48
Physical Therapy	34	46	44	124
Nursing	52	5	5	62
Total	853	860	825	2538

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Faculty of Medicine

Dept. of Anatomy

1. Age-Related Remodeling of the Jak/Stat/Socs Signaling Pathway and Associated Myocardial Changes: from Histological to Molecular Level

Basma Emad Aboulhoda

Annals Of Anatomy, 214: 21-30 (2017) IF: 1.864

Background: The cellular and molecular mechanisms implicated in age-associated changes in myocardialstructure are of aramount importance since they cause profound alterations in thefunctionalresponse and represent targets for alleviating age-related pathologies. One of these mechanisms is **Thejak/Stat/Socs**: signaling pathway.Aim of the study: The present study is designed to elucidate age-dependent changes of the myocardium to provide morphological basis displaying the pathogenesis of myocardial hypertrophy, fibrosis andinflammation with aging.**Material and methods:** Thirty male Sprague Dawley rats aged; 6, 30 and 36 months were used in this study.The animals were divided into three age groups, young adult, senile and very senile rats, respectively. Theheart weight/body weight ratio was determined. The heart was subjected to gross morphologic examination,microscopic examination using H&E and Masson's trichrome stains and immunohistochemicalexamination for detection of JAK, pSTAT3, -SMA, MHC and CD45. Western blotting was also carriedout to detect SOCS genes. Real-time PCR was used to detect the inflammatory markers TNFand IL1and the hypertrophy marker -SKA. Biochemical analysis of cardiac troponin I and creatine kinase-MBwas done. Quantitative histomorphometric estimations included estimation of cardiac myocyte crosssectional area, estimation of the area percent of collagen fibers in Masson's trichrome stained sectionsand determination of optical density in immunostained sections. Electron microscopic examination wasdone to determine capillary density.**Results:** Jak and pSTAT3 were predominantly localized to the nuclei and exhibited progressive decline withaging, while SOCS3 activity displayed an age-related increase. The aged myocardium displayed profoundage associated structural changes as well as myocardial hypertrophy, fibrosis and inflammation in senileand very senile rats.**Conclusion:** The age-related modifications in the JAK/STAT/SOCS signaling as well as the age-associatedpathological changes in myocardial structure are of particular interest as they provide further insight in age-associated heart pathologies and represent potential targets for cardioprotective and therapeuticapproaches.

Keywords: Jak Stat Aging Histology Immunohistochemistry

2. Effect of Subchronic Intake of Green Tea Extract on Liver of Albino Rat Histomorphometric, Ultrastructural and Biochemical Study.

S.M. Zaki, S.H. Ahmed, W.M. Sayed and A.A. Ali

Folia Morphologica, 76(4): 1-8 (2017) IF: 0.341

Background: There are conflicting reports on the effect of Green tea extract (GTE) on the liver of animals. Some studies failed to show any adverse hepatic effects following administration of GTE to mice, rats, and dogs. Others reported severe hepatic necrosis, resulting in death; in female Swiss-Webster mice following its administration. The aim of the study was to study the subchronic toxicity of GTE on the liver of the adult male albino rats.**Material and Methods:**40 male adult Wistar albino rats were used in the study. The rats were divided into four groups; group I (control), group II (Low-dose Green Tea), group III (Medium- dose Green Tea) and group IV (High- dose Green Tea). Histological, biochemical and histomorphometric analysis were done.**Results:**Mild hepatic affections were observed in group II. The affections were severe in groups III and IV. The central veins and hepatic sinusoids were congested. The hepatocytes were degenerated. Hypertrophy of the hepatic arteries, dilation of the bile ducts and cellular infiltration were clearly observed in the last two groups. Mild degenerative changes were observed in the hepatocytes in rat's group II; the cytoplasm was rarefied and vacuolated. Some mitochondria were ruptured. The blood sinusoids were congested. The rough endoplasmic retinaculum was fragmented in group III. More degenerative changes were observed in group IV; the hepatic architectures were lost with disruption of cell membranes. Most of the cell organelles were degenerated and most of mitochondria were ballooned. As compared to that of the control groups: the total serum protein values in groups II, III and IV showed a statistically significant decrease (12%, 20 % and 21 % respectively), the mean area percent of collagen fibers in groups III and IV increased five and seven folds.**Conclusions:**subchronic administration of GTE resulted in structural and functional affection of the rats' liver. The dose of 250 mg/Kg/day seemed to be safe, while the doses of 500 mg and1000 mg/Kg/day had deleterious effect being more evident in the latter dose.

Keywords: Green Tea Extract;Liver.

3.Incidence of Variations in Human Cadaveric Renal Vessels.

S.S. Hassan, E.A. El-Shaarawy, J.C. Johnson, M.F. Youakim and R. Ettarh

Folia Morphologica, 76(3): 394-407 (2017) IF: 0.341

Background: Awareness of discrepancies of renal vasculature is crucial for some medical procedures. The present study investigated origin and course of aberrant and accessory renal vessels and any associated variations.**Materials and Methods:**Renal blood vessels of 63 cadavers were examined. Number of renal veins and arteries, arrangement, location where the vasculature attached to the kidneys, and presence of variations were recorded. Incidence of renal vasculature variations was determined, and associations were tested with age at death, sex, and cause of death and whether variations were more common on a specific side.**Results:**Variations were found in 7 (11%; 95% confidence interval [CI] 5-22%) cadavers. For renal veins, double, triple, and quadruple veins unilaterally (5; 8%) and veins that drained the superior pole (1; 2%) or inferior pole only (5; 8%) were found. For renal arteries, double and triple arteries unilaterally (3; 5%) and arteries attached to the superior pole only (1; 2%) or inferior pole only (2; 3%) were found. Other variations (polycystic kidney, variations in the common iliac or gonadal veins) were observed. Only renal failure as a cause of death was different between those with or without variations (4/7 [57%] vs. 1/56 [2%]; $p < 0.001$).**Conclusions:**The present study found many variations in renal vasculature. Awareness of such variations may be useful for physicians concerned with this region.

Keywords: Accessory Renal Artery;Renal Vessels;Variations.

Dept. of Andrology & Sexology

4. Hydrocortisone Relieves the Immediate Post-Operative Scrotal Edema After Inguinal Varicocelectomy: A Prospective Clinical Trial.

Samir Elhanbly, Tamer Youssef, Ayman Elkholy, Mamdouh Abdel-Gawad and Taymour Mostafa

Journal Of Advanced Research, 8: 445-447 (2017) IF: 3

This study aimed to assess the effect of a single IM injection of hydrocortisone succinate in relieving the immediate post-varicocelectomy scrotal edema. In all, 117 patients with grades II and III varicocele who developed post-varicocelectomy scrotal edema were randomly classified into group A (n = 59) that received a single IM hydrocortisone sodium succinate injection plus ordinary post-operative treatment and Group B (n = 58), which received the post-operative treatment alone. All patients were followed up to assess; changes in scrotal edema, the day of return to work and emergence of complications. Post-operative scrotal edema was assessed using a scrotal edema rating grades (SERG = 0-3) score. In group A, scrotal edema disappeared 1 day after steroid injection in 33 patients (55.9%), and after 2 days in the remaining 26 patients (44.1%), and all patients were returned to work within 5-7 days. In group B, the edema remained large in 36 patients (62.1%), moderate in 22 patients (37.9%), and disappeared after 9-12 days; and those patients returned to work within 11-13 days. It is concluded that a single IM hydrocortisone injection could be effective to reduce the immediate post-operative scrotal edema after inguinal varicocelectomy without obvious side effects.

Keywords:
Edema;Hydrocortisone;Scrotum;Swellings;Varicocele;Varicocelectomy.

5. 46 Xx Karyotype During Male Fertility Evaluation; Case Series and Literature Review.

Ahmad Majzoub, Mohamed Arafa, Christopher Starks, Haitham Elbardisi, Sami Al Said and Edmund Sabanegh

Asian Journal Of Andrology, 19(2): 168-172 (2017) IF: 2.996

Forty-six XX disorder of sex development is an uncommon medical condition observed at times during the evaluation of a man's fertility. The following is a case series and literature review of phenotypically normal men diagnosed with this karyotype. Our goal is to comprehend the patients' clinical presentation as well as their laboratory results aiming to explore options available for their management. A formal literature review through PubMed and MEDLINE databases was performed using "46 XX man" as a word search. A total of 55 patients, including those conveyed in this article were diagnosed with a 46 XX karyotype during their fertility evaluation. The patients' mean age ± s.d. was 34 ± 10 years and their mean height ± s.d. was 166 ± 6.5 cm. Overall, they presented with hypergonadotropic hypogonadism. Sexual dysfunction, reduced hair distribution, and gynecomastia were reported in 20% (4/20), 25.8% (8/31), and 42% (13/31) of the patients, respectively. The SRY gene was detected in 36 (83.7%) and was absent in the remaining seven (16.3%) patients. We found that a multidisciplinary approach to management is preferred in 46 XX patients. Screening for remnants of the mullerian ducts and for malignant transformation in dysgenetic gonads is imperative. Hypogonadism should be addressed, while fertility options are in vitro fertilization with donor sperm or adoption.

Keywords: Hypogonadism;Infertility;Male;Sex-Determining Region;Xx Disorders of Sex Development.

6. Sexual Rehabilitation After Treatment for Prostate CancerPart 2: Recommendations from the Fourth International Consultation for Sexual Medicine (Icsm 2015)

Andrea Salonia, Ganesh Adaikan, Jacques Buvat, Serge Carrier, Amr El-Meliegy, Kostas Hatzimouratidis, Andrew McCullough, Abraham Morgentaler, Luiz Otavio Torres and Mohit Khera

Journal Of Sexual Medicine, 14: 297-315 (2017) IF: 2.978

Introduction: Sexual dysfunction is common in patients after radical prostatectomy (RP) for prostate cancer.**Aim:**To provide the International Consultation for Sexual Medicine (ICSM) 2015 recommendations concerning management strategies for post-RP erectile function impairment and to analyze post-RP sexual dysfunction other than erectile dysfunction.**Methods:**A literature search was performed using Google and PubMed database for English-language original and review articles published up to August 2016.**Main Outcome Measures:**Levels of evidence (LEs) and grades of recommendations (GRs) are provided based on a thorough analysis of the literature and committee consensus.**Results:**Nine recommendations are provided by the ICSM 2015 committee on sexual rehabilitation after RP. Recommendation 6 states that the recovery of postoperative erectile function can take several years (LE = 2, GR = C). Recommendation 7 states there are conflicting data as to whether penile rehabilitation with phosphodiesterase type 5 inhibitors improves recovery of spontaneous erections (LE = 1, GR = A). Recommendation 8 states that the data are inadequate to support any specific regimen as optimal for penile rehabilitation (LE = 3, GR = C). Recommendation 9 states that men undergoing RP (any technique) are at risk of sexual changes other than erectile dysfunction, including decreased libido, changes in orgasm, anejaculation, Peyronie-like disease, and changes in penile size (LE = 2, GR = B).**Conclusion:**This article discusses Recommendations 6 to 9 of the ICSM 2015 committee on sexual rehabilitation after RP. Salonia A, Adaikan G, Buvat J, et al. Sexual Rehabilitation After Treatment For Prostate Cancer-Part 2: Recommendations From the Fourth International Consultation for Sexual Medicine (ICSM 2015). J Sex Med 2017;14:297-315.

Keywords: Alprostadil;Climacturia;Erectile Dysfunction;Intracavernosal Injections;Orgasm;Peyronie Disease;Phosphodiesterase Type 5 Inhibitors;Prostate Cancer;Radical Prostatectomy;Rehabilitation;Sexual Desire

7.Sexual Rehabilitation After Treatment for Prostate CancerPart 1: Recommendations from the Fourth International Consultation for Sexual Medicine (Icsm 2015)

Andrea Salonia,Ganesh Adaikan, Jacques Buvat, Serge Carrier,Amr El-Meliegy, Kostas Hatzimouratidis, Andrew McCullough, Abraham Morgentaler, Luiz Otavio Torres and Mohit Khera

Journal Of Sexual Medicine, 14: 285-296 (2017) IF: 2.978

Introduction: Sexual dysfunction is common in patients after radical prostatectomy (RP) for prostate cancer.**aim:**To provide the International Consultation for Sexual Medicine (ICSM) 2015 recommendations concerning prevention and management strategies for post-RP erectile function impairment in terms of preoperative patient characteristics and intraoperative factors that could influence erectile function recovery.METHODS:A literature search was performed using Google and PubMed databases for English-language original and review articles published up to August 2016.**main outcome measures:**Levels of evidence (LEs) and grades of recommendations (GRs) based on a thorough analysis of the literature and committee consensus.**Results:**Nine recommendations are provided by the ICSM 2015 committee on sexual rehabilitation after RP. Recommendation 1 states that clinicians should discuss the occurrence of postsurgical erectile dysfunction (temporary or permanent) with every candidate for RP (expert opinion, clinical principle). Recommendation 2 states that validated instruments for assessing erectile function recovery such as the International Index of Erectile Function and Expanded Prostate Cancer Index Composite questionnaires are available to monitor EF recovery after RP (LE = 1, GR = A). Recommendation 3 states there is insufficient evidence that a specific surgical technique (open vs laparoscopic vs robot-assisted radical prostatectomy) promotes better results in postoperative EF recovery (LE = 2, GR = C). Recommendation 4 states that recognized predictors of EF recovery include but are not limited to younger age, preoperative EF, and bilateral nerve-sparing surgery (LE = 2, GR = B). Recommendation 5 states that patients should be informed about key elements of the pathophysiology of postoperative erectile dysfunction, such as nerve injury and cavernous venous leak (expert opinion, clinical principle).**Conclusions:**This article discusses Recommendations 1 to 5 of the ICSM 2015 committee on sexual rehabilitation after RP. Salonia A, Adaikan G, Buvat J, et al. Sexual Rehabilitation After Treatment for Prostate Cancer-Part 1: Recommendations From the Fourth International Consultation for Sexual Medicine (ICSM 2015). J Sex Med 2017;14:285-296.

Keywords: Erectile Function;Laparoscopic;Nerve Sparing; Prostate Cancer;Radical Prostatectomy;Rehabilitation;Robotic.

8. Aryl Hydrocarbon Receptor (Ahr) Rs2066853 Gene Polymorphism Association with Infertile Oligoasthenoteratozoospermic Men and Seminal Oxidative Stress.

Taymour Mostafa, Hanan Fouad, Nashaat Nabil, Laila Rashed, Dina Sabry, Khadiga Abougabal and Bolis S. Gendy

Environmental Science and Pollution Research, 24: 8297-8301 (2017) IF: 2.741

This study aimed to assess the association between aryl hydrocarbon receptor (AhR) rs2066853 gene polymorphism with infertile oligoasthenoteratozoospermic (OAT) men and seminal oxidative stress (OS). A total of 170 Egyptian men were allocated according to their semen analysis into fertile normozoospermic controls (n = 50) and infertile OAT men (n = 120). They were subjected to history taking, clinical examination, semen analysis, estimation of seminal glutathione peroxidase (GPx), and malondialdehyde (MDA). AhR rs2066853 gene polymorphism was identified in the blood by PCR-RFLP. Comparing infertile OAT men with fertile controls, AhR rs2066853 genotypes showed decreased prevalence for wild homozygous genotype GG (35.8 vs 56%) and for heterozygous genotype GA (17.5 vs 30%) and an increased prevalence for homozygous genotype AA (46.7 vs 14%). Distribution of alleles of AhR rs2066853 among OAT men compared with fertile men showed decreased prevalence of G allele (44.6 vs 71%) and an increased prevalence of A allele (55.4 vs 29%). Seminal MDA demonstrated significant increase whereas seminal GPx demonstrated significant decrease in cases with AA and GA/AA genotypes compared to cases with GG genotype. It is concluded that there is a significant association between AhR rs2066853 genotype polymorphism with decreased sperm parameters as well as increased seminal oxidative stress in infertile OAT men.

Keywords: Aryl Hydrocarbon Receptor;Male Infertility;Oligoasthenoteratozoospermia;Oxidative Stress;Polymorphism;Rs2066853.

9. A Multicenter Study to Evaluate Oxidative Stress by Oxidation-Reduction Potential, A Reliable and Reproducible Method.

Agarwal A, Arafa M, Chandrakumar R, Majzoub A and AlSaid S Elbardisi H

Andrology, 5(5): 939-945 (2017) IF: 2.427

Seminal oxidative stress (OS) is well-known to affect male fertility status. The discrepancy in OS measurement has hindered its clinical use as a quality indicator for semen. Some tests measured single markers of oxidants or reductants, leading to lack of standardization of results. Oxidation-reduction potential (ORP) is a better representative for OS as it provides an overall measure of the activity of both oxidants and reductants. ORP assessment by MiOXSYS has been introduced as a measure of OS with high specificity in differentiating fertile from infertile semen samples. This is a retrospective study comparing data from semen analysis and ORP measurements between two andrology laboratories in the USA and Qatar over a period of 12 months. The same protocol was followed by both laboratories. The USA dataset contained 194 patients and 51 fertile donors, while the Qatar dataset contained 400 patients and 50 fertile donors. In both datasets and in the combined dataset, the infertile group had

significantly lower sperm concentration, total and progressive motility, and normal morphology as well as higher ORP levels compared to fertile men ($p < 0.05$). When comparing data from both centers, the infertile group showed significant difference between both datasets regarding progressive motility and morphology ($p < 0.001$). Also, the percentage of patients with abnormal semen volume, sperm count, total and progressive motility were significantly different between both datasets ($p < 0.05$). ORP levels showed no significant difference between both datasets ($p < 0.08$). ROC analysis indicated that ORP cutoff value of 1.42 mV/106 /mL in the USA group, Qatar group, and combined dataset can accurately differentiate fertile from infertile semen groups. Although other semen parameters showed significant differences between the two centers, ORP remained consistent in both datasets individually or in combined data. This proves its reproducibility and reliability.

Keywords: Infertility;Oxidation-Reduction Potential;Oxidative Stress;Semen Analysis.

10.Are the Cavernous Tissue and Serum Levels of Micro Rnas 200A and 206 Elevated in Patients with Refractory Veno-Occlusive Erectile Dysfunction? A Comparative Study

Sameh Fayek GamalEl Din, Laila Ahmed Rashed, Hany Ahmed Alghobary, Lamiaa Tarek Tawfik and Mohammed Said ElSheemy

Urology, 108: 108-113 (2017) IF: 2.309

Objective: To evaluate the association between miRNAs and veno-occlusive erectile dysfunction. Recently,this association between miRNAs and erectile dysfunction was extensively studied using animal models. Our aim was to explore the miRNAs expressions and functions in the development of erectile dysfunction, especially veno-occlusive dysfunction, using a human tissue.**patients and methods:**We prospectively recruited 60 patients with erectile dysfunction and controls between July 2015and July 2016. The 30 patients had refractory veno-occlusive erectile dysfunction that was proven by investigations. They were scheduled for penile implant. The 30 controls were scheduled forrepair of their fracture.We measured miRNAs (200a and 206) and nitric oxide in cavernous tissueand serum of both patients with erectile dysfunction and controls.**Results:** A significant association was found between the 2 mentioned miRNAs and erectile dysfunction(P <.001). Mean level of nitric oxide in cavernous tissue of the controls was significantly higherthan that in the patients (P <.001). miRNA 200a showed a cutoff value of 1.135 with 95% sensitivityand 100% specificity, whereas miRNA 206 showed a cutoff value of 1.125 with 100% sensitivityand 100% specificity.**Conclusion:** To the best of our knowledge, our study is the first report to measure the level of miRNAs in thecavernous tissue, using a human tissue. Furthermore, this study can be considered a good step ofdeploying miRNAs through a blood test to detect early negative changes that lead to erectiledysfunction. Finally, we recommend more studies to be conducted to better understand if thesemiRNAs are involved in the pathophysiology of veno-occlusive erectile dysfunction.

Keywords: Mirnas;Refractory Veno-Occlusive Erectile Dysfunction.

11. Assessment of Seminal Mast Cells in Infertile Men with Varicocele After Surgical Repair.

Mostafa RM, Abol-Magd R, Younis SE, Dessouki and Azab M Mostafa T

Andrologia, 49 (3): 1-5 (2017) IF: 1.458

This study aimed to assess seminal mast cells in infertile men associated with varicocele (Vx) pre- and post-surgical repair. Forty-five infertile men associated with Vx were subjected to history taking and clinical examination. In addition, semen parameters and seminal mast cells stained with 1% toluidine blue were estimated pre-varicocelectomy and three months post-varicocelectomy. Vx surgical repair revealed a significant improvement in the mean sperm concentration, progressive sperm motility, total sperm motility and sperm abnormal morphology and a significant decrement in seminal mast cells (mean ± SD, 3.56 ± 2.23 cells per high-power field (HPF) vs. 2.22 ± 1.06 cells per HPF, p = .01). The pre-operative mean mast cell count demonstrated significant increases in cases with Vx grade III compared with other Vx grades and in cases with bilateral Vx compared with unilateral Vx cases. Seminal mast cells demonstrated a significant correlation with sperm concentration, progressive sperm motility and total sperm motility and a nonsignificant correlation with age and sperm abnormal morphology. It is concluded that seminal mast cells decrease significantly in infertile men with Vx after surgical repair showing a significant negative correlation with sperm concentration, progressive sperm motility and total sperm motility.

Keywords: Male Infertility;Mast Cells; Semen; Varicocele; Varicocelectomy.

12. Effects of Paroxetine on Intravaginal Ejaculatory Latency Time in Egyptian Patients with Lifelong Premature Ejaculation as A Function of Serotonin Transporter Polymorphism

AM Salem, II Kamel, LA Rashed and SF GamalEl Din

International Journal Of Impotence Research, 29: 7-11 (2017) IF: 1.293

Premature ejaculation (PE) is a common ejaculatory complaint. The estimated rates among Turkish men reached 20%, although the severest type of PE (lifelong PE) usually does not exceed 2.3%. This could be seen in line with two survey studies involving five nations. They revealed that 2.5% of men had an intravaginal ejaculation latency time of o1 min and 6% of o2 min. Rapid ejaculation may be treated pharmacologically with a variety of different medications that act either centrally or locally to delay ejaculation and subsequent orgasm. Antidepressants, particularly members of the selective serotonin reuptake inhibitor class,retard ejaculation significantly. Recently, it was postulated that men with lifelong PE might result from a combination of polymorphisms of the serotonergic transporter and receptors, and other neurotransmitters and/or receptors. Our findings augment the significant effect of paroxetine in delaying ejaculation in the responders (Po0.001). Meanwhile, the findings do not suggest a positive association between such response and serotonin transporter gene promoter polymorphism.

Keywords: Lifelong Premature Ejaculation;Serotonin Transporter Gene Polymorphism;Paroxetine;Placebo.

13. Study of the Link Between Dopamine Transporter Gene Polymorphisms and Response to Paroxetin and Escitalopram in Patients with Lifelong Premature Ejaculation

TK Eltonsi, TM Tawfik, LA Rashed, SF Gamal El Din and MA Mahmoud

International Journal Of Impotence Research, 29: 235-239 (2017) IF: 1.293

We evaluated the role of dopamine (DA) transporter gene polymorphism in lifelong premature ejaculation (LPE) and its role in determining the response to paroxetine and escitalopram. Eighty consecutive patients and controls were recruited. Sixty of them suffered from LPE. They were divided into two equal groups. One group received paroxetine 20 mg daily for 3 months and the other one received ecistalopram 20 mg daily for 3 months. Their wives were instructed to measure the intra-vaginal ejaculation latency time using stopwatch. Five milliliters of blood was withdrawn from patients and controls for PCR analysis. The present study revealed that the mean ages of the patients and controls were 41.42 and 36.4 years, respectively. The majority of the patients wereof (10R/10R) genotypes of the DA transporter gene polymorphism, whereas the controls were of (6R/6R) genotypes and thisrevealed statistically significant result (P-value = 0.001). Both paroxitine and escitalopram significantly delayed ejaculation in the responders (P-values = 0.001 and 0.001, respectively). The study revealed significant association between such response and DA transporter gene polymorphism (P-values of fold increase and log FI were 0.019 and 0.010, respectively). To the best of our knowledge, this is the first report to demonstrate a highly significant association between such response and DA transporter gene polymorphism in patients with LPE.

Keywords: Lifelong Premature Ejaculation;Dopamine Transporter Gene Polymorphism;Paroxetine;Escitalopram.

14. Sex Dreams in Married Women: Prevalence, Frequency, Content, and Drives

Ihab Younis, Sherine H. Abdelrahman, Amany Ibrahim and Samar Hasan

Dreaming, 27: 251-259 (2017) IF: 0.867

Although sex dreams (SD) are of common occurrence, studies dealing with them are still restricted. SD had been reported as accompanying nocturnal orgasms in women and they were reported usually as a reflection of their actual experience. This cross-sectional descriptive study aimed to provide information about SD prevalence,frequency, content, and drives in a group of Egyptian married women. Overall, 211 married women answered a self-report questionnaire including 23 items covering theepidemiology of participants, sexual activity, and SD details. Overall, 106 of the participants (51.3%) experienced the occurrence of SD. The most common frequency of SD was once/month occurring in 25.6% of the participants; most common content seen was kissing (39.6%), most commonly occurring in familiar places (62.3%), most common persons seen were husbands (33.6%), feeling pleasure after it (54.7%) with increased emotional satisfaction (46.2%). The most common drive to have SD was to be in a sexually stimulating situation (51.8%). Occurrence of SD was more common in women aged 20–29, in those having a university degree and in house wives. SD was proportional to coital frequency and the frequency of orgasm. It is concluded that SD is not uncommon in married women where sexual thoughts and motives are represented.

Keywords: Sexuality;Sexual Health;Sex Dreams;Women.

15. Prospective Analysis on the Effect of Botanical Medicine (Tribulus Terrestris) on Serum Testosterone Level and Semen Parameters in Males with Unexplained Infertility

Mohamed Farid Roaiah, Yasser Ibrahim Elkhayat, Sameh Fayek GamalEl Din Saleh and Mohamed Ahmed Abd El Salam, MA

Journal Of Dietary Supplements, 14(1): 25-31 (2017)

We evaluated the role of Tribulus terrestris in males with unexplainedinfertility and its effect on serum testosterone and semen parameters. Thirty randomized male patients presenting to Andrology outpatient clinic complaining of idiopathic infertility were selected. They were given Tribulus terrestris (750 mg) in three divided doses for three months. The effect of Tribulus terrestris on serum testosterone (total and free) and luteinizing hormone (LH), as well as its impact on semen parameters in those patients, was studied. No statistically significant difference was observed in the levels of testosterone (total and free) and LH and semen parameters (sperm concentration or motility, or abnormal forms) before and after the treatment. In addition, no statistically significant correlations were observed between testosterone (free and total) and LH and semen parameters before and after the treatment. Tribulus terrestris was ineffective in the treatment of idiopathic infertility.

Keywords: Placebo-Idiopathic Infertility;Testosterone–Semen Parameters;Tribulus Terrestris.

16.Non-Sexual Implications of Phosphodiesterase Type 5 Inhibitors

Taymour Mostafa

Sexual Medicine Reviews, 5: 170-199 (2017)

Introduction: Phosphodiesterase type 5 (PDE5) hydrolyses cyclic guanylate monophosphate specifically to 50 guanylate monophosphate, promoting corporeal vascular relaxation and penile erection in response to sexualstimulation. Oral PDE5 inhibitors (PDE5-Is) have afforded effective and well-tolerated treatment for erectile dysfunction. In addition, PDE5-Is have stimulated academic and clinical interest for their potential benefits in diverse non-sexual applications.**Aim:** To highlight possible potential non-sexual implications of PDE5-Is.**Methods:** A systematic review was conducted until January 2016 based on a search of all relevant articles inMedline Medical Subject Heading, Scopus, Cochrane Library, EMBASE, and CINAHL databases withoutlanguage restriction. Key words used to assess outcome and estimates for the relevant associations were PDE5inhibitors, sildenafil, tadalafil, vardenafil, and avanafil.Main Outcome **Measures:** Different non-sexual implications for PDE5-Is.Results: PDE5-Is demonstrated beneficial effects in different medical applications with possible widespreadimplications for

cardiovascular, pulmonary, cutaneous, gastrointestinal, urogenital, cellular, musculoskeletal,neurologic, and reproductive disorders. However, most applications were carried out experimentally in preclinicalstudies of off-label indications. **Conclusion:** PDE5-Is are a conceptually attractive therapeutic class of agents with pleiotropic effects. Exploring PDE5-Is for their possible implications seems to be valuable in different medical disorders. However,well-designed clinical trials are needed before these agents can be recommended for selected applications.

Keywords: Phosphodiesterase Type 5 Inhibitors; Sildenafil; Tadalafil;Vardenafil;Avanafil.

Dept. of Anesthesiology

17. International Surviving Sepsis Campaign Guidelines 2016: the Perspective from Low-Income and Middle-Income Countries

Gentle S ShresthaEmail the author Gentle S Shrestha , Arthur Kwizera , Ganbold Lundeg , John I Baelani , Luciano C P Azevedo , Rajyabardhan Pattnaik , Rashan Haniffa , Srdjan Gavrilovic , Nguyen Thi Hoang Mai , Niranjan Kissoon , Rakesh Lodha , David Misango , Ary Serpa Neto , Marcus J Schultz , Arjen M Dondorp , Jonarthan Thevanayagam , Martin W Dünser , A K M Shamsul Alam , Ahmed M Mukhtar , Madiha Hashmi , Suchitra Ranjit , Akaninyene Otu , Charles Gomersall , Jacinta Amito , Nicolas Nin Vaeza , Jane Nakibuuka , Pierre Mujyarugamba , Elisa Estenssoro , Gustavo A Ospina-Tascón , Sanjib Mohanty and Mervyn Mer

Lancet Infectious Disease, 17: 893-895 (2017) IF: 19.864

In the most recent international Surviving Sepsis Campaign guidelines, Rhodes and colleagues1 excellently outline evidence-based management of patients with sepsis and septic shock. Of note, however, is that most of the world's population resides in low-income and middle-income countries (LMICs), where the burden of sepsis is enormous, outcomes are often poor, and socioeconomic consequences are dire.2 Of the 655 references supporting the new sepsis guidelines, only a few pertain to studies in LMICs (about 10%).

Keywords: Surviving Sepsis Campaign;Low Middle Income Country.

18. Predicting Successful Supraclavicular Brachial Plexus Block Using Pulse Oximeter Perfusion Index

A. Abdelnasser, B. Abdelhamid, A. Elsonbaty, A. Hasanin and A. Rady

British Journal Of Anaesthesia, 119: 276-280 (2017) IF: 6.238

Background. Supraclavicular nerve block is a popular approach for anaesthesia for upper limb surgeries. Conventional methods for evaluation of block success are time consuming and need patient cooperation. The aim of this study was to evaluate whether the perfusion index (PI) can be used to predict and provide a cut-off value for ultrasound-guided supraclavicular nerve block success.Methods. The study included 77 patients undergoing elective orthopaedic procedures under ultrasound-guided supraclavicular nerve block. After local anaesthetic injection, sensory block success was assessed every 3 min by pinprick, and motor block success was assessed every 5 min by the ability to flex the elbow and the hand against resistance. The PI was recorded at baseline and at 10, 20, and 30 min after anaesthetic injection in both blocked and non-blocked limbs. The PI ratio was calculated as the PI after 10 min divided by the PI at the baseline. Receiver operating characteristic curves were constructed for the accuracy of the PI in detection of block success.Results. The PI was higher in the blocked limb at all time points, and this was paralleled by a higher PI ratio compared with the unblocked limb. Both the PI and the PI ratio at 10 min after injection showed a sensitivity and specificity of 100% for block success at cut-off values of 3.3 and 1.4, respectively.Conclusions. The PI is a useful tool for evaluation of successful supraclavicular nerve block. A PI ratio of > 1.4 is a good predictor for block success.

Keywords: Nerve Block;Oximetry;Perfusion;Ultrasonography.

19.Evaluation of Perfusion Index as A Tool for Pain Assessment in Critically Ill Patients

Ahmed hasanin, Sabah Abdel Raouf Mohamed and Akram El-Adawy.

Journal Of Clinical Monitoring And Computing, 31: 961-965 (2017) IF: 2.178

Pain is a common and undertreated problem in critically ill patients. Pain assessment in critically ill patients is challenging and relies on complex scoring systems. The aim of this work was to find out the possible role of the perfusion index (PI) measured by a pulse oximeter (Masimo Radical 7; Masimo Corp., Irvine, CA, USA) in pain assessment in critically ill patients. A prospective observational study was carried out on 87 sedated non-intubated patients in a surgical intensive care unit. In addition to routine monitoring, a Masimo pulse oximeter probe was used for PI measurement. The sedation level of the patients was assessed by using the Richmond Agitation-Sedation Scale (RASS). The pain intensity was determined by applying the behavioral pain scale for non-intubated (BPS-NI) patients. The PI, arterial blood pressure, heart rate, RASS, and BPS-NI values before and after the application of a standard painful stimulus (changing the patient position) were reported. Correlation between the PI and other variables was carried out at the two measurements. Correlation between changes in the PI (delta PI) and in the hemodynamic variables, RASS, and BPS-NI was also done. Changing the patient position resulted in a significant increase in SBP (128 ± 20 vs 120.4 ± 20.6, P = 0.009), DBP (71.3 ± 11.2 vs 68.7 ± 11.3, P = 0.021), heart rate (99.5 ± 19 vs 92.7 ± 18.2, P = 0.013), and BPS-NI (7[6–8] vs 3[3–3], P < 0.001) values and a significant decrease in the PI (1[0.5–1.9] vs 2.2[0.97–3.6], P < 0.001) value compared to the baseline readings. There was no correlation between the values of the PI and the ABP, BPS-NI, and RASS at the two measurements. A good correlation was found between the delta PI and delta BPS-NI (r = −0.616, P < 0.001). A weak correlation was observed between the PI and heart rate after the patient positioning (r = −0.249, P < 0.02). In surgical critically ill non-intubated patients, the application of a painful stimulus was associated with decreased PI. There was a good correlation between the change in the PI and the change in BPS-NI values after the application of painful stimulus.

Keywords: Perfusion Index;Pain;Critically Ill Patients.

20. Leg Elevation Decreases the Incidence of Post-Spinal Hypotension in Cesarean Section: A Randomized Controlled Trial

Ahmed Hasanin, Ahmed Aiyad, Ahmed Elsakka, Atef Kamel, Reham Fouad, Mohamed Osman, Ali Mokhtar, Sherin Refaat and Yasmin Hassabelnaby

Bmc Anesthesiology, 17:60: 0-0 (2017) IF: 1.525

Background : Maternal hypotension is a common complication after spinal anesthesia for cesarean section (CS). In this study we investigated the role of leg elevation (LE) as a method for prevention of post-spinal hypotension (PSH) for cesarean section.Methods: One hundred and fifty full term parturients scheduled for CS were included in the study. Patients were randomized into two **groups:** Group LE (leg elevation group, n = 75) and group C (Control group, n = 75). Spinal block was performed in sitting position after administration of 10 mL/Kg Ringer's lactate as fluid preload. After successful intrathecal injection of local anesthetic, Patients were positioned in the supine position. Leg elevation was performed for LE group directly after spinal anesthesia and maintained till skin incision. Intraoperative hemodynamic parameters (Arterial blood pressure and heart rate), intra-operative ephedrine consumption, incidence of PSH, and incidence of nausea and vomiting were reported. **Results:** LE group showed lower incidence of PSH (34.7% Vs 58.7%, P = 0.005) compared to the control group. Arterial blood pressure was higher in the LE group compared to the control group in the first two readings after spinal block. Other readings showed comparable arterial blood pressure and heart rate values between both study groups; however, LE showed less ephedrine consumption (4.9 ± 7.8 mg Vs 10 ± 11 mg, P = 0.001).**Conclusion:**LE performed immediately after spinal block reduced the incidence of PSH in parturients undergoing CS
Keywords: Hypotensionspinal Anesthesiacesarean Sectionleg Elevation.

21. Management for Failed Back Surgery Syndrome: Three-in-One Procedure Versus Percutaneous Spinal Fixation Alone

Ahmed Abdalla Mohamed , Atef Kamel Salam, Ahmed Essam Salem and Ashraf El Gallad

Southern African Journal Of Anaesthesia And Analgesia, 1: 1-6 (2017)

Objectives: To evaluate the short-term outcome of a 3-in-1 procedure including percutaneous facet radiofrequency, percutaneous spinal fixation and steroid with hyaluronidase enzyme injection versus percutaneous spinal fixation alone for cases with failed back surgery syndrome (FBSS). **Patients and methods:** The study included 50 patients who had had previous spinal surgery since a mean duration of 39.7 ± 8.5 months and developed recurrent back pain since a mean duration of 10 ± 2.1 months. Patients were randomly allocated into two groups; group A underwent percutaneous spinal fixation only and group B underwent the 3-in-1 procedure. Outcome was evaluated at the end of six months postoperatively (PO) using a pain numeric rating scale (NRS), the Oswestry Disability Index (ODI) and Odom's criteria for evaluation of surgical outcome with evaluation of patients' satisfaction by outcome. **Results:** All patients showed progressive decrease of NRS pain and ODI scores compared with preoperative scores. However,patients in group B showed significantly lower postoperative NRS pain scores and ODI with significantly higher frequency of patients having had > 50% reduction of both scores compared with patients in group A. PO analgesic consumption rate in both groups was significantly lower than the preoperative rate with a significant reduction of mean total scoring compared withpreoperative scoring. The frequency of patients who found the provided therapeutic procedure satisfactory and its outcome good-to-excellent was significantly higher among patients in group B compared with group A. Conclusion: Short-term outcomes of the applied 3-in-1 procedure are promising for improvement of symptoms secondary to FBSS and allow it to be recommended as the therapeutic modality for such a challenging clinical problem.
Keywords: Failed Spinal Surgery;Percutaneous Facet Radiofrequency;Percutaneous Spinal Fixation.

22. Immediate Post-Discectomy Percutaneous Facet Nerve Continuous and Nerve Root Pulsed Radiofrequency and Intraluminal Injection of Steroid with Hyaluronidase Improved Outcome of Surgery for Lumbar Disk Herniation

Ahmed E. Mohamed Ali , Ahmed A. Mohamed , Ossama H. Salman and Ashraf M. El Gallad

Egyptian Journal Of Anaesthesia, 33: 21-28 (2017)

Objectives: Evaluation of effects of postoperative (PO) facet nerve continuous thermalradiofrequency neurotomy (CTRFN), nerve root pulsed RF (PRF) and triamcinolone with hyaluronidase injection on outcome of patients undergoing open lumber discectomy.Patients & methods: Seventy patients were allocated into the following **groups:** Group S underwent open discectomy alone and GroupMunderwent open discectomy followed by the three adjuvant procedures. Low back pain (LBP) severity was assessed using numeric rating scale (NRS) and disability was assessed using the Oswestry Disability Index (ODI). Primary outcome measure was at least 50%improvement of NRS and ODI. Secondary outcome involved scoring of pain medication requirements,Odom's criteria for improvement of preoperative abnormal findings and patients' satisfaction.Results: Throughout 12-m follow-up, mean NRS and ODI scores of all patients were significantlylower than preoperative scores with significantly lower scores in groupMthan in group S. Frequencyof patients had P50% improvement which was significantly higher in group M than in group S.
Keywords: Radiofrequency Neurotomy;Low Back Pain.

23. Preprocedural Ultrasound Examination Versus Manual Palpation for Thoracic Epidural Catheter Insertion

Ahmed M Hasanin, Ali M Mokhtar, Sherin M Amin and Ahmed A Sayed.

Saudi Journal Of Anaesthesia, 11: 62-66 (2017)

Background and Aims: Ultrasound imaging before neuraxial blocks was reported to improve the ease of insertion and minimize the traumatic trials. However, the data about the use of

ultrasound in thoracic epidural block are scanty. In this study, pre-insertion ultrasound scanning was compared to traditional manual palpation technique for insertion of the thoracic epidural catheter in abdominal operations.**subjects and methods:**Forty-eight patients scheduled to midline laparotomy under combined general anesthesia with thoracic epidural analgesia were included in the study. Patients were divided into two groups with regard to technique of epidural catheter insertion; ultrasound group (done ultrasound screening to determine the needle insertion point, angle of insertion, and depth of epidural space) and manual palpation group (used the traditional manual palpation technique). Number of puncture attempts, number of puncture levels, and number of needle redirection attempts were reported. Time of catheter insertion and complications were also reported in both groups.**Results:**Ultrasound group showed lower number of puncture attempts (1 [1, 1.25] vs. 1.5 [1, 2.75], P = 0.008), puncture levels (1 (1, 1) vs. 1 [1, 2], P = 0.002), and needle redirection attempts (0 [0, 2.25] vs. 3.5 [2, 5], P = 0.00). Ultrasound-guided group showed shorter time for catheter insertion compared to manual palpation group (140 ± 24 s vs. 213 ± 71 s P = 0.00).**Conclusion:**Preprocedural ultrasound imaging increased the incidence of first pass success in thoracic epidural catheter insertion and reduced the catheter insertion time compared to manual palpation method.

Keywords: Laparotomy;Thoracic Epidural;Ultrasound.

24. Perfusion Indices Revisited.

Ahmed Hasanin, Ahmed Mukhtar and Heba Nassar

Journal Of Intensive Care, 5: 24-24 (2017)

Monitoring of tissue perfusion is an essential step in the management of acute circulatory failure. The presence of cellular dysfunction has been a basic component of shock definition even in the absence of hypotension. Monitoring of tissue perfusion includes biomarkers of global tissue perfusion and measures for assessment of perfusion in non-vital organs. The presence of poor tissue perfusion in a shocked patient is usually associated with worse outcome. Persistently impaired perfusion despite adequate resuscitation is also associated with worse outcome. Thus, normalization of some perfusion indices has become one of the resuscitation targets in patients with septic shock. Although the collective evidence shows the clear relation between impaired peripheral perfusion and mortality, the use of different perfusion indices as a resuscitation target needs more research.

Keywords: Lactate;Perfusion Indices;Shock.

25. He Effect of Inguinal Canal and Intraincisional Infiltration of Tramadol Versus Bupivacaine 0.25% on Postoperative Pain Relief in Patients Undergoing Inguinal Hernioplasty Under General Anesthesia

Amr Samir Wahdan and Ahmed Abd Elaziz Seleem

Anaesthesia, Pain & Intensive Care, VOL 21(3) JUL-SEP 2017: 0-0 (2017)

Background and aims: the aim of the study was to evaluate inguinal canal block together with intra-incisional injection of tramadol against bupivacaine 0.25% in cases undergoing inguinal hernioplasty under general anesthesia (GA).**Methodology:** In this randomized controlled trial, 120 male patients were chosen for this study with ASA I or II criteria, between 18 and 60 years of age. They were divided into three groups: either control (Group A), 0.25% bupivacaine (Group B), or tramadol (Group C). After induction of GA, the inguinal canal block and intraincisional infiltration were performed under ultrasound guidance, maintaining the heart rate (HR) and mean arterial blood pressure (MABP) within 20% of their values before induction by the use of Fentanyl bolus intraoperatively. The pain assessment was done postoperatively by visual analogue score (VAS), the time for the first analgesic requirement and the total amount of meperidine consumption was measured. The data analysis was carried out with unpaired Student's t‐test and Chi‐square test using software SPSS 22.0 version.**Results:** The fentanyl requirements intra-operatively, the postoperative VAS and total dose of postoperatively meperidine consumption were statistically higher in control group compared to both other groups. But the total amount of meperidine consumption postoperatively was statistically lower in tramadol group compared with other groups.**Conclusion:** An improved intra-operative and postoperative pain was provided by locally infiltrated tramadol, together with reducing the need of post-operative pain control agents with consequent beneficial reduction of narcotic side effects.

Keywords: Bupivacaine; Inguinal Hernia; Postoperative Pain; Tramadol

26. The Effect of Addition of Dexamethasone to Levobupivacaine in Parturients Receiving Combined Spinal-Epidural for Analgesia for Vaginal Delivery.

Amr Samir Wahdan, Ahmed Ibrahim El‐Sakka and Hassan Mostafa Ismail Gaafar

Indian Journal Of Anaesthesia, 61 (7) July 2017: 556-561 (2017)

Background and Aims: Regional analgesia is commonly used for the relief of labour pain, Prolongation of analgesia can be achieved by adjuvant medications. The aim of this randomised controlled trial was to evaluate the efficacy of intrathecal levobupivacaine with dexamethasone for labour analgesia.**Methods:**A total of 80 females were included in this study, all were primigravidas undergoing vaginal delivery with cervical dilatation ≥4 cm and 50% or more effacement. Forty females were included randomly in either Group L (received intrathecal levobupivacaine 0.25% in 2 mL) or Group LD (received intrathecal levobupivacaine 0.25% combined with dexamethasone 4 mg in 2 mL). The primary outcome was the duration of spinal analgesia. Secondary outcomes included the total dose of epidural local anaesthetic given, time to delivery, neonatal outcome and adverse effects.RESULTS:The duration of spinal analgesia was significantly longer in the LD group compared with L group (80.5 ± 12.4 min vs. 57.1 ± 11.5 min, respectively; P < 0.001). In Group LD compared with Group L, time from spinal analgesia to delivery was significantly lower (317.4 ± 98.9 min vs. 372.4 ± 118.8 min, respectively; P = 0.027), and total epidural levobupivacaine consumption was significantly lower (102.4 ± 34.8 mg vs. 120.1 ± 41.9 mg, respectively; P = 0.027). The two groups were comparable with respect to characteristics of sensory and motor block, haemodynamic parameters, pain scores, neonatal outcome and frequency of adverse effects.**Conclusion:**Intrathecal dexamethasone plus levobupivacaine prolongs the duration of spinal analgesia during combined spinal-epidural CSE for labour analgesia.

Keywords: Combined Spinal-Epidural; Dexamethasone; Intrathecal; Levobupivacaine.

27. Cervical Epidural Puncture Guided by Fluoroscopy in Comparison to Acoustic Signals: Clinical Results

Ali HM, Toble YMR and Tolba YYA

Saudi Journal Of Anesthesia, 11: 305-308 (2017)

Background and Aim: The increasing cases of the cervical epidural but the practitioners in need for a new method to decrease the safety of the injection and to improve the learning curve of the trainee. Furthermore, it should replace the potentially hazards, conventional one, which is the fluoroscope. Acoustic signals were tested for this purpose.Methods: Thirty‑two patients were assigned to have a cervical epidural for pain management using both acoustic signalsand fluoroscopy simultaneously.**Results:** The incidence of success was 100% with no complications. Likewise, the decrease in fluoroscopy shots numberwas 70%.**Conclusions:** Acoustic signals are a simple, effective method of cervical epidural insertion. It reduces the usage of fluoroscopy and can be used as a learning tool.
Keywords: Acoustic Signals; Cervical Epidural; Fluoroscopy

28. Open Appendectomy Using Ultrasound Guided Transversus Abdominis Plane Block: A Case Report

Hassan Mohamed Ali and Ashraf Hamed Shehata

Anesthesiology And Pain Medicine, 7: 1-2 (2017)

Introduction: TAB block has been used as an analgesic adjuvant in many abdominal surgeries with fair reliability, but it has neverbeen used as an anesthetic technique.Case Presentation: In this case report, a 19- year-old male underwent an open appendectomy using ultrasound-guided TAP blockas a single anesthetic technique.Conclusions: It was concluded that under certain circumstances TAP block can be used as an anesthetic modality
Keywords: Anesthetics;Local;Appendectomy.

Dept. of Cardiology

29. Validation of Noninvasive Measurement of Cardiac Output Using Inert Gas Rebreathing in A Cohort of Patients with Heart Failure and Reduced Ejection Fraction

Mohamed Hassan, Kerolos Wagdy, Ahmed Kharabish, Peter Philip Selwanos, Ahmed Nabil, Ahmed Elguindy, Amr ElFaramawy, Mahmoud F. Elmahdy, Hani Mahmoud and Magdi H. Yacoub

Circulation-Heart Failure, 10(3) e003592: 1-8 (2017) IF: 6.372

Background: Cardiac output (CO) is a key indicator of cardiac function in patients with heart failure. No completely accurate method is available for measuring CO in all patients. The objective of this study was to validate CO measurement using the inert gas rebreathing (IGR) method against other noninvasive and invasive methods of CO quanti cation in a cohort of patients with heart failure and reduced ejection fraction.**Methods and Results**: The study included 97 patients with heart failure and reduced ejection fraction (age 42±15.5 years; 64 patients (65.9%) had idiopathic dilated cardiomyopathy and 21 patients (21.6%) had ischemic heart disease). Median left ventricle ejection fraction was 24% (10%–36%). Patients with atrial brillation were excluded. CO was measured using 4 methods (IGR, cardiac magnetic resonance imaging, cardiac catheterization, and echocardiography) and indexed to body surface area (cardiac index [CI]). All studies were performed within 48 hours. Median CI measured by IGR was 1.75, by cardiac magnetic resonance imaging was 1.82, by cardiac catheterization was 1.65, and by echo was 1.7 L·min−1·m−2. There were signi cant modest linear correlations between IGR-derived CI and cardiac magnetic resonance imaging–derived CI (r=0.7; P<0.001), as well as cardiac catheterization–derived CI (r=0.6; P<0.001). Using Bland–Altman analysis, the agreement between the IGR method and the other methods was as good as the agreement between any 2 other methods with each other.**Conclusions**: The IGR method is a simple, accurate, and reproducible noninvasive method for quanti cation of CO in patients with advanced heart failure. The prognostic value of this simple measurement needs to be studied prospectively.
Keywords: Cardiac Output; Catheterization; Echocardiography; Heart Failure;Magnetic Resonance Imaging.

30.Bioactive Lipids and Circulating Progenitor Cells in Patients with Cardiovascular Disease

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Stem Cells Translational Medicine, 6: 731-735 (2017) IF: 4

Bone marrow-derived progenitor cells are mobilized into the peripheral blood after acute myocardial injury and in chronic ischemic heart disease. However, the mechanisms responsible for this obilization are poorly understood. We examined the relationship between plasma levels of bioactive lipids and number of circulating progenitor cells (CPCs) in patients (N = 437) undergoing elective or emergent cardiac catheterization. Plasma levels of sphingosine-1 phosphate (S1P) and ceramide-1 phosphate (C1P) were quantified using mass spectrometry. CPCs were assessed using flow cytometry. S1P levels correlated with the numbers of CD341, CD341/CD1331, and CD341/CXCR41 CPCs even after adjustment for potential confounding factors. However, no significant correlation was observed between C1P levels and CPC count. Plasma levels of S1P correlated with the number of CPCs in patients with coronary artery disease, suggesting an important mechanistic role for S1P in stem cell mobilization. The therapeutic effects of adjunctive S1P therapy to mobilize endogenous stem cells need to be investigated
Keywords: Sphingosine-1 Phosphate X Ceramide-1 Phosphate X Circulating Progenitor Cell X Mobilization X Coronary Artery Disease.

31. Early Postoperative Paravalvular Leak Among Egyptian Population: an Observational Study

Noha Hassanin , Yasser Sharaf , Waleed Ammar and Amr Y.H. Sayed

Journal Saudi Heart Association, 29: 160-168 (2017)

Objectives: Several reports described the incidence of postoperative paravalvular leakage (PVL) early after valve replacement surgery, however, there is a paucity of data regarding the outcomes and complications correlated to the severity of PVL. The aim of the current study was to evaluate the incidence, causes, and short term outcome of early postoperative PVL.**Methods:** Data were collected from patients presenting to the cardiovascular department at Cairo University Hospital for aortic and/or mitral valve replacement surgery from May 2014 to May 2015. Transthoracic echocardiography (TTE) was done for all patients early postoperative. Transesophageal echocardiography (TEE) was done if diagnosis was not confirmed by TTE. All patients with detected PVL were subjected to TTE and TEE after a 3 month follow-up period. Results: Two hundred patients were enrolled in the study. Seventy five percent of patients were known to have rheumatic heart disease, while 16.5% had infective endocarditis. The mitral valve was replaced in 40% of patients,the aortic valve was replaced in 36%, and other patients had both valves replaced. Early postoperative period PVL was detected in 25 patients. The most common underlying etiologies were rheumatic heart disease and infective endocarditis. PVL was common in patients with both valves replaced compared with either mitral or aortic valve replacement. Infective endocarditis as underlying valve disease was significantly high in patients with PVL compared with those without ($p < 0.001$).**Conclusion:** The incidence of PVL was high in patients with both valves replaced compared with either mitral or aortic valve replacement. Moreover, every patient with PVL should be properly investigated for infective endocarditis. Surgical intervention, although associated with high morbidity and mortality, reduces PVL recurrence.

Keywords: Infective Endocarditis;Paravalvular Leak;Prosthetic Heart Valve.

32. Real-Time Localization of Ventricular Tachycardia Origin from the 12-Lead Electrocardiogram

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Jacc: Clinical Electrophysiology, 3 (7): 687-699 (2017)

Objectives The aim of this study was to develop rapid computational methods for identifying the site of origin ofventricular activation from the 12-lead electrocardiogram.**Background** Catheter ablation of ventricular tachycardia in patients with structural heart disease frequently relieson a substrate-based approach, which may use pace mapping guided by body-surface electrocardiography to identifyculprit exit sites.METHODS Patients undergoing ablation of scar-related VT (n ¼ 38) had 12-lead electrocardiograms recorded duringpacing at left ventricular endocardial sites (n ¼ 1,012) identified on 3-dimensional electroanatomic maps and registeredto a generic left ventricular endocardial surface divided into 16 segments and tessellated into 238 triangles;electrocardiographic data were reduced for each lead to 1 variable, consisting of QRS time integral. Two methods forestimating the origin of activation were developed: 1) a discrete method, estimating segment of activation originusing template matching; and 2) a continuous method, using population-based multiple linear regression to estimatetriangle of activation origin. A variant of the latter method was derived, using patient-specific multiple linearregression.**Results** The optimal QRS time integral included the first 120 ms of the QRS interval. The mean localization error ofpopulation-based regressions was 12 8 mm. Patient-specific regressions can achieve localization accuracy better than5 mm when at least 10 training-set pacing sites are used; this accuracy further increases with each added pacing site.**Conclusions** Computational intraprocedure methods can automatically identify the segment and site of leftventricular activation using novel algorithms, with

Keywords: Ventricular Tachycardia Origin From The 12-Lead.

Dept. of Cardiothoracic Surgery

33. Predictors of Surgical Outcome in Isolated Tricuspid Valve Endocarditis: Single Center Experience if 60 Patients

Mahmoud Singer, Hesham Alkady, Tarek Mohsen, Amr Roushdy, Alsayed Kamel Akl and Marwa Mashaal

Thoracic and Cardiovascular Surgeon, vol:65(08): 634-638: 634-638 (2017) IF: 1.424

Background Tricuspid valve (TV) endocarditis may be associated with serious complications, and 25% of patients require surgical intervention. However, indications and outcomes of surgery are not clearly identified. In this study, 60 patients are retrospectively reviewed to determine preoperative predictors of surgical outcome.**Patients and Methods** Sixty patients with isolated TV endocarditis who underwent surgery in the period between January 2012 and December 2016 are reviewed retrospectively from the medical records of Cairo University Hospitals. Forty-two (70%) patients were males, and 18 (30%) were females with a mean age of 29.3 ± 10.6 years. Eleven patients had an underlying cardiac lesion, and 27 patients were intravenous (IV)-drug addicts.Results TV repair could be done in nine (15%) patients, and the rest received TV replacement with biological valves. Twenty-four (40%) patients experienced postoperative complications. On multivariate analysis, a vegetation size >2.2 cm was a significant preoperative predictor for embolic complications and prolonged ventilation. In-hospital mortality occurred in 10 (16.67%) patients. Significant preoperative predictors of mortality were pulmonary embolization, congestive heart failure (HF), and the presence of pericardial effusion. During a mean follow-up period of 25 ± 12.6 months with echocardiography, two (4%) IV drug user patients developed recurrence of infection and needed reoperation.

Keywords: Right-Sided Infective Endocarditis;Tricuspid Valve Endocarditis;Predictors Of Surgical Outcomes.

Dept. of Clinical & Chemical Pathology

34. Adam10-Mediated Icos Ligand Shedding on B Cells is Necessary for Proper T Cell Icos Regulation and T Follicular Helper Responses

Joseph C. Lownik, Andrea J. Luker, Sheela R. Damle, Lauren Folgosa Cooley, Riham El Sayed, Andreas Hutloff, Costantino Pitzalis, Rebecca K. Martin, Mohey Eldin M. El Shikh and Daniel H. Conrad

Journal Of Immunology, 199: 2305-2315 (2017) IF: 4.856

The proper regulation of ICOS and ICOS ligand (ICOSL) has been shown to be essential for maintaining proper immune homeostasis. Loss of either protein results in defective humoral immunity, and overexpression of ICOS results in aberrant Ab production resembling lupus. How ICOSL is regulated in response to ICOS interaction is still unclear. We demonstrate that a disintegrin and metalloproteinase (ADAM)10 is the primary physiological sheddase of ICOSL in mice and humans. Using an in vivo system in which ADAM10 is deleted only on B cells, elevated levels of ICOSL were seen. This increase is also seen when ADAM10 is deleted from human B cell lines. Identification of the primary sheddase has allowed the characterization of a novel mechanism of ICOS regulation. In wild-type mice, interaction of ICOS/ICOSL results in ADAM10-induced shedding of ICOSL on B cells and moderate ICOS internalization on T cells. When this shedding is blocked, excessive ICOS internalization occurs. This results in severe defects in T follicular helper development and TH2 polarization, as seen in a house dust mite exposure model. In addition, enhanced TH1 and TH17 immune responses are seen in experimental autoimmune encephalomyelitis. Blockade of ICOSL rescues T cell ICOS surface expression and rescues, at least in part, T follicular helper numbers and the abnormal Ab production previously reported in these mice. Overall, we propose a novel regulation of the ICOS/ICOSL axis, with ADAM10 playing a direct role in regulating ICOSL, as well as indirectly regulating ICOS, thus controlling ICOS/ICOSL-dependent responses.

Keywords: Adam10;Icos;Icos Ligand;T Follicular Helper.

35. Molecular and Serological Assessment of Parvovirus B-19 Infection in Egyptian Children with Sickle Cell Disease

Manal Mohamed Makhlouf, Sahar Gamil Elwakil and Nihal Salah Ibrahim

Journal Of Microbiology, Immunology And Infection, 50(5): 565-569 (2017) IF: 2.973

Background/Purpose: Human parvovirus B-19 (PB-19) is a cause of hemolysis, red blood cell aplasia, and severe conditions in patients with sickle cell anemia, but the molecular mechanisms of the infection are still insufficiently understood. This study aimed to detect PB-19 DNA together with its antibodies in the sera of Egyptian children with sickle cell disease and to assess the contribution of this infection, which causes transient cessation of erythropoiesis, in precipitating severe anemia in some cases.**Methods:**One hundred children with sickle cell disease seeking medical advice in the pediatric-hematology clinic were recruited. Sera of the patients were compared with those of 60 healthy children regarding the presence of PB-19 immunoglobulin (Ig)G and IgM as well as detection of its DNA by nested-polymerase chain reaction technique.RESULTS:There were statistically significant differences in the prevalence of PB-19 IgM, IgG, and DNA among patients when compared with controls ($p < 0.001$, $p = 0.001$, and $p < 0.001$ respectively). Acute PB-19 infection detected by positive IgM and DNA was found in 30% of the patients, while chronic PB-19 infection detected by positive IgG and DNA was detected in 24% of the patients. Anemia was worse in children with acute PB-19 infection than in those with chronic infection, while anemia was mild in children with old infection.**Conclusion:**PB-19 infection is detected at high rates among Egyptian children with sickle cell disease and it may result in severe anemia. So, PB-19 must be suspected and screened for in such group of patients.

Keywords: Elisa;Nested Pcr;Parvovirus B-19;Sickle Cell Disease.

36. Study of Serum Syndecan-1 Levels in A Group of Egyptian Juvenile Systemic Lupus Erythematosus Patients

Naglaa Abd Elrahman Mosaad, Hala Mohamed Lotfy, Yomna Mohamed Farag, Rasha Hossam El-Din Mahfouz and Rasha Mohamad Hosny Shahin

Immunology Letters, 181: 16-19 (2017) IF: 2.86

The aim of the study was to assess the serum levels of Syndecan-1 in a group of Egyptian juvenile systemic lupus erythematosus (JSLE) patients and to study any possible associations with disease activity, renal activity and organ damage. Serum level of Syndecan-1 was assessed in 60 Egyptian JSLE patients and 30 apparently healthy age and gender matched children using ELISA. SLE Disease Activity Index-2000 (SLEDAI-2K), renal SLEDAI-2K, renal activity score and the Systemic Lupus International Collaborating Clinics/American College of Rheumatology (SLICC/ACR) Damage Index were assessed for all patients. Serum SDC-1 levels were higher in patients with JSLE than in healthy controls ($p < 0.001$) and were positively correlated with SLEDAI-2K ($p < 0.001$), with renal SLEDAI score ($p = 0.008$) and renal activity score ($p = 0.04$). So, Syndecan-1 might be used as a marker for disease activity and renal activity in JSLE patients.

Keywords: Juvenile Systemic Lupus Erythematosus; Lupus Nephritis; Syndecan-1.

37. Viral Etiology, Seasonality and Severity of Hospitalized Patients with Severe Acute Respiratory Infections in the Eastern Mediterranean Region, 2007–2014

Katherine C. Horton ,Erica L. Dueger,Amr Kandeel, Mohamed Abdallat, Amani El-Kholy, Salah Al-Awaidy, Abdul Hakim Kohlani, Hanaa Amer, Abel Latif El-Khal, Mayar Said, Brent House, Guillermo Pimentel and Maha Talaat

Plos One, 12: 1-17 (2017) IF: 2.806

IntroductionLittle is known about the role of viral respiratory pathogens in the etiology, seasonality orseverity of severe acute respiratory infections (SARI) in the Eastern Mediterranean Region.MethodsSentinel surveillance for SARI was conducted from December 2007 through February 2014 at20 hospitals in Egypt, Jordan, Oman, Qatar and Yemen. Nasopharyngeal and

oropharyngealswabs were collected from hospitalized patients meeting SARI case definitions and were analyzedfor infection with influenza, respiratory syncytial virus (RSV), adenovirus (AdV), humanmetapneumovirus (hMPV) and human parainfluenza virus types 1±3 (hPIV1-3). We analyzedsurveillance data to calculate positivity rates for viral respiratory pathogens, describe the seasonalityof those pathogens and determine which pathogens were responsible for moresevere outcomes requiring ventilation and/or intensive care and/or resulting in death.ResultsAt least one viral respiratory pathogen was detected in 8,753/28,508 (30.7%) samplestested for at least one pathogen and 3,497/9,315 (37.5%) of samples tested for all pathogens±influenza in 3,345/28,438 (11.8%), RSV in 3,942/24,503 (16.1%), AdV in 923/9,402(9.8%), hMPV in 617/9,384 (6.6%), hPIV1 in 159/9,402 (1.7%), hPIV2 in 85/9,402 (0.9%)and hPIV3 in 365/9,402 (3.9%). Multiple pathogens were identified in 501/9,316 (5.4%) participantstested for all pathogens. Monthly variation, indicating seasonal differences in levels

Keywords: Viral Etiology;Respiratory Infections;Mediterranean Countries;Egypt;Seasonality.

38. A Replicable Cd271+ Mesenchymal Stromal Cell Density Score: Bringing the Dysfunctional Myelodysplastic Syndrome Niche to the Diagnostic Laboratory

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Leukemia & Lymphoma, 58(7): 1730-1732 (2017) IF: 2.755

In myelodysplastic syndromes (MDS) the neoplastic hematopoieticpopulation induces a supportive microenvironmentthat promotes disease progression.[1,2] We havepreviously shown that human CD34þhematopoieticstem/progenitor cells are in direct contact withCD271þmesenchymal stromal cells (MSCs) in intact bonemarrow.[3] We then used image analysis-aided quantitationof tissue microarrays constructed from diagnosticbone marrow core biopsies to retrospectively studyCD271þMSC density in MDS. While we cannot excludethe presence of rare non-MSC cells immunohistochemicallyreactive for CD271, the characteristic delicate arborizingmorphology is quite uniform within thehighlighted population. We showed that CD271þMSCdensity is increased in the bone marrow of patients withhigh grade MDS and is associated with shorter overallsurvival independent of known prognostic factors.[4] Asemi-quantitative CD271þMSC density scoring schemeshowed moderate concordance among three pathologists,and independently correlated with poor overall survivalindependent of established prognostic factors.[4]Diagnostic pathology however is performed on wholecore biopsies rather than 1mm tissue microarray cores,and this presents the challenge of providing a reproduciblegrade based on evaluation of a whole core biopsy.We have now devised a semi-quantitative CD271þMSCgrading scheme based conceptually on the myelofibrosisgrading scheme [5] to facilitate prospective study of thiscandidate independent prognostic marker in a mannerthat is adoptable in routine clinical practice.

Keywords: Cd271 ;Myelodysplastic Syndrome.

39.Serotypes of Streptococcus Pneumoniae in Egyptian Children: Are They Covered by Pneumococcal Conjugate Vaccines?

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European Journal Of Clinical Microbiology & Infectious Diseases, 36: 2385-2389 (2017) IF: 2.727

In Egypt, pneumococcal vaccines have not yet been introduced as being compulsory. Identification of the circulating serotypes in Egypt is mandatory to determine whether or not the pneumococcal vaccines will be beneficial. The current study aims to identify the serotypes, vaccine coverage, and antimicrobial resistance of Streptococcus pneumoniae colonizing the nasopharynx of Egyptian children younger than 5 years old. The study was conducted in two successive winter seasons (December 2012-February 2013 and December 2013-February 2014). Two hundred children were enrolled, aged from 6 months to 5 years, excluding those with fever, signs of infection, history of antibiotic intake, and hospitalization in the preceding month. Nasopharyngeal (NP) secretions were collected, subjected to culture, and underwent antibiotic susceptibility testing if positive for pneumococci. Real-time polymerase chain reaction (PCR) and serotyping by sequential multiplex PCR for positive cases were included as well. Streptococcus pneumoniae was isolated from 62 subjects. All isolates were sensitive to vancomycin and levofloxacin, but the majority showed resistance to multiple antibiotics. PCR was positive for pneumococci in 113 subjects (56.5%). The most commonly detected serotypes (st) were 6A6B6C (n = 21, 20.8%), 19F (n = 19, 18.8%), 1 (n = 11, 10.9%), 34 (n = 8, 7.9%), and 19A (n = 6, 5.9%). The theoretical coverage of the PCV13 vaccine for the detected serotypes was 72.4%, while that of PCV10 was 65.5%. Based on these percentages, we recommend including pneumococcal conjugate vaccines in the Egyptian national vaccination program.

Keywords: Streptococcus Pneumoniae Egyptian Children Vaccines.

40. Association of Toll-Like Receptor 3 and Toll-Like Receptor 9 Single Nucleotide Polymorphisms with Hepatitis C Virus Infection and Hepatic Fibrosis in Egyptian Patients

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American Journal Of Tropical Medicine And Hygiene, 96(3): 720-726 (2017) IF: 2.549

Toll-like receptors (TLRs) are recognized as fundamental contributors to the immune system functionagainst infections. Hepatitis C virus (HCV) infection represents a global health problem especially in Egypt having thehighest HCV prevalence worldwide where HCV infection is a continuing epidemic. The aim of the present study wasto investigate the possible association between genetic variation in TLR-3 and TLR-9 and HCV infection and hepaticfibrosis in chronic HCV-positive Egyptian patients. The present study included 100 naïve chronic HCV-positivepatients and 100 age- and sex-matched healthy controls. Genotyping of TLR-3 (_7 C/A [rs3775296]), TLR-3(c.1377C/T [rs3775290]) and TLR-9 (1237T/C [rs5743836]) were done by polymerase chain reaction restriction fragmentlength

polymorphism technique. Frequency of polymorphic genotypes in TLR-3 (_7 C/A), TLR-3 (c.1377C/T)and TLR-9 (1237T/C) were not significantly different between studied HCV-positive patients and controls withP values 0.121, 0.112, and 0.683, respectively. TLR-3 c.1377 T-allele was associated with advanced stage of hepaticfibrosis (P = 0.003).
Keywords: Tlr-3; Tlr-9; Hcv; Fibrosis; Egypt.

41.The Emergence of A Novel Sequence Type of Mdr Acinetobacter Baumannii from the Intensive Care Unit of an Egyptian Tertiary Care Hospital

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Annals Of Clinical Microbiology And Antimicrobials, 16 (2017) IF: 2.376

Background and aim: of workAcinetobacter baumannii is known for nosocomial outbreaks worldwide. In this study, we aimed to investigate the antibiotic susceptibility patterns and the clonal relationship of A. baumannii isolates from the intensive care unit (ICU) of an Egyptian hospital.MethodsIn the present study, 50 clinical isolates of multidrug resistant (MDR)-A. baumannii were obtained from patients admitted into the ICU from June to December 2015. All isolates were analyzed for antimicrobial susceptibilities. Multiplex PCR was performed to detect genes encoding oxacillinase genes (bla OXA-51-like, bla OXA-23-like, bla OXA-24-like, and bla OXA-58-like). Multilocus sequence typing (MLST) based on the seven-gene scheme (gltA, gyrB, gdhB, recA, cpn60, gpi, rpoD) was used to examine these isolates.ResultsAll A. baumannii clinical isolates showed the same resistance pattern, characterized by resistance to most common antibiotics including imipenem (MIC ≥ 8μ/mL), with the only exception being colistin. Most isolates were positive for bla OXA-51-like and bla OXA-23-like (100 and 96%, respectively); however, bla OXA-24-like and bla OXA-58-like were not detected. MLST analysis identified different sequence types (ST195, ST208, ST231, ST441, ST499, and ST723) and a new sequence type (ST13929) with other sporadic strains.ConclusionsMDR A. baumannii strains harboring bla OXA-23-like genes were widely circulating in this ICU. MLST was a powerful tool for identifying and epidemiologically typing our strains. Strict infection control measures must be implemented to contain the worldwide spread of MDR A. baumannii in ICUs.
Keywords: Mdr-A;Baumannii;Blaoxa-23-Like;Mlst.

42. Effect of Procedural-Related Variables on Melanocyte– Keratinocyte Suspension Transplantation in Nonsegmental Stable Vitiligo: A Clinical and Immunocytochemical Study

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Dermatologic Surgery, 43(2): 226-235 (2017) IF: 2.351

Background: Melanocyte-keratinocyte suspension (M-K susp) is gaining popularity for vitiligo treatment. Few studies have addressed procedure-related variables.**Objective:**To assess the effect of different M-K susp procedure-related variables on the clinical outcome in stable vitiligo.**Methods:**This prospective multicenter comparative study included 40 cases with nonsegmental stable vitiligo. Donor site was either a skin graft in noncultured epidermal cell suspension (NCECS) or hair follicle units in outer root sheath hair follicle suspension (ORSHFS). Recipient site was prepared by either cryoblebbing or CO2 laser resurfacing. Cell counts and viability were recorded in the cell suspensions. Tissue melanocytes and keratinocytes were examined by melan-A and cytokeratin, respectively. Assessment of repigmentation was performed 18 months after the procedure.**Results:**Thirty-seven subjects completed the study. Cell count was significantly lower in the ORSHFS compared with NCECS with no significant difference in the repigmentation outcome. On comparing techniques of recipient site preparation, homogenicity was better in the CO2 group. Elbows and knees responded better to CO2 resurfacing, whereas distal fingers responded better to combination of cryoblebbing with NCECS.**Conclusion:**Using different techniques in M-K susp produces comparable results. However, the distal fingers showed better results using combination of donor NCECS and recipient cryoblebs.
Keywords: Vitiligo; M-K Susp.; Egypt.

43. Mn1 And Pten Gene Expression in Acute Myeloid Leukemia

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Cancer Biomarkers, 18: 177-182 (2017) IF: 2.274

Objective: Multiple genetic alterations with prognostic significance have been discovered in acute myeloid leukemia (AML).We studied the expression level of two genes, Meningioma1 (MN1) and Phosphatase and Tensin homolog (PTEN) to determinetheir expression in AML patients and their role as prognostic markers.**Methods:** The study included 50 cytogenetic normal de novo AML cases and 10 controls, Their level was detected by Realtime Reverse Transcription-Polymerase Chain Reaction.**Result:** Relative mRNA expression of MN1 was significantly higher (p value < 0.001) and PTEN expression was significantlylower (p value = 0.002). No correlation was found between neither MN1 nor PTEN mRNA expression and overall survival (pvalue = 0.212 and 0.310) respectively.**Conclusion:** Although our study suggests a role for MN1 gene and PTEN genes in AML, we could not recommend theiruse as routine diagnostic and prognostic markers for AML in Egyptian population.
Keywords: Aml; Mn1; Pcr; Pten; Prognosis.

44. Evaluating the Impact of the Abo Blood Group on The Clinical Outcome of Thrombotic Thrombocytopenic Purpura Associated with Severe Adamts13 Deficiency

E Hussein and J Teruya

Vox Sanguinis, 112: 434-442 (2017) IF: 2.192

Background and Objectives Thrombotic thrombocytopenic purpura (TTP) is caused by the decrease of ADAMTS13, leading to the accumulation of ultra large von Willebrand factor (ULVWF). It was proposed that the distribution of blood group O among TTP patients may be potentially lower than expected because of the lower levels of VWF. The aim of this study was to explore the relationship between various blood groups and the clinical outcome in TTP. **Materials and Methods** Thirty-three patients with TTP with severe ADAMTS13 deficiency were studied. Data on blood group, relapse, number of plasma exchange sessions, replacement fluid and mortality were analysed. Results Mortality rate was 152% and it was not impacted by blood group. The distribution of group O among patients with idiopathic TTP was lower (12%) than expected (30%). Patients with blood group O required more sessions to achieve remission than did those with group B (P = 002). Cryo-supernatant was used in three refractory patients with group O, who failed to respond to fresh-frozen plasma and complete remission was achieved. The overall number of relapsing episodes was 7 of 33 (212%), and it was not impacted by blood group. **Conclusion** Although blood group O appeared to provide protection against TTP, more sessions were required to achieve remission. Cryo-supernatant improved the clinical outcome in refractory patients with group O. Future studies may be warranted to determine whether higher baseline VWF can be a trigger for TTP, or can confer protection by competing with a newly secreted ULVWF for platelet binding.

Keywords: Adamts13; Abobloodgroup;Thromboticthrombocytopenic Purpura.

45. Association of Osteopontin Gene Polymorphisms with Colorectal Cancer

Kamal A, Darwish RK, Saad S, Salama M, El-Baradie TS and Mahmoud HG and Elshiwy Y.

Cancer Investigation, 35(2): 71-77 (2017) IF: 2.007

We investigated the association of the Osteopontin (OPN) (rs9138 and rs1126616) polymorphisms with colorectal cancer (CRC). One hundred CRC patients and 112 healthy individuals were subjected to OPN (rs9138 and rs1126616) genotyping and measurement of OPN protein plasma level. The C allele of OPN rs1126616 and the CC haplotype were significantly higher in CRC patient (p = 0.036, 0.003, respectively). In females, the C allele of OPN rs9318 (A/C) polymorphism was significantly associated with increased CRC risk (p = 0.036). The plasma OPN level >104.35 ng/mL was significantly associated with CRC. Our findings suggest a significant role played by OPN (rs9138 and rs1126616) in colorectal carcinogenesis.

Keywords: Colorectal Cancer;Gene Polymorphism;Opn Rs1126616;Opn Rs9138;Osteopontin.

46. Role of Apob-516C/T Promoter Gene Polymorphism in the Risk of Hepatitis C Virus Infection in Egyptian Patients and in Gender Susceptibility

Rania H. Khalifa, Dalia A. Labib, Mohamed A. Kamel, Rasha Mohamad Hosny Shahin, Dina M. Rasheed Bahgat, Nermine Magdi Riad, Engy El Khateeb, Amr M. El-deeb and Marwa Hassan

Journal Of Medical Virology, 89: 1584-1589 (2017) IF: 1.935

At least 1 in 10 of the Egyptian population aged 15-59 is burdened with hepatitis C virus (HCV) infection, stamping Egypt the highest country harboring HCV worldwide. Considerable evidence supported the involvement of host genetic factors in the pathogenesis of HCV and the possibility of implementation in target therapies. ApoB gene polymorphisms are postulated to affect the susceptibility of HCV infection. Hence, we aimed to evaluate the relationship between ApoB-516C/T promoter gene polymorphism and HCV infection in a cohort of Egyptian patients and to explore whether higher levels of low-density lipoprotein (LDL) might compete with lipoviral particles (LVP) in the binding to LDL receptor (LDLR), thus escaping infection. Ninety-seven HCV patients and 96 matched controls were enrolled in this study. We genotyped ApoB-516C/T using PCR-RFLP method. ApoB concentrations were measured by immunoturbidimetric assay. The genotype and the allele frequencies of ApoB-516C/T promoter gene polymorphism in cases were statistically insignificant compared with healthy individuals (P = 0.109, 0.125, respectively). Sex stratification showed significantly lower counts of C/T genotype in female patients compared with female controls (P = 0.011, OR = 0.132, 95% CI = 0.026-0.657). Significantly higher levels of LDL and ApoB were detected in the control group (P < 0.001). This study shows that the ApoB-516C/T promoter gene polymorphism has no impact on the risk of HCV infection. However, the C/T genotype may be a protective factor for our female cohort. Further studies with larger samples are needed to verify this genetic gender diversity. Additionally, high levels of LDL and ApoB might prevent HCV infection.

Keywords: Apob Promoter Gene Polymorphism; Egypt; Hcv; Ldlr; Lvp.

47. Itpa Gene Polymorphism (94C>A) Effects on Ribavirin-Induced Anemia During Therapy in Egyptian Patients with Chronic Hepatitis C

Maissa El Raziky, Naglaa A. Zayed, Amin Abdel Baki, Shimaa A. Mansour and Rasha M. H. Shahin

Journal Of Medical Virology, 89: 1823-1829 (2017) IF: 1.935

Inosine triphosphatase (ITPA) gene variants can protect against ribavirin (RBV)-induced anemia in patients treated for chronic hepatitis C. The aim of this study was to determine the relationship between genetic variants of ITPA polymorphism, anemia, RBV dose reduction, and treatment response in hepatitis C virus (HCV)-infected patients. This study was conducted on 97 Egyptian chronic HCV patients who were scheduled for pegylated-interferon (PEG-INF) /RBV therapy. ITPA genotypes rs1127354 were determined by Real Time PCR melting curve analysis. Effects of ITPA polymorphism on hemoglobin (Hb) levels, RBV dose reduction and treatment response were

analyzed. The homozygous wild genotype (CC) was associated with Hb reduction at week 4 (P = 0.004). The minor allele protected against Hb reduction. No association with sustained virological response was observed (P = 0.492). Female gender; lower baseline Hb and higher baseline WBC were associated with week 4 anemia (P = 0.04; P = 0.023; 0.033, respectively). The ITPA gene polymorphism rs1127354 heterozygous genotype (CA) may influence Hb levels and protect against hemolytic anemia during RBV-containing regimens for HCV. However, such findings were not significantly related to treatment outcomes. Patients with wild ITPA genotype (CC) experienced a more Hb drop and RBV dose reductions more frequently.

Keywords: Anemia;Chronic Hepatitis C;Itpa Polymorphism; Ribavirin.

48. Rapid Screening for Group B Streptococcus in Near-Term Pregnant Women by Granada(Tm) Biphasic Broth

Mona Wassef, Doaa Ghaith, Rana M. A. Abdella and Mohamed Kamel

Journal Of Maternal-Fetal & Neonatal Medicine, 30: 1540-1543 (2017) IF: 1.826

Background: Prenatal screening for group B Streptococcus (GBS) colonization can reduce the incidence of neonatal GBS infections. We aimed to improve the screening-based approach of GBS in a limited resources antenatal care clinic by using Strep B Granada™ Biphasic Broth.**Methods:** This study included 80 pregnant women between 35 and 37 weeks of gestation, who attended the antenatal care clinic of Kasr El-Aini University Hospital from November 2013 to January 2014. Two high vaginal swabs were collected, then transported using Amies transport medium. One vaginal swab was processed by conventional culture-based methods on 5% sheep blood agar plates. The other swab was immersed in 3 mL selective enrichment broth (Granada™ Biphasic Broth bioMérieux).Results: Among 80 pregnant women, GBS was detected in 9 (11.25%) of the studied cases within 18–24 hours. Detection of orange-red colonies in GBS Granada broth was 100% specific for the presence of beta-hemolytic group B streptococci.**Conclusion:** Using Granada biphasic broth media was easy, affordable and shortened the turnaround time needed for the detection of GBS by conventional culture methods. Routine screening of pregnant women for vaginal GBS colonization by Granada™ Biphasic broth would allow properly timed prenatal antimicrobial prophylaxis to prevent possible neonatal infections.

Keywords: Group B Streptococcus; Granada(Tm) Biphasic Broth; Neonatal Infection; Maternal Vaginal Colonization.

49. Chimerism in Pediatric Hematopoietic Stem Cell Transplantation and its Correlation with the Clinical Outcome.

Hala Gabr, Ilham Youssry, Yasmin El-Ansary, Ghada Mosallam, Nermine Magdi Riada and Mariam Onsy . Hannaa

Transplant Immunology, 45: 53-58 (2017) IF: 1.78

Hematopoietic stem cell transplantation (HSCT) is the only hope to cure many inherited and acquired hematological disorders in children. Monitoring of chimerism helps to predict the post-transplantation events, with the intention to enhance the long-term disease free survival (DFS). The study aimed to investigate the importance of early chimerism detection to predict the clinical outcome following HSCT. The study included nine recipients (six β-thalassemia and three severe aplastic anemia patients) and their 10/10 HLA identical sibling donors. Chimerism detection was performed by analysis of short tandem repeat (STR) polymerase chain reaction (PCR) for detection and quantification of the relative amounts of donor and recipient cells present on day +28. Peripheral blood (PB) was the main stem cell source for HSC transplantation. Disease free survival (DFS) was 71.4% while overall survival was 85.7% for PBSC transplants at the median follow up period of 4years. The early detection of chimerism by PCR-STR analysis for children with β-thalassemia and aplastic anemia correlated with the outcome of HSCT in 8 (88.8%) patients. Complete chimerism was associated with disease-free survival while mixed chimerism and autologous patterns were associated with poor prognosis. In conclusion, early chimerism testing is clinically important in prediction of outcome after allogeneic HSC transplantation.

Keywords: Chimerism; Hematopoietic Stem Cell Transplantation (Hsct); Polymerase Chain Reaction (Pcr); Short Tandem Repeat (Str); Variable Number Tandem Repeat (Vntr).

50.Plasma Chitotriosidase and Carotid Intima-Media Thickness in Children with Sickle Cell Disease

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International Journal Of Hematology, 106: 648-654 (2017) IF: 1.61

The relationship between chronic hemolysis with subsequent iron overload, inflammation, and premature atherosclerosis has been documented in hemolytic anemias, particularly β-thalassemia. However, no such relationship has been established in sickle cell disease (SCD). We sought to evaluate SCD as a risk factor for early vascular insult by measuring carotid intima-media thickness (CIMT) and plasma chitotriosidase and to assess the role of the latter as a potential quantitative indicator of vascular inflammation and atherogenesis. Thirty SCD pediatric patients (3-18 years) and 30 matched controls were enrolled. Full clinical history, with hematological and biochemical parameters, was evaluated. CIMT and chitotriosidase activity were also assessed for all study participants. CIMT values were significantly higher in SCD patients (median 0.42; range 0.32-0.6 mm) compared to controls (0.36; 0.34-0.45 mm), P = 0.03. CIMT correlated positively with age (r = 0.460, P = 0.011), and total number of vascular incidents necessitating hospital admission (r = 0.439, P = 0.015). Similarly, chitotriosidase activity was significantly higher among SCD patients (median 59.6; range 7.3-512 nmol/ml plasma/h) compared to controls (32.7; 6.8-63.1 nmol/ml plasma/h), P < 0.001, and showed a positive correlation with serum ferritin (r = 0.517, P = 0.003) and CIMT (r = 0.535, P = 0.002). SCD children are at risk of developing premature atherogenic changes. Plasma chitotriosidase and CIMT may represent useful predictors of these changes.

Keywords: Atherosclerosis;Carotid Intima–Media Thickness;Chitotriosidase;Sickle Cell Disease;Vasculopathy.

51. Effect of Phototherapy on B and T Lymphocytes in Egyptian Infants Suffering from Neonatal Jaundice

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Allergologia Et Immunopathologia, 45 (3): 290-296 (2017) IF: 1.439

Background: Neonatal jaundice is one of the most common problems that affect newborninfants, and phototherapy is usually used for treatment.Objectives: Evaluation of the effect of phototherapy on neonatal immune system through measuringthe percentage of B and T lymphocytes and determining the frequency of developmentof infections and need for hospitalisation during the first six months of life.Methods: A prospective cohort study was conducted on 50 full term new-borns; 25 with indirecthyperbilirubinaemia and treated with conventional phototherapy and 25 healthy matchedneonates as untreated controls. The percentages of CD19+, CD4+ and CD8+ lymphocytes weremeasured by flow cytometry before phototherapy and 72 h after exposure. Follow-up of thestudy group for the occurrence of infections for a period of six months after phototherapy.Results: The study showed a significant difference in CD19+ lymphocytes percentage betweenpatients before phototherapy and controls (P value < 0.01), also a significant correlationbetween serum levels of total bilirubin in patients and CD19+ lymphocytes percentage (Pvalue < 0.05). There was no significant difference between the percentages of CD19+, CD4+ andCD8+ lymphocytes in patients before or after 72 h of exposure to phototherapy (P value > 0.05).Also, there was no correlation between the percentages of CD19+, CD4+ and CD8+ lymphocytesafter 72 h of exposure to phototherapy and the occurrence of infections (Gastrointestinal tractand Respiratory tract infection) after six months of follow-up (P value > 0.05). More studies areneeded with larger number of patients to determine the effect of phototherapy on immunesystem.

Keywords: B Lymphocytes; Indirect Hyperbilirubinaemia; Neonates; Phototherapy; T Lymphocytes.

52. Determinants of Infection Outcome in Hcv-Genotype 4

Rania A. Zayed, Dalia Omran, Abeer A. Zayed and Lobna O. Elmessery

Viral Immunology, 30(8): 560-567 (2017) IF: 1.432

Hepatitis C virus (HCV) infection represents a worldwide health problem and has been for long an attractive point of research due to diversity among different genotypes regarding unique geographical distribution and diverse treatment outcome. HCV is considered a major cause of chronic liver disease and cirrhosis, which leads to liver failure and hepatocellular carcinoma requiring liver transplantation. Of the HCV genotypes identified, HCV genotype 4 (HCV-4) is the least studied. HCV-4 is responsible for ∼10% of HCV infections and is common in the Middle East and Africa; recently it is increasingly prevalent in European Countries. HCV-4 is a continuing epidemic in Egypt, having the highest prevalence of HCV worldwide. "Know your epidemic, know your response" concept necessitates better understanding of HCV-4 characteristics to control disease dissemination and progression, which compromises the life quality of chronic HCV-infected patients. In this review, we discuss the epidemiology, natural history, and treatment options for patients with HCV-4 infection.

Keywords: Hcv-4;Epidemiology;Natural History;Treatment.

53. The Effect of Different Methods of Leucoreduction on Plasma Coagulation Factors

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Blood Coagulation And Fibrinolysis, 28: 117-120 (2017) IF: 1.367

Removal of leucocytes from blood products, namelyleucoreduction, improves the safety of blood transfusion byreducing adverse events associated with the incidentaltransfusion of leucocytes. Coagulation factors might becompromised during leucoreduction because of exposureof plasma to a variety of filter materials. The aim of thecurrent study was to assess the effect of different methodsof prestorage leucofiltration (apheresis and whole bloodfilters) on prothrombin time, international normalized ratio,partial thromboplastin time and factors V and VIII. There wasa significant prolongation of prothrombin time as well aselevation of international normalized ratio in plasma afterleucoreduction (14.5W0.7 s vs. 13.9W0.7 s, PU0.008 and1.14W0.07 vs. 1.09W0.07, PU0.005, respectively). Also,there was a statistically significant prolongation of activatedpartial thromboplastin time in nonleucoreduced plasma(55.6W9.9 s vs. 43.2W12.8 s, PU0.001). There was nosignificant filtration effect on factors V and VIII levels.Furthermore, there was no significant difference in factors Vand VIII levels between plasma filtered by inline whole bloodfilters and apheresis machine. Leucodepleted plasmaoriginating from both inline whole blood filter and apheresismachine maintained satisfactory levels of factors V and VIII.

Keywords: Apheresis;Coagulation Factors; Egypt; Filters; Leucoreduction.

54. Tap73 and Δnp73 Relative Expression in Egyptian Patients with Lymphoid Neoplasms

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Tumori, 103: 268-271 (2017) IF: 1.233

Background and Aims: The p73 gene has different isoforms with opposing anti- and pro-apoptotic functions. The pro-apoptotic activities are inhibited by overexpression of the dominant ΔNp73 isoform. The aim of this study was to detect the expression of the TAp73 and ΔNp73 isoforms in Egyptian patients with malignant lymphoid neoplasms. Their expression was analyzed by quantitative RT-PCR.**Patients and Methods:**The study included 30 B-NHL patients, 24 T-NHL patients, 16 ALL patients, 18 CLL patients, 22 patients with reactive lymphoid hyperplasia, and 6 healthy control subjects.**Results:**ALL and CLL patients expressed both isoforms at higher levels compared to lymphoma patients. Higher expression of TAp73 was found in both B-NHL and T-NHL (around 4-fold and 16-fold, respectively) in comparison to ΔNp73 (2-fold and 14-fold, respectively). In CLL patients both isoforms showed higher expression levels in comparison to

normal peripheral blood lymphocytes controls: nearly 27-fold for TAp73 and 233-fold for ΔNp73. All ALL patients showed higher expression of both studied isoforms than controls (9-fold for TAp73 and 386-fold for ΔNp73). The highest ΔNp73 expression along with a higher ΔNp73/TAp73 ratio (67-fold) was found in ALL patients compared with CLL patients (21-fold).**Conclusions:**A considerable number of lymphoma patients lacked the expression of either or both isoforms, while all lymphoid leukemia patients expressed both isoforms. The expression pattern differences of p73 isoforms may reflect differences in the biology of these malignancies.

Keywords: Tap73;Δnp73;Benign and Malignant Lymphoid Lesions;Quantitative Rt-Pcr.

55. Role of Mesenchymal Stem Cells in the Treatment of Testicular Toxicity Induced by Lambda-Cyhalothrin in Rats

Gabr, H., H. Abdellah, N. Shahin, M. Afifi and N. Al-Zail

Wulfenia, 24: 1-31 (2017) IF: 1.219

The present study aimed to investigate the therapeutic effects of mesenchymal stemcells (MSCs) on lambda-cyhalothrin (LCT)-induced testicular toxicity in rats. Thirtyadult male rats were divided into three groups: group I: normal control; group II:received LCT (1/10DL50 = 6.23 mg/kg body weight (b.w.), intraperitoneally (i.p.));group III: received LCT (6.23 mg/kg b.w.)+MSCs (1x106cells/animal, via the tailvein). LCT elicited significant ($p<0.001$) declines in the serum testosterone, proteinprofile, testicular glutathione (GSH) and superoxide dismutase (SOD) activity and theanti-inflammatory cytokine; interleukin-10 (IL-10), whereas, serum folliclestimulating hormone (FSH), luteinizing hormone (LH), lipid profile and proinflammatorycytokines, tumor necrosis factor (TNF-α) and interleukin-12 (IL-12)levels were significantly ($p<0.001$) increased as compared to the control group. Lightmicroscopic examination showed abnormal spermatogenic cells that displayingcytoplasmic vacuolization and nuclear pyknosis or karyolysis. Maturation arrest,hyalinization of the seminiferous tubules and congestion of the interstitial bloodvessels were also observed. Ultrastructure studies confirmed the light microscoperesults. Compared to LCT-group, LCT+MSCs-treated rats showed significantimprovement in the activity of all biochemical parameters and marked preservation inthe histological and ultrastructural configuration of the testis. Conclusion: Thustherapy with MSCs was effective in ameliorating LCT-induced testicular damage byimprovement of testicular function and structure as well as male fertility.

Keywords: Lambda-Cyhalothrin;Mesenchymal Stem Cells;Rat;Testis;Biochemistry;Microscopic Study.

56. Utilizing the Kcnj11 Gene Mutations in Spotting Egyptian Patients with Permanent Neonatal Diabetes Who Can Benefit from Treatment Shift Dina M.Utilizing the Kcnj11 Gene Mutations in Spotting Egyptian Patients with Permanent Neonatal Diabetes Who Can Benefit from Treatment Shift.

Dina M. Ahmed, Soha M. Abdel Dayem, Mona Abdel Kader, Rania H. Khalifa, Dalia H. El-Lebedy, Solaf A. Kamel and Shereen M. Shawky

Laboratory Medicine, 48 issue 3: 225-229 (2017) IF: 1.088

Background: Neonatal diabetes mellitus (NDM) is a monogenic form ofdiabetes mellitus. Until now, patients in developing countries who had this condition had been misdiagnosed as having type 1 diabetes mellitusand accordingly directed to erroneous, ineffective, and costly therapeuticregimens.Objective: To detect Egyptian patients who harbor pathological variant in the KCNJ11 gene, so that their treatment regimen can be modified as needed to increase its effectiveness.**Methods:** We sequenced KCNJ11 in 17 ethnic Egyptian probands diagnosed with diabetes mellitus before age 2 years.**Results:** A preliminary case individual harboring a KCNJ11 pathologicalvariant (p.R201H) was identified. The patient was successfully shifted from insulin therapy to sulfonylurea. Four previously identified benignvariants, namely, E23K, I337V, L270V, and A190A, were detected in thispatient.Conclusion: Implementing the findings of this molecular analysis could have a major clinical and nationwide economic impact on world health, especially in developing countries.

Keywords: Neonatal Diabetes Mellitus; Kcnj11 Gene; Sequencing;Sulfonylurea; Egypt.

57. The Effect of Monophosphoryl Lipid A on Maturation of Dcs From Patients with Acute Myeloid Leukaemia

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Iranian Journal Of Immunology, 14: 1-12 (2017) IF: 0.85

Background: Generation of monocyte-derived dendritic cells (MDDC) is induced inthe presence of GM-CSF and IL-4, and a maturation stimulus is added to the monocyteculture to obtain mature Dendritic Cells (DCs) suitable for therapy. TNF-α is the mostcommon cytokine used for activating DCs and generating mature MDDC either alone orin combination with other cytokines. **Objective:** To compare effects of traditionalcytokine cocktail (TNF-α + IL-1β) versus TLR4-agonist monophosphoryl lipid A on theviability, phenotype, cytokine profile and functionality of MDDC. **Methods:** The studyincluded 32 individuals; twenty Acute Myeloid Leukaemia (AML) cases in completeremission and 12 healthy volunteers. They were divided into 3 groups: Group 1: controlgroup: 12 subjects to measure the baseline levels of all markers in the monocyticpreparation; Group 2: cytokine cocktail (TNF-α) group, which included 10 AMLsubjects; Group 3: MPLA group which included 10 AML subjects. **Results:** TNF-αgroup showed higher expression of CD83 than MPLA group indicating higher capacityto induce DC maturation but both were similar in CD86, CCR7 and IL-10

expression.Preparation of dendritic cells from AML cases in remission and loading them withtumor peptides was successful. Conclusion: The effect of MPLA in DC maturation iscomparable with traditional DC maturation cocktail.
Keywords: Dcs Maturation;Monocyte-Derived Dcs.

58.The Development of Fviii Inhibitors in Relation to Il10 Gene Polymorphism in Hemophilia A Egyptian Pediatric Patients

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Fetal and Pediatric Pathology, 36: 184-189 (2017) IF: 0.613

Background: Development of inhibitors against Factor VIII (FVIII) in hemophilia A patients is a serious complication of therapy. Many cytokines, including interleukin-10 (IL10), may affect inhibitor development; however, literature data are not sufficient to prove this association. The aim of this study was to investigate the relation between FVIII inhibitor formation and IL10-1082A/G polymorphism among Egyptian hemophiliacs. **Methods:** Patients were screened for FVIII inhibitors using the Bethesda method. IL10-1082A/G polymorphism was detected by polymerase chain reaction–restriction fragment length polymorphism. **Results:** Six patients (12%) developed inhibitors. No statistically significant difference was found between inhibitor positive and negative patients regarding IL10-1082A/G genotypes, disease severity, or treatment-related variables (type of FVIII received, treatment regimen, age at first exposure to FVIII, and frequency of replacement therapy).**Conclusions:** FVIII inhibitor formation in this group of Egyptian hemophiliacs was not correlated to IL10-1082A/G polymorphism, disease severity, or any of the treatment variables.
Keywords: Hemophilia A;Fviii Inhibitors;Il10 Gene Polymorphism;Egypt.

59. Polymorphisms of Xeroderma Pigmentosum Genes (Xpc, Xpd, and Xpg) and Susceptibility to Acute Leukemia Among A Sample of Egyptian Patients

Iman Rifaat ElMahgoub, Heba Mahmoud Gouda, Mohamed Abdelmooti Samra , Iman AbdelMohsen Shaheen and Aya Hassan ElMaraashly

Journal of Hematopathology, 10: 3-7 (2017) IF: 0.277

DNA repair systems play a key role in protectingthe DNA from damage caused by different endogenous andenvironmental factors. Genetic polymorphisms in DNA repairgenes may lead to increased cancer susceptibility includingleukemia. Due to different environmental genetic interactionsamong each population, the aim of the current study was toassess the association between three genetic polymorphismsof xeroderma pigmentosum complementation group: XPD(rs13181), XPC (rs2228001), and XPG (rs17655) and the susceptibilityto acute leukemia in Egypt. The present study included50 patients with acute leukemia, in addition to 100normal volunteers as control group. Genotyping for the geneswas done by PCR-RFLP technique. The study revealed thatpatients homovariant for XPD had fourfold increased risk ofdeveloping AML (OR = 4.4, P = 0.025) either alone or withvariant genotypes of XPC and XPG. No statistically significantassociation was found between neither individual norcombined polymorphisms and disease risk of ALL in thisstudy. Determination of XPD polymorphism could be consideredas molecular markers associated with susceptibility todevelop AML.
Keywords: Xeroderma Pigmentosum Complementation Group; Genetic Polymorphisms;Acute Leukemia.

60. Comparative and Analytical Study on Active Toxoplasmosis to Assess the Igg Avidity in Correlation to Serological Profile in A Cohort of Egyptian Patients

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Comparative Clinical Pathology, 26: 1157-1163 (2017)

Proper diagnosis of toxoplasmosis is very important for proper treatment in manifested cases and to prevent congenital toxoplasmosis in case of pregnancy. Screening of 180 pregnant females by automated immune assay for Toxoplasma IgG and IgM Abs was done first then positive cases and some of negative cases were evaluated for the Toxoplasma IgG avidity test versus Toxoplasma IgM and IgA Abs using ELISA technique for the detection of active toxoplasmosis during gestation using IHA rising titer as reference test. Assessment of Toxoplasma IgM by ELISA compared with rising titer of IHA as a reference test revealed that the sensitivity, specificity, PPV, and NPP of IgM by ELISA were 66.67, 88.73, 42.86, and 95.45%, respectively. Assessment of Toxoplasma IgA Abs by ELISA compared with rising titer IHA as a reference test showed that the sensitivity, specificity, PPV, and NPP of IgA Abs by ELISA were 44.4, 92.96, 44.4, and 92.96%, respectively. Additionally, by assessment of Toxoplasma IgG avidity compared with rising titer of IHA as a reference test, the sensitivity, specificity, PPV, and NPP of Toxoplasma IgG avidity were 100, 98.59, 90%, and 100%, respectively. Detection of specific Toxoplasma IgM antibodies by ELISA is not always sufficient in the diagnosis of early and late Toxoplasma gondii infection during pregnancy, because Toxoplasma-specific IgM antibodies may persist as long as 18 months after acute acquired infection. Thus, the specific IgG avidity test should be used as more or less low cost tool to detect acute toxoplasmosis
Keywords: Active Toxoplasmosis Automated Immunoassay Indirect Hemagglutination Rising Titer Igg Avidity.

61. Circulating Hypermethylated Rassf1a as A Molecular Biomarker for Diagnosis of Hepatocellular Carcinoma

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Asian Pacific Journal of Cancer Prevention, 18: 1637-1643 (2017)

Background: Detection of circulating DNA can be applied for the diagnosis of many malignant neoplasms, including the hepatocellular carcinoma (HCC). The molecular pathogenesis of

HCC is complex, involving different genetic and epigenetic alterations, chromosomal aberrations, gene mutations and altered molecular pathways. RASSF1A is a well-established tumor suppressor gene which suffers frequent inactivation due to promoter hypermethylation of CPG islands in multiple tumors including HCC, resulting in the reduction or loss of gene expression.**Objective:**To examine the role of circulating RASSF1A as a non-invasive diagnostic marker for HCC. Participant and Methods: A total of 45 HCC patients with a background of HCV infection, 40 cases of HCV infection without tumours and 40 apparently healthy controls were subjected to full history taking, clinical examination, routine laboratory investigations, assessment of serum AFP and detection of circulating hypermethylated RASSF1A gene by methylation-sensitive restriction enzyme digestion and real-time PCR.**Results:**The level of hypermethylated RASSF1A was significantly elevated in the HCC group as compared to the HCV and control groups (p=0.001 for both). Copy number in serum was associated with increased tumor size (p value <0.001). On the other hand, no significant correlation was observed between RASSF1A and AFP (p=0.5). Using ROC curve analysis, the best cut-off for circulating serum RASSF1A to differentiate the HCC group was 8 copies/µl. **Conclusion:** The presence of hypermethylated RASSF1A in serum may be a useful and informative biomarker for HCC diagnosis and might be introduced as a screening method for populations at risk of HCC development.

Keywords: Hcc- Afp- Rassf1a Gene.

Dept. of Clinical Oncology And Nuclear Medicine

62. Cancer Diagnosis Disclosure Preferences of Family Caregivers of Cancer Patients in Egypt

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Psycho-Oncology, 26: 1758-1762 (2017) IF: 3.095

Objective: Family caregivers (FCs) of cancer patients are frequently seen as a barrier to honest communication with patients in Egypt. This study was conducted to investigate the attitude of FCs of cancer patients toward cancer diagnosis disclosure (CDD) and its determinants.MethodsA structured interview was used to assess the preferences of 288 FCs regarding CDD.**Results**According to the FCs, 85% of patients were aware of their diagnosis. The majority (81%) of FCs preferred CDD to patients. In case they developed cancer, 92% of FCs wanted to know their diagnosis and 88% wanted to inform their families. In a univariate analysis, factors associated with FCs' negative attitude toward CDD to patients were as follows: patient's lower level of education (P = .001), patient's rural residence (P < .001), hematological malignancies (P < .001), FC's belief that the patient is unaware of diagnosis (P < .001), FC's unwillingness to know his/her own cancer diagnosis (P < .001), and FC's unwillingness to inform his/her family about his/her cancer diagnosis (P < .001). Only 2 factors predicted independently the negative attitude of FCs toward CDD, the FC's belief that the patient is unaware of diagnosis (P < .001), and the FC's unwillingness to know his/her own cancer diagnosis (P = .049).**Conclusions**The results suggest that the majority of FCs of Egyptian cancer patients prefer CDD to patients. The finding that the vast majority of FCs of aware patients preferred CDD suggests that the reaction of Egyptian patients to CDD is acceptable by FCs. Family caregivers with a negative attitude toward CDD may be reflecting their own fears.

Keywords: Cancer;Culture;Diagnosis Disclosure;Egypt;Family Caregivers;Oncology.

63. Timing and Outcome of Referral to the First Stand-Alone Palliative Care Center in the Eastern Mediterranean Region, the Palliative Care Center of Kuwait

Khaled Al-Saleh, Ahmad Al-Awadi, Najla A. Soliman, Sobhy Mostafa, Mohammad Mostafa, Wafaa Mostafa and Samy A. Alsirafy

American Journal Of Hospice And Palliative Medicine, 34: 325-329 (2017) IF: 1.283

Background: Compared to other regions of the world, palliative care (PC) in the Eastern Mediterranean region is at an earlier stage of development. The Palliative Care Center of Kuwait (PCC-K) was established a few years ago as the first stand-alone PC center in the region. This study was conducted to investigate the timing of referral to the PCC-K and its outcome.Methods:Retrospective review of referrals to the PCC-K during its first 3 years of action. Late referral was defined as referral during the last 30 days of life.**Results:**During the 3-year period, 498 patients with cancer were referred to the PCC-K of whom 467 were eligible for analysis. Referral was considered late in 58% of patients. Nononcology facilities were more likely to refer patients late when compared to oncology facilities (P = 033). The palliative performance scale (PPS) was ≤30 in 59% of late referrals and 21% in earlier referrals (P < .001). Among 467 referred patients, 342 (73%) were eligible for transfer to the PCC-K, 102 (22%) were ineligible, and 23 (5%) died before assessment by the PCC-K consultation team. From the 342 eligible patients, the family caregivers refused the transfer of 64 (19%) patients to the PCC-K.**Conclusion:**Patients are frequently referred late to the PCC-K. Further research to identify barriers to PC and its early integration in Kuwait is required. The PPS may be useful in identifying late referrals.

Keywords: Palliative Care;Cancer;Eastern Mediterranean Region;Kuwait;Referral Timing;Palliative Performance Scale.

64. The Relationship Between Distressing Symptoms And Performance Status Among Cancer Patients Receiving Palliative Care

Fatma T. Hussenein, Hanaa Y. Hashem, Shaimaa M. El Hadary and Samy A. Alsirafy

Research In Oncology, 13: 51-55 (2017)

Background: Patients with advanced cancer experience distressing symptoms and progressive decline in theirperformance status (PS) as death approaches.Aim: To identify the relationship between symptom burden and PS of Egyptian cancer patients receiving palliative care.**Methods:** This was a prospective observational study that included 100 patients with advanced cancer. Symptom burdenwas assessed using the Arabic version of the revised Edmonton Symptom Assessment System (ESAS-r). Performancestatus was assessed using the Palliative Performance Scale (PPS).**Results:** The mean total ESAS-r score was 60.1 (±10.7). The most common symptom to be reported as severe was pain(93%) followed by tiredness (74%), poor wellbeing (67%), lack of appetite (62%), anxiety (60%) and drowsiness (56%).The

majority of patients (76%) had a PPS score ≤30 with an overall mean PPS score of 36.2 (±13.3). There was astatistically significant negative correlation between the total ESAS score and the PPS score (r = - 0.687, p = < 0.001).**Conclusion:** The results suggest that Egyptian patients with advanced cancer experience high symptom burden andsignificant decline in PS. The higher the symptom burden, the poorer the PS of patients with advanced cancer.

Keywords: Advanced Cancer;Symptom Burden;Performance Status;Palliative Care;Egypt.

65. Addition of 3-Day Aprepitant to Ondansetron And Dexamethasone For Prophylaxis of Chemotherapy-Induced Nausea and Vomiting Among Patients with Diffuse Large B Cell Lymphoma Receiving 5-Day Cisplatin-Based Chemotherapy

Raafat Abdel-Malek, Noha Abbas, Kyrillus S.Shohdy, Mohamed Ismail, Radwa Fawzy, Dalal S.Salem and Ezzat Safwat

Journal Of The Egyptian National Cancer Institute, 29: 155-158 (2017)

BackgroundNeurokinin-1 receptor antagonists, such as aprepitant are currently emerging as powerful prophylactic agents for chemotherapy-induced nausea and vomiting (CINV). Therefore, it is important to adjust the anti-emetic regimens based on personal risk factors of the patient, duration of the chemotherapy regimen and cost-effectiveness.PurposeTo determine the efficacy of the 3-day aprepitant along with ondansetron and dexamethasone in controlling CINV in patients with large B cell lymphoma receiving multiday-cisplatin regimen chemotherapy.**Methods**This is a pilot prospective cross-over trial. Patients were allocated to either aprepitant 125 mg on day 1 and 80 mg on days 2 & 3 or placebo in the first 2 cycles, with crossover to the opposite treatment in the 3rd and 4th cycles. The primary end point was complete response (CR) of both acute (days 1–5) and delayed (days 6–8) CINV. CR means neither to develop emetic episodes nor to use rescue anti-emetics medication.**Results**Twelve of the 15 patients recruited for the study were fully evaluable and completed 4 cycles of ESHAP regimen with a total of 48 cycles given. In the cycles with aprepitant and those without the CR were 83.3% and 0% respectively (p < 0.05). Patients receiving aprepitant in the first 2 cycles recorded less nausea in subsequent cycles that were given without aprepitant. This was not statistically significant.**Conclusion**This triple anti-emetic regimen showed efficacy in controlling the multi-day cisplatin-induced nausea and vomiting. Further randomized controlled trials are needed to compare between 3-day and 7-day aprepitant for multi-day cisplatin regimens.

Keywords: Aprepitant;Lymphoma;Multi-Day Cisplatin; Nausea;Vomiting.

66. Second-Line Chemotherapy in Advanced Non-Small Cell Lung Cancer (Nsclc): Single Institution Experience

Hanaa Attia, Noha Y. Ibrahim , Soha M. Talima and Ibrahim B. Elhassan

Research In Oncology, 13: 23-27 (2017)

Background: Lung cancer is the leading cause of cancer-related death worldwide. Non-small cell lung cancer (NSCLC) accounts for 80-85 %.**Methods:** In this retrospective hospital based study, 424 NSCLC patients "stage IIIb-IV" were enrolled to analyze the prognostic factors and survival after receiving second-line chemotherapy.**Results:** From 424 NSCLC patients, 236 (55.7%) had stage IIIb-IV disease. The majority (70%, 165/236) of these patients received best supportive care only and 30% (71/236) received first-line chemotherapy. Second-line chemotherapy was administered in 11.9% (28/236) patients after first-line chemotherapy. The median age of patients who received second-line was 58 years. The majority were males (64%). Sixty four percent had stage IV, 57% had an Eastern Cooperative Oncology Group (ECOG) performance status of 2-3, 72% had a body mass index of >18.5 kg/m2 and 57% had history of smoking. The median overall survival was 13 months (95% CI: 6.82-19.18). The first-line chemotherapy was platinum-based combination in all patients, and docetaxel was the second-line treatment in half of the patient. The most common side effects were hematological (93%) and gastrointestinal (78%). Higher risk of mortality was accompanied with age 40-60 years (HR: 5.53, 95% CI: 1.29-23.7, p = 0.022) and stage IV (HR: 3.65, 95% CI: 1.21-11.06, p = 0.022). Multivariate analysis revealed that stage IV had higher risk of mortality than stage IIIb (HR: 3.75, 95% CI 0.969-14.535, p = 0.056). The platinum-taxane combination added 3 months in the median survival (13 vs. 10 months, p = 0.4).**Conclusion:** Stage IV and age between 40-60 years had a higher risk of death in NSCLC.

Keywords: Non-Small Cell Lung Cancer;Advanced;Second-Line Chemotherapy.

Dept. of Critical Care

67. Severe Ischemic Cardiomyopathy with Mechanical Complications: Still A Surgical Disease

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International Journal Of Cardiology, 241: 103-108 (2017) IF: 6.189

Background: Surgical treatment of ischemic cardiomyopathy (ICM) with mechanical complications has been limited in favor of suboptimal treatments because of the perception of poor outcome.**Methods and results:** FromMay 2009 till June 2014 115 patientswith severe ICM(ejection fraction, EF, ≤25%) andmechanical complications were operated on. Median EF was 24% (19, 24), mean end-systolic volume index(ESVi) was 86 ± 27 ml/m2 and all patients had an MR grade of 2 or more. The right ventricle (RV) washypokinetic in 33 patients. All of themunderwent mitral valve surgery. Left ventricular (LV) surgical remodelingwas performed in 60 patients (52.2%) and tricuspid surgery in 58 (50.4%). In-hospital mortality was 4.3% (5

patients).Six-year freedomfromdeath any cause and fromdeath any cause and NYHA class III/IVwere, respectively,70.5±4.9% and 66.4±4.8%. Cox regression analysis showed that risk factors were lower EF (cutpoint ≤ 20%)and RV hypokinesia. Eighty-six patients had a followup echocardiogramafter amedian of 31 (19, 51) months. EF increased by 60%, from 24 (19, 24) to 35 (27 ,46) (p=0.00), and ESVi decreased by 32%, from 87± 29 to 59 ±27 ml/m2 (p=0.00). SVi increased by 32%, from 23 ± 7 to 32± 12 ml/m2. MR grade was ≥2 only in 6 patients (7%) and was not severe in any of them.**Conclusions:** Surgery for severe ICMwithMR can be performedwith lowsurgical risk and goodmidterm survival.These findings have to be taken into account while abandoning a clear surgical indication in favor of suboptimalalternative therapies.

Keywords: Ischemic Cardiomyopathy Ischemic Mitral Regurgitation Right Ventricular Dysfunction.

Dept. of Dermatology

68.The Vitiligo Working Group Recommendations for Narrowband Ultraviolet B Light Phototherapy Treatment of Vitiligo

Mohammad TF, Al-Jamal M, Hamzavi IH, Harris JE, Leone G, Cabrera R, Lim HW, Pandya AG and Esmat SM.

Journal Of The American Academy Of Dermatology, 76(5): 879-888 (2017) IF: 7.002

Background: Treatment of vitiligo with narrowband ultraviolet B light (NBUVB) is an important component of the current standard of care. However, there are no consistent guidelines regarding the dosing and administration of NBUVB in vitiligo, reflected by varied treatment practices around the world.**Objective:** To create phototherapy recommendations to facilitate clinical management and identify areas requiring future research. **Methods:**The Vitiligo Working Group (VWG) Phototherapy Committee addressed 19 questions regarding the administration of phototherapy over 3 conference calls. Members of the Photomedicine Society and a group of phototherapy experts were surveyed regarding their phototherapy practices.**Results:**Based on comparison and analysis of survey results, expert opinion, and discussion held during conference calls, expert recommendations for the administration of NBUVB phototherapy in vitiligo were created.**Limitations:** There were several areas that required further research before final ecommendations could be made. In addition, no standardized methodology was used during literature review and to assess the strength of evidence during the development of these recommendations. **Conclusion:**This set of expert recommendations by the VWG is based on the prescribing practices of phototherapy experts from around the world to create a unified, broadly applicable set of recommendations on the use of NBUVB in vitiligo.

Keywords: Uvb;Expert Recommendation;Narrowband Phototherapy;Pigmentation;Vitiligo.

69. Repigmentation in Vitiligo: Position Paper of the Vitiligo Global Issues Consensus Conference.

Gan EY, Eleftheriadou V, Esmat S, Hamzavi I, Passeron T5, Böhm M, Anbar T, Goh BK, Lan CE, Lui H, Ramam M, Raboobee N, Katayama I, Suzuki T, Parsad D, Seth V, Lim HW, van Geel N, Mulekar S, Harris J, Wittal R, Benzekri L, Gauthier Y, Kumarasinghe P, Thng ST, Silva de Castro CC, Abdallah M, Vrijman C, Bekkenk M, Seneschal J, Pandya AG, Ezzedine K, and Picardo Mand Taïeb A

Pigment Cell & Melanoma Research, 30(1): 28-40 (2017) IF: 5.17

The Vitiligo Global Issues Consensus Conference (VGICC), through an international e-Delphi consensus, concluded that 'repigmentation' and 'maintenance of gained repigmentation' are essential core outcome measures in future vitiligo trials. This VGICC position paper addresses these core topics in two sections and includes an atlas depicting vitiligo repigmentation patterns and color match. The first section delineates mechanisms and characteristics of vitiligo repigmentation, and the second section summarizes the outcomes of international meeting discussions and two e-surveys on vitiligo repigmentation, which had been carried out over 3 yr. Treatment is defined as successful if repigmentation exceeds 80% and at least 80% of the gained repigmentation is maintained for over 6 months. No agreement was found on the best outcome measure for assessing target or global repigmentation, therefore highlighting the limitations of e-surveys in addressing clinical measurements. Until there is a clear consensus, existing tools should be selected according to the specific needs of each study. A workshop will be conducted to address the remaining issues so as to achieve a consensus.

Keywords: Outcome Measure;Pigment;Repigmentation;Repigmentation Pattern;Vitiligo.

70. Phototherapy and Combination Therapies for Vitiligo

Samia Esmat, Rehab A. Hegazy, Suzan Shalaby, Stephen Chu-Sung Hu and Cheng-Che E. Lan

Dermatologic Clinics, 35: 171-192 (2017) IF: 2.591

Vitiligo is a disease characterized by disappearance of melanocytes from the skin. It can negatively influence the physical appearance of affected individuals, and may profoundly affect a person's psychosocial function and quality of life. Therefore, vitiligo should not be considered as merely a condition that affects a patient's appearance, but needs to be actively treated in patients who seek medical help. Phototherapy has been used as the main treatment modality for patients with vitiligo. Different forms of phototherapy for vitiligo include broadband UVB, narrowband UVB, excimer light and excimer laser, and psoralen plus UVA.

Keywords: Excimer;Narrowband Ultraviolet B; Phototherapy; Vitiligo.

71.Cathelicidin (Ll-37) Level in the Scalp Hair of Patients with Tinea Capitis

Abdelaal NH, Rashed LA, Ibrahim SY, Abd El Halim MH, Ghoneim N, Saleh NA and Saleh MA

Medical Mycology, 55: 733-736 (2017) IF: 2.377

Antimicrobial peptides (AMPs) are considered an important first line of defense against pathogens. Cathelicidin LL-37 was upregulated in response to fungal infection. In this work we aimed to evaluate cathelicidin LL-37 in the hair of tinea capitis and compare it to normal controls. Hair samples were collected from 30 children and 30 controls aged from 2 to10 years old, and the level of cathelicidin LL-37 in the hair was detected by quantitative real-time PCR. The 30 patients were further subdivided into three subgroups according to their clinical type. Ten patients were scaly type, 10 patients were black dots type, and 10 patients were kerion type. Cathelicidin level in patients ranged from 6.0 to 17.5 with mean ± SD (11.3 ± 2.3) and in control ranged from 1.02 to 6.2, with mean ± SD (2.8 ± 1.5). There was a significant difference between the patients and controls regarding the cathelicidin level; P value was 0. The mean cathelicidin level was lowest in the kerion type10.73 ± 2.6 and highest in the black dot type 12.05 ± 2.76. However, there was no significant difference between the cathelicidin level of the different clinical types of tinea capitis; P value was 0.58. In conclusion, the level of cathelicidin LL-37 in hair specimens of human tinea capitis was significantly higher than controls
Keywords: Antimicrobial Peptides;Cathelicidin;Hair;Tinea Capitis.

72. Rituximab Treatment in Pemphigus Vulgaris: Effect on Circulating Tregs

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Archives Of Dermatological Research, 309: 551-556 (2017) IF: 2.327

Rituximab (RTX) has been used successfully to treat refractory pemphigus. We aimed to assess the response of pemphigus vulgaris (PV) cases to RTX therapy and its effect on CD4+CD25+ (T regulatory) cells level. Sixteen PV patients were included in this study, each received one cycle of two RTX infusions (1000 mg on days 1 and 15). Five PV patients served as controls. All cases were on prednisolone ± adjuvant therapy. Pemphigus disease area index (PDAI), autoimmune bullous skin intensity score (ABSIS), anti-desmoglein antibodies, CD4, CD8, CD20 and CD4+CD25+ levels were assessed at baseline, 3, 6 and 12 months after therapy. Fourteen patients were followed up for a mean duration of 17 while two were lost to follow up 6 months after RTX therapy. A significant decrease in PDAI, ABSIS, Dsg3 ($p < 0.0001$) was found. The depletion of B cells lasted for 12 months in 11 (69%) patients and for 24 months in 3 (21.4%) patients. There was significant decrease in CD20+ and CD4+CD25+ cells after 12 months of RTX, p values were 0.005 and 0.02, respectively. While no similar change in CD8 and CD4 was found ($p = 0.2$ for both), no significant change of CD20 and CD4+CD25+ cells were detected in the control group. In conclusion RTX is safe and effective as an adjuvant therapy in refractory cases of PV. In addition to B cell depletion a significant reduction of T regulatory cells occurs in treated cases which may be due to increased skin homing of these cells
Keywords: Pemphigus;Rituximab;Therapy;Tregs.

73. Low Level Light-Minoxidil 5% Combination Versus Either Therapeutic Modality Alone In Management of Female Patterned Hair Loss: A Randomized Controlled Study.

Samia M. Esmat, Rehab A. Hegazy, Heba I. Gawdat,Rania M. Abdel Hay, Riham S. Allam, Rofaida El Naggar and Hoda Moneib

Lasers In Surgery And Medicine, 49: 835-843 (2017) IF: 2.312

Background: Female pattern hair loss (FPHL) is the most common form of hair loss in women. Nevertheless, its management represents a real challenge. Among the FDA approved therapeutic modalities for FPHL are topical minoxidil and more recently low-level light therapy (LLLT).AIM OF WORK:Assess the efficacy and safety of LLLT in comparison to topical minoxidil 5% and to a combination of both therapies in the treatment of FPHL.**Patients and Methods:**This study included 45 female patients with proven FPHL. They were randomly divided into three equal groups, where group (i) patients were instructed to apply topical minoxidil 5% twice daily, group (ii) patients received LLLT using the helmet iGrow® device for 25 minutes 3 days weekly, and group (iii) patients received a combination of both topical minoxidil 5% twice daily and LLLT for 25 minutes 3 days weekly for 4 months (study duration). Evaluation was done according to clinical, dermoscopic (folliscopic), and ultrasound bio-microscopic (UBM) parameters. Patient satisfaction and side effects were reported.**Results:**The efficacy and safety of both topical minoxidil and LLLT were highlighted with comparable results in all parameters. The combination group (iii) occupied the top position regarding Ludwig classification and patient satisfaction. UBM and dermoscopic findings showed significant increase in the number of regrowing hair follicles at 4 months in all groups, whereas only UBM showed such significant increase at 2 months in the combination group (iii). A non-significant increase in the hair diameter was also documented in the three groups. **Conclusion:** LLLT is an effective and safe tool with comparable results to minoxidil 5% in the treatment of FPHL. Owing to the significantly better results of combination therapy,
Keywords: Ubm;Dermoscope;Female Pattern Hair Loss;Low Light Laser Therapy;Minoxidil.

74. Studying the Association Between Methylenetetrahydrofolate Reductase (Mthfr) 677 Gene Polymorphism, Cardiovascular Risk and Lichen Planus

Laila Rashed, Rania Abdel Hay, Marwa AlKaffas, Shereen Ali, Dina Kadry and Sara Abdallah

Journal Of Oral Pathology And Medicine, 46: 1023-1029 (2017) IF: 2.043

Background: There is a reported relation between hyperhomocysteinemia andlichen planus (LP). An increase in homocysteine (Hcy) and the risk of cardiovasculardisease (CVD)

in patients with methylenetetrahydrofolate reductase (MTHFR) mutation has been described.**Objective:** To detect MTHFR (C677T) gene polymorphism, and to find its associationwith CVD risk, Hcy and folic acid levels in patients with LP.Methods: This hospital-based case-control study included 110 patients with LP: 70 with cutaneous LP (CLP) and 40 with oral LP (OLP). A total of 120 age- and sexmatched healthy subjects were used as controls. Three millilitre venous blood sample was taken for detection of MTHFR gene polymorphism by PCR-RFLP technique and for measurement of the lipid profile. Hcy and folic acid were measured by ELISA. Hypertension was evaluated.**Results:** There were significantly higher prevalence of hypertension with higherHcy, triglycerides and cholesterol levels and lower folic acid and HDL levels among patients' groups. Hypertension with higher Hcy and cholesterol levels together with lower folic acid and HDL levels have been found in OLP when compared to CLP.Patients showed a significant higher percentage of the MTHFR 677 TT genotype (P=.003) and of the MTHFR 677 T allele (P=.042) compared to controls. Moreover, there was a higher prevalence of MTHFR 677 T allele in patients with CLP.**Conclusion:** MTHFR 677 gene polymorphism may be a risk factor for the development of the LP, and to predispose these patients to higher risk of CVD

Keywords: Folic Acid;Gene Polymorphism;Homocysteine;Lichen Planus; Methylenetetrahydrofolate Reductase

75. Can Teledermatology Be A Useful Diagnostic Tool in Dermatology Practice in Remote Areas? An Egyptian Experience with 600 Patients

Nadia Saleh, Rania Abdel Hay, Rehab Hegazy, Marwa Hussein and Dalia Gomaa

Journal Of Telemedicine And Telecare, 23: 233-238 (2017) IF: 2.008

introduction: The paucity of studies evaluating teledermatology (TD) in developing countries was the impetus behind conducting this work. We aimed to evaluate the feasibility and reliability of TD in remote areas where medical facilities and consultant dermatologists are not available, through measurement of diagnostic concordance rates between face-to-face diagnosis and store-and-forward (SAF) TD diagnosis.**Methods:**A total of 600 patients with dermatological ailments who attended Abshway Hospital were recruited into the study, examined by an on-site dermatology resident, and offered a diagnosis. The clinical images and patients' history were collected and transferred (through the Dropbox application) to two remote consultant dermatologists. The reliability of the three physicians' agreement rates was assessed.**Results:**Diagnostic agreement rates between the face-to-face dermatologist and the two teledermatologists were 86.7% and 87% respectively. Of the cases, 97% had complete or partial agreement and 81.3% of cases showed complete agreement between the three physicians. The reliability of the three physicians' agreement rates was assessed statistically using Cohen's kappa coefficient (κ) and this showed a range of 0.46–0.52. **Conclusion:** This study might aid in enhancing the utilization of this tool in our country, especially in remote areas with a lack of a proper dermatological service. The simplicity and low cost of the adopted technique might facilitate its use over large sectors. It opens the door for gaining the benefit of this technology in other aspects such as teaching and monitoring health care providers.

Keywords: Reliability;Store-And-Forward; Teledermatology; Telemedicine.

76. Autologous Platelet-Rich Plasma Versus Readymade Growth Factors in Skin Rejuvenation: A Split Face Study.

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Journal Of Cosmetic Dermatology, 16: 258-264 (2017) IF: 1.764

Background: The escalating urge for a youthful-looking skin instigates continuous innovations with minimally invasive procedures. Readymade growth factors and autologous platelet-rich plasma (PRP) represent such therapeutic interventions.**Objective:**Compare the efficacy and safety of PRP to readymade growth factors in skin rejuvenation.**Patients and Methods:**Twenty adult females with Fitzpatrick skin types III-IV and Glogau photoaging types II and III were enrolled in this study. They underwent a split face therapy where each side was randomly assigned to treatment by either readymade growth factors (area A) or autologous PRP (area B). All patients received six sessions at 2-weeks interval. Evaluation was carried out using Global Aesthetic Improvement Scale (GAIS) and optical coherence tomography (OCT). Patients were followed up for 6 months.**Results:**Both procedures yielded significant improvement regarding both GAIS (skin turgor and overall vitality) and OCT (epidermal and dermal thickness) assessment. Significant negative correlation was detected between patients' age, sun exposure, and GAIS. Burning sensation was significantly higher in area A. Patient satisfaction was significantly higher in area B. Improvement was more sustained in area B on follow-up.**Conclusion:**Platelet-rich plasma is effective and safe for skin rejuvenation, comparable to readymade growth factors with noticeable higher longevity.

Keywords: Oct;Prp;Efficacy;Readymade Growth Factors;Skin Rejuvenation.

77. Fungoides and Psoriasis: A Case–Control Study

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Clinical And Experimental Dermatology, 42: 172-177 (2017) IF: 1.589

Background: Toll-like receptors (TLRs) have been implicated in various dermatological diseases. TLR agonists have the capacity to potently activate the innate immune cells of patients with advanced, refractory, cutaneous T-cell lymphoma (CTCL).Aim:To detect TLR7 gene expression in mycosis fungoides (MF) (a neoplastic skin condition) and to compare it with psoriasis (an inflammatory skin condition) in an attempt to clarify the pathogenic role played by TLR7 in both conditions.**Methods:**This case–control study enrolled 28 patients with MF: 30 patients with psoriasis, and 30 age- and sex-matched healthy controls (HCs). A 4-mm punch skin biopsy was obtained from lesional skin of patients and from normal skin of HCs for detection of TLR7 gene expression using real-time

PCR.**Results:**Mean TLR7 level in patients with MF (0.4 ± 0.23) was significantly lower than in patients with psoriasis (1.49 ± 0.46) and in HCs (1.22 ± 0.44) (P < 0.001), and mean TLR7 level in patients with psoriasis was significantly higher than in HCs (P < 0.03). Based on MF staging, 21.4% of patients had stage Ia, 28.6% had stage Ib, 28.6% had stage IIa and 21.4% had stage IIb disease. Comparing the TLR7 levels in relation to MF staging revealed the lowest mean value was in stage IIb and highest mean value in stage Ia, and this was significant (P < 0.001).**Conclusion:** Disturbed innate immunity might play a role in the pathogenesis of neoplastic and inflammatory skin conditions. TLR7 could be useful as a prognostic factor in MF.
Keywords: Cutaneous T-Cell Lymphoma;Mycosis Fungoides; Toll-Like Receptors.

78. Assessment of Gene Expression Levels of Proopiomelanocortin (Pomc) and Melanocortin-1 Receptor (Mc1r) in Vitiligo

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Australasian Journal Of Dermatology, 58 (2017) IF: 1.304

Proopiomelanocortin (POMC) and melanocortin 1 receptor (MC1R) are regulators of melanogenesis and pigmentation. Our objective was to estimate their levels, searching for a possible role of the melanocortin system in vitiligo. This study included 40 vitiligo patients and 40 controls. Skin biopsies were taken from lesional and non-lesional skin of patients and from the non-sun exposed skin of controls to detect the expression of POMC and MC1R using quantitative real-time polymerase chain reaction. Both factors were significantly lower in lesional than non-lesional skin and controls, while they were significantly higher in non-lesional skin than in controls. There was a statistically significant positive correlation between lesional levels of POMC and MC1R, as well as between non-lesional levels of POMC and MC1R in the patients. On the other hand, we found a statistically significant negative correlation between the lesional and non-lesional levels of POMC, as well as between the lesional and non-lesional levels of MC1R in the patients. As a conclusion, the melanocortin system could play a role in the pathogenesis of vitiligo or could be affected as the end result of the disease.
Keywords: Melanocortin 1 Receptor; Proopiomelanocortin; Vitiligo.

79. Autoantibodies Other Than Anti-Desmogleins in Pemphigus Vulgaris Patients.

Saleh MA, Salem H and El Azizy H

Indian Journal Of Dermatology, 62: 47-51 (2017) IF: 1.069

Background: Pemphigus vulgaris (PV) is an immunoglobulin G-mediated autoimmune bullous skin disease. Nonorgan-specific antibodies were detected in Tunisian and Brazilian pemphigus patients with different prevalence.**Materials and Methods:**Fifty PV patients and fifty controls were screened for antinuclear antibodies (ANAs), anti-smooth muscle antibodies (ASMAs), anti-parietal antibodies (APAs), anti-mitochondrial antibodies, and Anti-nuclear cytoplasmic antibodies (ANCA) by indirect immunofluorescence.**Results:**Thirty-nine patients were female and 11 were male. Fifteen patients did not receive treatment before while 35 patients were on systemic steroid treatment ± azathioprine. Twenty (40%) of the PV patients and 1 (2%) control had positive ANA. ANA was significantly higher in PV patients than controls, P < 0.0001. ASMAs were detected in 20 (40%) PV patients and none of the controls. ASMA was significantly higher in PV patients than controls, P < 0.0001. No significant difference was detected between treated and untreated regarding ANA, P - 0.11. However, there was a significant difference between treated and untreated regarding ASMA, P - 0.03. Six patients (12%) and none of the controls had positive APA. There was a significant difference between the patients and the controls in APA. P - 0.027.**Conclusion:**Egyptian PV patients showed more prevalent ANA, ASMA, and APA than normal controls. Follow-up of those patients is essential to detect the early development of concomitant autoimmune disease. Environmental factors might account for the variability of the nonorgan-specific antibodies among different populations.
Keywords: Anti-Mitochondrial Antibodies;Anti-Parietal Antibodies;Anti-Smooth Muscle Antibodies;Antinuclear Antibodies;Antinuclear Cytoplasmic Antibodies; Autoantibodies; Autoimmune Bullous Diseases;Pemphigus Vulgaris.

80. Efficacy of Fractional Carbon Dioxide Laser in the Treatment of Mature Burn Scars: A Clinical, Histopathological and Histochemical Study

Khaled El-Hoshy, Mona R. E. Abdel-Halim, Dina Dorgham, Safinaz Salah El-Din Sayed and Mona El-Kalioby

Journal Of Clinical And Aesthetic Dermatology, 10 (12): 36-43 (2017)

Objective. The purpose of this study was to evaluate the efficacy of fractional carbon dioxide laser use in the treatment of mature burn scars.**Design.** This was an uncontrolled, open-label clinical trial.Setting. The setting for this study was Dermatology Department at Cairo University in Cairo, Egypt.Participants. Twenty patients with mature burn scars were included in the study.Measurements. Three fractional carbon dioxide laser sessions were given, 4 to 8 weeks apart. Primary outcome was measured using two scar scales, the Vancouver Scar Scale and the Patient and Observer Scar Assessment Scale. Secondary outcomes included evaluation of collagen and elastic fibers using routine hematoxylin and eosin, Masson's trichrome, and orcein stains. Outcomes were measured two months after the last laser session.**Results.** Both Vancouver Scar Scale and Patient and Observer Scar Assessment Scale showed significant reduction following treatment (p<0.001). Scar relief and pliability improved most followed by vascularity. Pigmentation improved the least. Percent improvement in Patient and Observer Scar Assessment Scale patients' overall assessment was 44.44 percent. The pattern and arrangement of collagen and elastic fibers showed significant improvement (p<0.001, p=0.001, respectively), together with significant improvement in their amounts (p=0.020, p<0.001, respectively). No significant correlation existed between clinical and histopathological/histochemical scores. Side effects and complications were mild and tolerable.**Conclusion.** Fractional carbon dioxide laser use is an effective and safe method for treating burn scars with a significant change in the opinion of the patients about their scar appearance.
Keywords: Fractional Carbon Dioxide (Co) Laser;Burn Scars;Collagen;Elastic Fibers;Masson'S Trichrome;Orcein.

81. Higher Expression of Toll-Like Receptors 3, 7, 8, And 9 in Pityriasis Rosea

Mostafa Abou El-Ela, Mohamed El-Komy, Rania Abdel Hay, Rehab Hegazy, Amin Sharobim, Laila Rashed and Khald Amr

Journal Of Pathology And Translational Medicine, 51: 148-151 (2017)

Background: Pityriasis rosea (PR) is a common papulosquamous skin disease in which an infective agent may be implicated. Toll-like receptors (TLRs) play an important role in immune responses and in the pathophysiology of inflammatory skin diseases. Our aim was to determine the possible roles of TLRs 3, 7, 8, and 9 in the pathogenesis of PR. **Methods:** Twenty-four PR patients and 24 healthy individuals (as controls) were included in this case control study. All recruits were subjected to routine laboratory investigations. Biopsies were obtained from one active PR lesion and from healthy skin of controls for the detection of TLR 3, 7, 8, and 9 gene expression using real-time polymerase chain reaction.**Results:**This study included 24 patients (8 females and 16 males) with active PR lesions, with a mean age of 28.62 years. Twenty four healthy age- and sex-matched individuals were included as controls (8 females and 16 males, with a mean age of 30.83 years). The results of the routine laboratory tests revealed no significant differences between both groups. Significantly elevated expression of all studied TLRs were detected in PR patients relative to healthy controls ($p < .001$).**Conclusions:**TLRs 3, 7, 8, and 9 might be involved in the pathogenesis of PR.
Keywords: Immunity;Innate;Toll-Like Receptors;Reverse Transcriptase Polymerase Chain Reaction;Pityriasis Rosea.

Dept. of Diagnostic Radiology

82. Mammographic Density and Ageing: A Collaborative Pooled Analysis of Cross-Sectional Data from 22 Countries Worldwide

Tamimi, Kimberly Bertrand, Ava Kwong, Giske Ursin, Eunjung Lee, Samera A. Qureshi, Huiyan Ma, Sarah Vinnicombe, Sue Moss, Steve Allen, Rose Ndumia, Sudhir Vinayak, Soo-Hwang Teo, Shivaani Mariapun, Farhana Fadzli, Beata Peplonska, Agnieszka Bukowska, Chisato Nagata, Jennifer Stone, John Hopper, Graham Giles, Vahit Ozmen, Mustafa Erkin Aribal, Joachim Schüz, Carla H. Van Gils, Johanna O. P. Wanders, Reza Sirous, Mehri Sirous, John Hipwell, Jisun Kim, Jong Won Lee, Caroline Dickens, Mikael Hartman, Kee-Seng Chia, Christopher Scott, Anna M. Chiarelli, Linda Linton, Marina Pollan, Anath Arzee Flugelman, Dorria Salem, Rasha Kamal, Norman Boyd, Isabel dos-Santos-Silva and Valerie McCormack

Plos Medicine, 14(6): 1-20 (2017) IF: 11.862

Background: Mammographic density (MD) is one of the strongest breast cancer risk factors. Its age-related characteristics have been studied in women in western countries, but whether these associations apply to women worldwide is not known.**Methods and Findings:**We examined cross-sectional differences in MD by age and menopausal status in over 11,000 breast-cancer-free women aged 35-85 years, from 40 ethnicity- and location-specific population groups across 22 countries in the International Consortium on Mammographic Density (ICMD). MD was read centrally using a quantitative method (Cumulus) and its square-root metrics were analysed using meta-analysis of group-level estimates and linear regression models of pooled data, adjusted for body mass index, reproductive factors, mammogram view, image type, and reader. In all, 4,534 women were premenopausal, and 6,481 postmenopausal, at the time of mammography. A large age-adjusted difference in percent MD (PD) between post- and premenopausal women was apparent (-0.46 cm [95% CI: -0.53, -0.39]) and appeared greater in women with lower breast cancer risk profiles; variation across population groups due to heterogeneity (I2) was 16.5%. Among premenopausal women, the √PD difference per 10-year increase in age was -0.24 cm (95% CI: -0.34, -0.14; I2 = 30%), reflecting a compositional change (lower dense area and higher non-dense area, with no difference in breast area). In postmenopausal women, the corresponding difference in √PD (-0.38 cm [95% CI: -0.44, -0.33]; I2 = 30%) was additionally driven by increasing breast area. The study is limited by different mammography systems and its cross-sectional rather than longitudinal nature.**Conclusions:**Declines in MD with increasing age are present premenopausally, continue postmenopausally, and are most pronounced over the menopausal transition. These effects were highly consistent across diverse groups of women worldwide, suggesting that they result from an intrinsic biological, likely hormonal, mechanism common to women. If cumulative breast density is a key determinant of breast cancer risk, younger ages may be the more critical periods for lifestyle modifications aimed at breast density and breast cancer risk reduction.
Keywords: Mammographic Breast Density;Breast Cancer Risk Factors.

83. Magnetic Resonance Imaging of Pelvic Floor Dysfunction - Joint Recommendations of the Esur and Esgar Pelvic Floor Working Group

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European Radiology, 27: 2067-2085 (2017) IF: 3.967

Objective: To develop recommendations that can be used as guidance for standardized approach regarding indications, patient preparation, sequences acquisition, interpretation and reporting of magnetic resonance imaging (MRI) for diagnosis and grading of pelvic floor dysfunction (PFD).**Methods:**The technique included critical literature between 1993 and 2013 and expert consensus about MRI protocols by the pelvic floor-imaging working group of the European Society of Urogenital Radiology (ESUR) and the European Society of Gastrointestinal and Abdominal Radiology (ESGAR) from one Egyptian and seven European institutions. Data collection and analysis were achieved in 5 consecutive steps. Eighty-two items were scored to be eligible for further analysis and scaling. Agreement of at least 80 % was defined as consensus finding.**Results:**Consensus was reached for 88 % of 82 items. Recommended reporting template should include two main sections for measurements and grading. The pubococcygeal line (PCL) is recommended as the reference line to measure pelvic organ prolapse. The recommended grading scheme is the "Rule of three" for Pelvic Organ Prolapse (POP), while a rectocele and ARJ descent each has its specific grading system.**Conclusion:** This literature review and expert consensus recommendations can be used as guidance for MR imaging and reporting of PFD.
Keywords: Mri Pelvic Floor;Mr Defecography;Recommendations;Esur;Esgar.

84. Diagnostic Value of 18F-Fdg-Pet/Ct for the Follow-Up and Restaging of Soft Tissue Sarcomas in Adults

Tamer Wahid Kassem, Omar Abdealziz and Sally Emad-Eldin

Diagnostic and Intervention Imaging, 98: 693-698 (2017) IF: 2.277

The purpose of this study was to evaluate the clinical utility of 2-[18F] fluoro-2-deoxy-D-glucose (18FDG) positron emission tomography (PET)/computed tomography (CT) (18F-FDG-PET/CT) in the follow-up of adult patients with soft tissue sarcomas.**Materials and Methods:**We prospectively evaluated 37 consecutive patients with known soft tissue sarcoma with 18F-FDG-PET/CT examination for suspected recurrence of disease. They were 21 men and 16 women with a mean age of 49.6±10.6 (SD) years (range, 34-75years). The sensitivity, specificity, positive predictive value (PPV), negative predictive value (NPV) and accuracy of 18F-FDG-PET/CT examination were calculated on a per patient basis.**Results:**18F-FDG-PET/CT showed an overall diagnostic accuracy of 91.8%, sensitivity of 90% and a specificity of 100%. The positive predictive value and negative predictive value were 100 and 70%, respectively. The 18F-FDG-PET/CT interpretations were correct in 34/37 patients (91.8%). Incorrect interpretations occurred in three patients (8.1%). Reasons for false negative findings were low 18F-FDG uptake of local recurrence in one patient and low 18F-FDG uptake of subcentimetric inguinal lymph node metastases.**Conclusion:**18F-FDG-PET/CT has a high diagnostic value in the follow-up of patients with soft tissue sarcoma

Keywords: Pet/Ct;Soft Tissue;Sarcoma;Restaging.

85. Approach to Interpret Images Produced by New Generations of Multidetector Ct Scanners in Post-Operative Spine

Rania Zeitoun and Manar Hussein

British Journal Of Radiology, 90: 0-0 (2017) IF: 2.05

Objective: To reach a practical approach to interpret MDCT findings in post-operative spine cases and to change the false belief of CT failure in the setting of instruments secondary to related artefacts.**Methods:**We performed observational retrospective analysis of premier, early and late MDCT scans in 68 post-operative spine patients, with emphasis on instruments related complications and osseous fusion status. We used a grading system for assessment of osseous fusion in 35 patients and we further analysed the findings in failure of fusion, grade (D).**Results:**We observed a variety of instruments related complications (mostly screws medially penetrating the pedicle) and osseous fusion status in late scans. We graded 11 interbody and 14 posterolateral levels as osseous fusion failure, showing additional instruments related complications, end plates erosive changes, adjacent segments spondylosis and malalignment.**Conclusion:**Modern MDCT scanners provide high quality images and are strongly recommended in assessment of the instruments and status of osseous fusion. In post-operative imaging of the spine, it is essential to be aware for what you are looking for, in relevance to the date of surgery.Advances in knowledge:Modern MDCT scanners allow assessment of instruments position and integrity and osseous fusion status in post-operative spine. We propose a helpful algorithm to simplify interpreting post-operative spine imaging.

86. Staging of Breast Cancer and the Advanced Applications of Digital Mammogram: What the Physician Needs To Know?

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British Journal Of Radiology, 90 (2017) IF: 2.05

Objective: To study the role of advanced applications of digital mammogram, whether contrast-enhanced spectral mammography (CESM) or digital breast tomosynthesis (DBT), in theT staging of histologically proven breast cancer before planning for treatment management. Methods: In this prospective analysis, we evaluated 98 proved malignant breast masses regarding their size, multiplicity and the presence of associated clusters of microcalcifications. Evaluation methods included digital mammography (DM), 3D tomosynthesis and CESM. Traditional DM was first performed then in a period of 10–14-day interval; breast tomosynthesis and contrast based mammography were performed for the involved breast only. Views at tomosynthesis were acquired in a step-and-shoot" tube motion mode to produce multiple (11–15), low-dose images and in contrast enhanced study, low-energy (22–33 kVp) and high energy (44–49 kVp) exposures were taken after the i.v. injection of the contrast agent. Operative data were the gold standard reference. Results: Breast tomosynthesis showed the highest accuracy in size assessment (n569, 70.4%) than contrast enhanced (n549, 50%) and regular mammography(n=59, 60.2%). Contrast-enhanced mammography presented the least performance in assessing calcifications, yet it was most sensitive in the detection of multiplicity (92.3%), followed by tomosynthesis (77%) and regular mammography (53.8%). The combined analysis of the three modalities provided an accuracy of 74% in the T staging of breast cancer. Conclusion: The combined application of tomosynthesis and contrast-enhanced digital mammogram enhanced the performance of the traditional DM and presented an informative method in the staging of breast cancer. Advances in knowledge: Staging and management planning of breast cancer can divert according to tumour size, multiplicity and the presence of microcalcifications. DBT shows sharp outlines of the tumour with no overlap tissue and spots microcalcifications. Contrast-enhanced spectral mammogram shows the extent of abnormal contrast uptake and detects multiplicity. Integrated analysis provides optimal findings for proper T staging of breast cancer.

Keywords: Staging Of Breast Cancer And The Advanced Applications of Digital Mammogram: What The Physician Needs to Know.

87. Surface Transperineal Ultrasound and Vaginal Abnormalities: Applications and Strengths

Soha Talaat Hamed and Sahar Mahmoud Mansour

British Journal of Radiology, 90 (2017) IF: 2.05

The role of ultrasound in the assessment of the female pelvis whether using transabdominal/transluminal approach is well established. Little was reported about the use of the superficial transperineal approach that could provide a full assessment of the

lower cervix and vagina, which may be overlooked in the standard examinations. The proximity of the probe to the vagina helps not only the detection of organ abnormalities but also proper characterization and differentiation of vaginal masses. . We discuss the diagnostic role of this superficial ultrasound approach in improving the perception and interpretation of the anatomy and different diseases of the vagina.
Keywords: Surface Transperineal Ultrasound And Vaginal Abnormalities: Applications And Strengths.

88.Practical Approach to Adrenal Imaging

Khaled M. Elsayes, Sally Emad-Eldin, Ajaykumar C. Morani and Corey T. Jensen

Radiologic Clinics Of North America, 55: 279-301 (2017) IF: 1.89

Various pathologies can affect the adrenal gland. Noninvasive cross-sectional imaging is used for evaluating adrenal masses. Accurate diagnosis of adrenal lesions is critical, especially in cancer patients; the presence of adrenal metastasis changes prognosis and treatment. Characterization of adrenal lesions predominantly relies on morphologic and physiologic features to enable correct diagnosis and management. Key diagnostic features to differentiate benign and malignant adrenal lesions include presence/absence of intracytoplasmic lipid, fat cells, hemorrhage, calcification, or necrosis and locoregional and distant disease; enhancement pattern and washout values; and lesion size and stability. This article reviews a spectrum of adrenal pathologies
Keywords: Adrenal;Adenoma;Pheochromocytoma;Ct;Mri.

89. Computed Tomography Study of the Feet of Mummy of Ramesses Iii: New Insights on the Harem Conspiracy

Sahar N Saleem and Zahi Hawass

Journal Of Computer Assisted Tomography, 41(1): 15-17 (2017) IF: 1.394

Objective A previous study of the computed tomography (CT) of the neck of mummified Ramesses III (1190-1070 BC) suggested that an assailant slit the Pharaoh's throat with a knife in the plot known as Harem conspiracy. We hypothesized the presence of other injuries in the Pharaoh's body as a result of this fatal attack.Methods We analyzed CT images of mummified Ramesses III and reported any finding suggestive of trauma in correlation with archeologic literature.Results Computed tomographic images show partially amputated left big toe. The bony edges are sharp without signs of attempted healing. The ancient embalmers replaced the missing toe with a linen-made prosthesis and placed 6 metallic amulets (eye of Horus) at the feet region.Conclusions The Pharaoh's left big toe was likely chopped perimortem by an assailant using a heavy sharp instrument as an ax. This additional injury supports the plot and gives more information about the death scene.
Keywords: Mummy;Ct;Egypt.

90.Role of Doppler Ultrasonography in Defining Normal and Abnormal Graft Hemodynamics After Living-Donor Liver Transplant

Omar Abdelaziz, Sally Emad-Eldin,1 Ahmed Hussein and Ayman M. A. Osman

Experimental and Clinical Transplantation, 15(3): 306-313 (2017) IF: 0.535

Objectives: Our aim was to investigate the early changes that occur after graft perfusion in living- donor liver transplant by Doppler ultrasonography. **Materials and Methods:** We prospectively evaluated liver grafts of 30 patients who underwent living-donor liver transplant during an 18-month period and who were followed for 1 year postoperatively. The hepatic artery peak systolic velocity, resistivity index, portal vein velocity, portal vein anastomotic velocity ratio, and hepatic vein pattern were compared after excluding patients who developed vascular complications and acute rejection episodes. **Results:** We observed intraoperative increases in the mean hepatic artery peak systolic velocity (96.3 ± 65 cm/s), the resistivity index (0.78 ± 0.091), and the portal vein velocity (99.6 ± 48 cm/s), which started to normalize after 2 weeks. In comparing the mean portal vein velocity, portal vein anastomotic velocity ratio, hepatic artery peak systolic velocity, and resistivity index after excluding 5 patients who developed vascular complications, we observed overall significance levels of P < .001, P = .039, P < .001, and P = .040. After we excluded 9 patients who developed acute rejection, our comparison of the portal vein velocity, hepatic artery peak systolic velocity, and resistivity index showed overall significance (P < .001, P < .001, and P = .043). **Conclusions:** Early and transient increases in portal vein velocity, anastomotic velocity ratio, hepatic artery peak systolic velocity, and resistivity index are common after living-donor liver transplant, with significant declines in the first 2 weeks posttransplant
Keywords: Duplex;Hepatic;Perfusion;Perioperative;Recipients.

91. Multi-Detector Ct (Mdct) Evaluation in Interstitial Lung Disease (Ild): Comparison of Minip and Volumetric High Resolution Ct (Hrct) Images

Youssriah Y. Sabri , Iman M. Hamdy Ibrahim , Shady Mohamed Tarek Gamal and Hebatallah H. Assal

Egyptian Journal Of Radiology and Nuclear Medicine, 48: 87-95 (2017)

The aim of the study Is to compare the role of minimum intensity projection (MinIP) images with that of volumetric high resolution computed tomography (HRCT) images in the diagnosis of interstitial lung diseases (ILD). Patients and methods 180 patients (149 females and 31 males) were included in this prospective study that took place over a duration of two and half years. All patients underwent HRCT and MinIP images. The positive findings were compared recording which technique was better and if MinIP adds a value in reaching an accurate diagnosis.ResultsMinIP images showed better visualization of traction bronchiectasis, ground glass opacities and mosaic attenuation pattern, as well as, the cystic lung changes seen in LAM. While MinIP did not add a significant value in thick-walled cystic changes e.g.: honeycombing. Conclusion MinIP is one of the multiplanar techniques of HRCT that proved throughout our study to be an informative complementary tool

increasing the observer confidence and agreement regarding some findings as compared with HRCT alone.
Keywords: Minip;Hrct;Ild.

92.Mr Diffusion Imaging in Mediastinal Masses: the Differentiation Between Benign and Malignant Lesions.

Youssriah Yahia Sabri, Marian Fayek Farid Kolta and Mostafa Ahmed Khairy

Egyptian Journal Of Radiology and Nuclear Medicine, 48(2017): 569-580 (2017)

Background: Diffusion-weighted imaging is a fundamental tool integrated in MR protocols useful in differentiating benign from malignant mediastinal masses, assessing mediastinal lymphadenopathy and investigating central bronchogenic carcinoma. This method is an excellent alternative to CT or PET/CT in the investigation of mediastinal masses. Current applications of diffusion MRI in malignancies include monitoring the treatment response and detecting recurrent cancer. Aim of the work: This study aims to assess the value of using MRI diffusion in differentiating benign and malignant mediastinal masses, differentiating central masses from post obstructive collapse and differentiatinglymphoma versus sarcoidosis Patients and methods: This study included 30 patients; 16 males and 14 females in the period from June 2013 to July 2014. The mean age was 49.3 ± 16.85 (range: 22–82 years). Cases were referred for MRI assessment and were approved by the ethical committee in our department. The complaints varied between dyspnea, chest pain, cough, hemoptysis, fatigue and loss of weight. A superconducting 1.5 T MRI machine with a four-channel body phased-array coil was used for the examination. Biopsy and histopathological assessment was done after that. **Results:** MRI examination with diffusion imaging was able to differentiate between benign and malignant mediastinal and hilar lesion confirmed by the biopsy and histopathology.**Conclusion:** MRI with diffusion weighted images can detect and stage lung cancer, differentiate benign from malignant mediastinal masses and differentiate lymphoma from sarcoidosis in mediastinal/hilar lymphadenopathy.
Keywords: Mr Diffusion;Mediastinal Masses;Benign and Malignant Lesions.

93. Evaluation of the Role of Msct Airway Mapping in Guiding Trans-Bronchial Lung Biopsy in Cases of Inaccessible Lung Lesions

Youssriah Yahia Sabri , Khaled Mahmoud Kamel , Mona Ahmed Fouad Hafez and Sara Mohamed Saleh Saleh Nasef

Egyptian Journal Of Radiology and Nuclear Medicine, 48: 947-952 (2017)

Objective: This work aimed for using multislice computed tomography (MSCT) to map the bronchial tree and assess the exact site, direction, airway findings and bronchial measurements to guide trans-bronchial lung biopsy from an inaccessible lung lesion.**Patients and methods:** This study was carried on 26 patients. It was conducted in the Radiology Department, in collaboration with Chest Department, in the period from January 2015 to April 2016. All patients were subjected to Virtual Bronchographic (VB) examination and Trans-Bronchial lung biopsy(in selected cases guided by the VB results).Results: In this study, MSCT-VB maps guided the fiber-optic bronchoscopy in 30 bronchial lesions in 26 patients to the proper sampling site for different lung lesions with success rate 100% and CT maps were done, reaching 3rd to 7th order bronchial generation with mean distance from central bronchi was 21.3 mm and mean target bronchial diameter was 1.9 mm. Right sided lesions encountered in 57.7% and left sided lesions in 42.3% with the most common segmental affection was the right upper lobe in 36.7% of bronchial lesions and the apico-posterior subsegment of left upper lobe in 23.3% of lesions, then planning according to the site of the lesion in relation to the bronchial tree in the VB was done. Histopathological assessment was done with 61.5% neoplastic lesions and 38.5% inflammatory lesions.**Conclusion:** Multiplanar reconstruction images together with virtual bronchographic images were accurate in the detection of lesion's site, depiction of degree of narrowing, and distal visualization of airways.This CT map should be used to guide bronchoscopy or to direct trans-bronchial needle biopsy to guarantee positive histopathological results.
Keywords: Virtual Bronchography;Fiber-Optic Bronchoscopy;Peripheral Lung Lesions.

94. Ultrasound: Can it Replace Ct in The Evaluation of Pneumonia in Pediatric Age Group?

Samira Saray and Rehab El Bakry

Egyptian Journal Of Radiology and Nuclear Medicine, 48,(3), September 2017: 687-694 (2017)

Aim of the study: To evaluate the ultrasound efficiency in the assessment of pneumonia in pediatric age group compared to CT as a trial for radiation exposure reduction.**Materials and methods:**56 patients of pediatric age group were included (4 months to 10 years). They presented to ER with respiratory distress, and pneumonia was suspected clinically. Human ethics committee approval for this study was obtained from the institutional review board of the private center where these cases were done. Both ultrasound and CT were done for all patients by 2 different radiologists being blind to the results of the other examination to minimize the bias. Follow up US was done after adequate medical treatment (7–14 days) to detect its ability for following the patients up.**Results:**Ultrasound was able to detect efficiently different pulmonary pathological conditions as consolidation and pleural effusion. Compared to CT, ultrasound showed a sensitivity and specificity of 72.2% and 95% for pneumonia detection respectively with 96.3% PPV, 5% NPV, 3.7% FDR and 80.3% accuracy.**Conclusion:**Ultrasound could be considered as a good diagnostic and follow up tool when pneumonia especially in pediatric age group is suspected yet well trained radiologists and high resolution equipments are required.
Keywords: Ultrasound;Ct;Pneumonia;Pediatric.

95.Right Hepatic Artery Pseudoaneurysm as Complication of Laparoscopic Cholecystectomy

Tamer W. Kassem

Egyptian Journal Of Radiology And Nuclear Medicine, 48: 931-933 (2017)

Laparoscopic cholecystectomy complications include rare and fatal complication named hepatic artery pseudoaneurysm (HAPA). It is always iatrogenic. Mortality rates of about 50% of patients have beenreported if rupture occurs. This report presents a case of a 42-year-old woman with history of laparoscopic cholecystectomy 6 months before. She has had few attacks of hematemesis; the last was one week prior to imaging. Multislice CT angiography (MSCTA) for the celiac trunk and CT portography (MSCTP) for portal venous system was requested aiming to locate the site of the bleeding.
Keywords: Right Hepatic Artery;Pseudoaneurysm;Cholecystectomy.

96. Indeterminate Breast Lesions: Can Contrast Enhanced Digital Mammography Change Our Decisions?

Samira Saraya, Lamia Adel and Asmaa Mahmoud

Egyptian Journal Of Radiology and Nuclear Medicine, 48,(2) June 2017: 547-552 (2017)

Objective: To assess the efficiency of dual energy contrast enhanced mammography in the assessment of the indeterminate breast lesions (BIRADS 3 and BIRADS 4).Materials and methods:34 female having 39 indeterminate breast lesions (BIRADS 3 and BIRADS 4) by digital mammography were further examined by dual energy contrast enhanced mammography. Two images were acquired at low and high energy in MLO view after 2 min and in CC view at 4 min post iodinated contrast injection (1.5 ml/kg with flow of 4 ml/s). Images were processed to obtain subtracted images to enhance the areas of the contrast uptake.ResultsResults: from pathology were detected for all cases. Contrast enhanced digital mammography showed specificity, sensitivity, PPV, NPV, FDR, FPR and accuracy of 93.75%, 91.3%, 88.2%, 95.4%, 11.7%, 8.6% and 92.3% respectively compared to full field digital mammography which were 68.75%, 69.5%, 61.1%, 76.1%, 38.8%, 30% and 69.2% respectively. Conclusion:Contrast-enhanced digital mammography is a useful tool to be used for breast cancer detection especially in indeterminate lesions (BIRADS 3 and 4).
Keywords: Breast Cancerfull Field Digital Mammographycontrast Enhanced Digital Mammography Birads 3 and 4

97. Follow Up Ct Angiography Post Evar: Endoleaks Detection, Classification And Management Planning

Tamer W. Kassem

Egyptian Journal Of Radiology and Nuclear Medicine, 48: 621-626 (2017)

Objective: The goal of this study was to highlight the role of follow up CT angiography examination in detection and classification of endoleaks and therefore deciding management plans after endovascular abdominal aortic aneurysm repair (EVAR).**Patients and Methods:**During one year duration 37 patients who have been operated were examined 1 and 6 months after EVAR as routine follow up. The images obtained were interpreted and reconstructed using dedicated software and work stations.**Results:**Out of 37 cases, 14 cases (37.8%) had positive endoleaks and 23 cases (62.2%) were free. Type I endoleak was diagnosed in 4 cases (10.8%) and type II endoleaks was diagnosed in 10 cases (27%) as 7 cases (18.9%) showed leak through lumbar arteries and 3 cases (8.1%) showed leak through the inferior mesenteric arteries.Conclusion:CT angiography can accurately detect and classify endoleaks and thus determine line of treatment. Endoleaks are often asymptomatic and may become evident intra operatively or many years after the operation, therefore lifelong imaging supervision is necessary.
Keywords: Ct Angiography;Evar;Endoleaks;Detection;Classification.

98. Large Primary Vaginal Stone Secondary to Vesico-Vaginal Fistula in A 63-Year-Old Woman

Tamer W. Kassem

Egyptian Journal Of Radiology And Nuclear Medicine, 48: 303-305 (2017)

Vaginal stones are incredibly rare. Primary stones are seen in cases of urethro-vaginal or vesico-vaginal fistula. Secondary stones are more common and caused by deposition of calcium over foreign bodies introduced into the vagina. This report presents a case of a 63-year-old woman with vesico-vaginal fistula incidentally diagnosed to have large vaginal stone. The patient was referred to our practice suffering from urine dribbling through the vagina for a long time secondary to vesico-vaginal fistula. She has had repetitive unsuccessful attempts of surgical repair. MRI examination of the pelvis was requested aiming to locate the site of the fistula.
Keywords: Vaginal Stone;Vesico-Vaginal Fistula.

99.Complicated Ivc Anomalies: Are They More Common Than we Thought? an Experience of 100 Mdct Venography Examinations

Tamer W. Kassem

Egyptian Journal Of Radiology and Nuclear Medicine, 48: 141-145 (2017)

Objective: The aim of this study was to monitor the incidence of complicated inferior vena cava (IVC) anomalies and evaluate the role of Multidetector Computed Tomographic Venography (MDCTV) in diagnosis and assessment of associated venous collaterals, lower limb deep venous thrombosis (DVT) or varicose veins (VV).**Patients and methods:**During two years duration 100 patients with clinical history and complains suggesting of DVT or VV were prospectively evaluated after performance of MDCTV examination. The images obtained were interpreted and reconstructed using dedicated software and work stations. Results were correlated with Color Doppler Ultrasound (CDUS) findings.**Results:**Out of 100 cases, 9 cases (9%) were diagnosed to have complicated IVC anomalies while 91 cases (91%) had either well developed IVC or common anatomical variations. 6 cases (66.7%) had complicated IVC anomalies and 3 cases

(33.3%) had associated complicated common iliac veins (CIV) anomalies. 8 cases (88.9%) had associated DVT and all cases (100%) had bilateral VV. 2 cases (22.2%) had associated varicocele and 1 case (11.1%) had associated KILT syndrome.**Conclusion:**MDCT venography examination has a major role in diagnosis of complicated IVC anomalies and detection of associated venous collaterals, lower limb DVT or VV.

Keywords: Nferior Vena Cava;Mdct Venography;Venous Collaterals;Deep Venous Thrombosis;Varicose Veins.

100. Omental Deposits Surveillance in Gynecological Malignancies at First Setting Follow Up: 18F-Fdg Pet/Ct Compared to Ct

Tamer W. Kassem

Egyptian Journal Of Radiology and Nuclear Medicine, 48: 537-545 (2017)

Objective: The aim of this study was to compare the diagnostic performance of positron emission tomography/computed tomography (PET/CT) scan and CT scan in follow up of proven gynecological malignancies omental deposits in first setting follow up after treatment.**Patients and methods:**60 female patients having proven omental deposits from gynecological malignancies underwent PET/CT examination following a preset protocol as baseline study. 34 cases of them had a second PET/CT examination following same protocol after 5–11 months considered as first setting follow up study aiming to assess therapeutic response.**Results:**Out of 34 cases 2 cases (6%) showed only newly developed lesions, 8 cases (23.5%) showed progression, 8 cases (23.5%) showed mixed response and 16 cases (47%) showed regression or complete resolution. In first setting follow up examination 18F-FDG PET/CT showed 31 TP, 2 TN and 1 FN cases while CT showed 29 TP, 2 TN, 2 FN and 1 FP cases. 18F-FDG PET/CT vs. CT revealed sensitivity, specificity and accuracy of 96.88% vs. 93.55%, 100% vs. 66.67% and 97.06% vs. 91.18% respectively.**Conclusion:** 18F-FDG PET/CT is more accurate than CT in assessment of therapeutic response of proven gynecological malignancies omental deposits in first setting follow up.

Keywords: Omental;Gynecological Malignancies;Follow Up;18F-Fdg Pet/Ct.

101. Ileal Crohn''s Disease Activity Predicted by Ruler: Ct Enterography Histopathology Correlation

Tamer W. Kassem

Egyptian Journal Of Radiology and Nuclear Medicine, 48: 7-13 (2017)

Objective: The aim of this study was to explore the predictive value of CT enterography-based simple measurement tools for Crohn's disease activity.**Patients and methods:** During one and half year duration 54 patients diagnosed with CD were retrospectively evaluated. All patients underwent CT enterography examinations following a preset protocol prior to endoscopic biopsy or surgery. The images obtained were reconstructed using dedicated software and workstations. The length of affected segments was calculated (L) and distance from ileocecal junction till first affected segment was measured (D). Results of CTE examinations were compared with histopathology.**Results:**Out of 54 cases, 38 cases had single segment involvement (70.4%) and 16 cases had multiple affected segments (29.6%). The histological inflammatory activity score scored 1 in 10 cases (18.5%), 2 in 25 cases (46.3%) and 3 in 19 cases (35.2%). L varied from 1.4 cm to 20.6 cm while D varied from 0 to 6.7 cm. Spearman rank order correlation coefficient showed a strong uphill linear relationship of L (RHO = 0.663) and weak correlation of D (RHO = 0.222) with the histological inflammatory activity score.**Conclusion:** CTE provides accurate data regarding length of affected ileal segments that positively correlated with histopathological score of disease activity.

Keywords: Crohn's Disease;Activity;Ruler;Ct Enterography.

102. Loco-Regional Staging of Cervical Carcinoma: is There A Place for Multidetector Ct?

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Egyptian Journal Of Radiology And Nuclear Medicine, 48: 307-311 (2017)

Objectives: Computer tomography (CT) is the most widely used diagnostic modality in the routine evaluation of distant metastatic disease. We aimed to evaluate the role of Multidetector CT (MDCT) in local staging of cervical malignancies. **Patients and methods:** In this prospective study 26 patients with pathologically proven cervical malignancies performed postcontrast MDCT of the abdomen and pelvis for local staging. Reconstruction of images was performed in the workstation. In a sample of 12 patients an extended study in which delayed images were obtained for more accurate ureteric evaluation. Data were analyzed using SPSS and McNemar test was used to calculate accuracy. **Results:** The overall accuracy of CT was 61.5% excluding the discrepancy in staging between CT and examination under anesthesia (EUA) due to distant metastases (three cases had distant metastases in CT which was not evaluated in EUA). This value was raised to 77% if vagina was assessed clinically rather than by CT. **Conclusion:** In cervical cancer; CT gave better results in staging of advanced cases than in early staged ones. Local staging was improved by acquisition of delayed scans.

Keywords: Multidetector Ct;Cervical Carcinoma;Cancer Staging;Local Staging.

Dept. of Ear Nose & Throat

103. Tongue Reduction for Osahs: Torss Vs Coblations, Technologies Vs Techniques, Apples Vs Oranges

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European Archives Of Oto-Rhino-Laryngology, 274 (2): 637-645 (2017) IF: 1.66

Coblation tongue surgery and Trans-oral robotic surgery (TORS) proved to be the most published therapeutical options for the treatment of patients affected by obstructive sleep apneas (OSAHS). A systematic review of the literature and an analysis of the data are presented. The mean rates of failure were 34.4 and

38.5 %, respectively in TORS and Coblation groups. Complications occurred in 21.3 % of the patients treated with TORS and in 8.4 % of the patients treated with Coblation surgery. TORS seems to give slightly better results, allowing a wider surgical view and a measurable, more consistent removal of lingual tissue. However, the higher rate of minor complication and the significant costs of TORS must also be considered. Moreover, both technologies may be applied to a wide range of surgical techniques, each of them with different effectiveness.
Keywords: Osahs Trans Oral Robotic Surgery Coblation Tongue Base Technology.

104. Transoral Robotic Surgery for the Management of Obstructive Sleep Apnea: A Systematic Review and Meta-Analysis

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European Archives Of Oto-Rhino-Laryngology, 274 (2): 647-653 (2017) IF: 1.66

Obstructive sleep apnea–hypopnea syndrome (OSAHS) is a serious social health problem with significant implications on quality of life. Surgery for OSAHS has been criticized due to a lack of evidence to support its efficacy as well as the heterogeneous reporting of published outcomes. Moreover, the transoral robotic surgery (TORS) in the management of OSAHS is still in a relative infancy. Nevertheless, a review and meta-analysis of the published articles may be helpful. Among 195 articles, eight studies were included in the analysis. The mean of enrolled patients was 102.5 ± 107.9 (range 6–289) comprising a total of 820 cases. The mean age was 49 ± 3.27 and 285 patients underwent a previous sleep apnea surgery. The uvulopalatopharyngoplasty (UPPP) was the most common palatal procedure. The mean rate of failure was 34.4 % (29.5–46.2 %). Complications occurred in 21.3 % of the patients included in the analysis, most of them were classified as minor. Transient dysphagia represented the most common complication (7.2 %) followed by bleeding (4.2 %). TORS for the treatment of OSAHS appears to be a promising and safe procedure for selected patients seeking an alternative to continuous positive airway pressure (CPAP), although further researches are urgently needed.
Keywords: Transoral Robot Sleep Apnea Base of Tongue Complication Outcome.

105. Swallowing Disorders Among Patients with Diffuse Idiopathic Skeletal Hyperostosis

Mosaad Abdel-Aziz, Noha Azab, Hisham Lasheen, Nader Naguib and Ramez Reda

Acta Oto-Laryngologica, 137: 623-626 (2017) IF: 1.116

Conclusion: Diffuse idiopathic skeletal hyperostosis (DISH) is a cause of swallowing disorders in elderly,and otolaryngologists should be aware of the disease on dealing with old patients complaining of dysphagia.The condition may be treated conservatively in most patients; however, surgical reduction ofcervical osteophytes may be needed in severe cases.Objective: Large cervical osteophytes may cause dysphagia; they compress the pharynx leading tomechanical impairment of swallowing. DISH is characterized by ossification of the anterior longitudinal spinal ligament with formation of osteophytes. The aim was to investigate swallowing disorders among patients with DISH.Method: The study included 139 patients with DISH. Their swallowing was evaluated using the eating assessment tool (EAT-10), and patients with swallowing disorders were subjected to fiber-optic endoscopicevaluation of swallowing (FEES), they received conservative treatment for 6 months. Patientswere assessed again after treatment using the same measures that were employed before treatment.Results: Twenty-three patients (16.5%) demonstrated swallowing disorder, and FEES showed residues of food in the pharynx after swallow in all of them. Significant overall improvement after conservativetreatment was achieved, with two patients resuming their normal regular diet. However, one patient demonstrated no improvement, and he needed surgical reduction of his large cervicalosteophytes.
Keywords: Dysphagia;Swallowing Difficulty;Cervical Osteophytes;Dish;Spinal Ligament.

106. The Effect of Adenotonsillectomy on Obstructive Sleep Apnea in Children with Down Syndrome

Mosaad Abdel-Aziza, Khaled Azooza, Nader Naguibb, Ramez Redab and Ahmed Kamelb

Acta Oto-Laryngologica, 137: 981-985 (2017) IF: 1.116

Objective: Children with Down syndrome (DS) are liable to develop obstructive sleep apnea (OSA) dueto many anatomical airway abnormalities. The tonsils and adenoid occupy part of the airway space,and their removal may be helpful in relieving airway obstruction. The aim of this study was to assessthe effectiveness of adenotonsillectomy in the treatment of OSA in those children.Methods: Fifty DS children with difficult breathing were recruited, and they were subjected to polysomnographic examination (PSG). Patients with apnea-hypopnea index (AHI)>1 were considered to have OSA. Adenotonsillectomy was performed for patients who had OSA and adenotonsillar hypertrophy, and after 3 months PSG was done for them with recording of the same preoperative parameters. Results: Forty-three children demonstrated OSA on PSG, and they were included in the study. The preoperative mean AHI was 9.18 (± 6.17) that improved postoperatively to 2.72 (± 3.80) with its normalizationin 72% of patients. Also, significant improvement of arousal index, minimum oxygen saturation, desaturation index, and peak end-tidal CO2 was achieved postoperatively. Conclusion: Adenotonsillectomy is an effective method for the treatment of OSA in children with DS.However, the condition may persist in some children who usually have airway narrowing at multiple levels.
Keywords: Down Syndrome;Obstructive Sleep Apnea;Adenotonsillar Hypertrophy;Adenotonsillectomy.

107.Maxillary Sinus Mucocele: Predisposing Factors, Clinical Presentations, and Treatment

Mosaad Abdel-Aziz Hassan El-Hoshy Khaled Azooz Nader Naguib2 and Ahmed Hussein

Oral And Maxillofacial Surgery, 21: 55-58 (2017)

Purpose Maxillary sinus mucocele (MSM) is uncommon lesionand has many presenting features. The aim of this studywas to detect the possible predisposing factors, clinical characteristics,and to assess the efficacy of trans-nasal endoscopictreatment of this lesion.**Methods** This retrospective multicenter study was conductedon 36 patients with MSM, the diagnosis of the disease wasbased on computed tomographic criteria. The patients' history,presenting features, and surgical management werereviewed. All patients were followed up postoperatively forat least 3 years.**Results** Chronic sinusitis, previous surgery, allergic rhinitis,and nasal trauma may be implicated as predisposing factorsfor the disease. However, in some patients (56%) the causemay remain uncertain. MSM may present with unilateralcheek pain, heaviness, swelling, numbness, hemifacial pain,nasal obstruction, nasal discharge, and/or proptosis. All patientswere treated with trans-nasal endoscopicmarsupialization through the middle meatus, patients withlarge MSM showed bulged medial maxillary wall, and theyneeded to empty the fluid through inferior antrostomy to facilitateintroduction of the instruments to the middle meatus.All patients reported resolution of their symptoms, and nonerequired revision surgery through the follow-up period.**Conclusions** MSM has several predisposing factors such aschronic sinusitis, previous surgery, allergic rhinitis and nasaltrauma. However, some patients have no identifiable cause.The disease can present with a variety of symptoms which areusually related to their expansion and subsequent pressure onthe surrounding structures. Trans-nasal endoscopic approachis an effective and safe method for treatment of the lesion.
Keywords: Maxillary Sinus Mucocele;Endoscopic Sinus Surgery;Paranasal Sinuses;Endoscopic Marsupialization.

108. Narrow Band Ce-Chirp Stimulus in Auditory Steady State Response Threshold Estimation in Normal Hearers and Patients with Various Degrees of Sensorineural Hearing Loss

Abeir Osman Dabbous , Amira Maged El-Shennawy, Mariam Magdy Medhat and Dina Fouad Abdel-Latief

Hearing, Balance And Communication, 15 (4): 199-213 (2017)

Background: Auditory steady-state responses (ASSRs) are periodic scalp potentials that arise in response to auditory stimuli. Narrow-band (NB) CE-Chirps stimuli have been developed to combine the advantages of compensation for the cochlear traveling wave delay and frequency specificity.**Objectives:** To measure the hearing threshold objectively using ASSR in adults with normal behavioural hearing thresholds and adult patients with different degrees of sensorineural hearing loss (SNHL) and its comparison to the behavioural thresholds.**Methods:** In the present study, 35 subjects (70 ears) were enrolled. Ears were grouped according to the level of hearing obtained by pure tone audiometry (PTA) into 7 equal groups. NB-CE-Chirp ASSR was done for all groups by means of auditory-evoked potential device.**Results:** The estimated ASSR audiograms configuration matched the behavioural curves. ASSR was equally accurate at all frequencies tested except for 1 kHz in the normal-hearing group who showed less accuracy compared to 500 and 4000 Hz in air conduction (AC) and in bone conduction (BC). Although the AC estimation was not equal among the different degrees of hearing compared to the BC estimation, the AC PTA-ASSR thresholds difference range was small. BC PTA-ASSR threshold difference was statistically significantly less than AC at all tested degrees of hearing loss, in most of the frequencies; which reflects that the ASSR was more accurate in estimating BC than the AC thresholds. There was a negative correlation regarding behavioural BC PTA thresholds with PTA-ASSR threshold difference and PTA-estimated audiograms threshold difference at all tested frequencies.**Conclusion:** ASSR using either AC or BC NB-CE-Chirp is a reliable objective method in estimating the behavioural threshold in normal hearers and patients with various degrees of SNHL, so it can be used in difficult-to-test cases where accurate behavioural thresholds could not be obtained.
Keywords: Air Conduction;Auditory Steady-State Response;Bone Conduction;Hearing Threshold;Narrow-Band Ce-Chirps;Sensorineural Hearing Loss.

Dept. of Endemic

109. Cap Assisted Upper Endoscopy For Examination of The Major Duodenal Papilla: A Randomized, Blinded, Controlled Crossover Study (Cappa Study)

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American Journal Of Gastroenterology, 112: 725-733 (2017) IF: 9.566

Examination of major duodenal papilla (MDP) by standard forward-viewing esophagogastroduodenoscopy (S-EGD) is limited. Cap assisted esophagogastroduodenoscopy (CA-EGD) utilizes a cap fitted to the tip of the endoscope that can depress the mucosal folds and thus might improve visualization of MDP. The aim of this study was to compare CA-EGD to S-EGD for complete examination of the MDP.Methods:Prospective, randomized, blinded, controlled crossover study. Subjects scheduled for elective EGD were randomized to undergo S-EGD (group A) or CA-EGD (group B) before undergoing a second examination by the alternate method. Images of the MDP were evaluated by three blinded multicenter-experts. Our primary outcome measure was complete examination of the papilla. Secondary outcome measures were duration and overall diagnostic yield.Results:A total of 101 patients were randomized and completed the study. Complete examination of MDP was achieved in 98 patients using CA-EGD compared to 24 patients using S-EGD (97 vs. 24%, P<0.001). Median duration from intubation of the esophagus until localization of the MDP was shorter with CA-EGD (46. vs. 96 s., P<0.001). In group A, 11 extra lesions and 12 additional incidental findings were detected by secondary CA-EGD, whereas neither were detected by secondary S-EGD in group B (22 vs. 0% and 24 vs. 0%, P<0.001 and P<0.001).Conclusion:CA-EGD enabled complete examination of MDP in almost all cases compared to a low success rate of S-EGD. CA-EGD detected a significant amount of lesions and incidental findings when added to S-EGD. CA-EGD is a safe and effective method for examination of MDP.
Keywords: Upper Endoscopy For Examination Of The Major Duodenal Papilla.

110. Sofosbuvir-Based Treatment Regimens: Real Life Results of 14 409 Chronic Hcv Genotype 4 Patients In Egypt.

A. Elsharkawy, R. Fouad, W. El Akel, M. El Raziky, M. Hassany, G. Shiha, M. Said, I. Motawea, T. El Demerdash, S. Seif, A. Gaballah, Y. El Shazly, M. A. M. Makhlouf, I. Waked, A. O. Abdelaziz, A. Yosry, M. El Serafy, M. Thursz, W. Doss and G. Esmat

Alimentary Pharmacology And Therapeutics, 45(5): 681-687 (2017) IF: 7.286

Background: Chronic hepatitis C virus infection is one of the most important health problems in Egypt. The Ministry of Health's National Treatment Programme introduced sofosbuvir-based therapy in October 2014.**AIM:**To assess the clinical effectiveness and predictors of response to SOF-based treatment regimens, either dual therapy, with SOF/ribavirin (RBV) for 6 months or triple therapy with SOF/peg-IFN-alfa-2a/RBV for 3 months, in a cohort of patients treated in National Treatment Programme affiliated centres in Egypt.**Methods:**Between October 2014 and end of 2014, patients who were eligible for treatment were classified according to their eligibility for interferon therapy: Group 1 (interferon eligible) were treated with triple therapy for 12 weeks and Group 2 (interferon ineligible) were treated with dual therapy for 24 weeks. Difficult to treat patients included those with F3-F4 on Metavir score, Fib-4 >3.25, albumin ≤3.5, total Bilirubin >1.2 mg/dL, INR >1.2 and platelet count <150 000 mm3 .**Results:**Twelve weeks post-treatment data were available on 14 409 patients; 8742 in group 1 and 5667 in group 2. In group 1, the sustained virological response at week 12 (SVR12) was 94% and in group 2 the SVR12 was 78.7%. Multivariate logistic regression analysis in which treatment failure is the dependent variable was done. Male gender, being a difficult to treat patient and previous interferon therapy were significant predictors of nonresponse in both treatment groups.**Conclusion:**Results of sofosbuvir-based therapies in Egypt achieved similar rates of SVR12 as seen in phase III efficacy studies.

Keywords: Daas; Standard Of Care; Sustainedvirological Response; Predictors Of Response; Liver Cirrhosis

111. Increased Incidence of Cytomegalovirus Coinfection In Hcv-Infected Patients with Late Liver Fibrosis is Associated with Dysregulation of Jak-Stat Pathway

Ibrahim MK, Khedr A, Bader El Din NG, Khairy A and El Awady MK.

Scientific Reports, 4: 10364-0 (2017) IF: 4.259

Herein, we examined the association between cytomegalovirus (CMV) coinfection and the progression of liver fibrosis in hepatitis C virus (HCV) infection, and investigated the effect of CMV coinfection on JAK-STAT pathway. CMV DNAemia was detected by PCR in DNA from controls (n = 120), and HCV patients with early (F0-F1, n = 131) and late (F2-F4, n = 179) liver fibrosis. By quantitative real time PCR (qRT-PCR), we examined the profile of 8 JAK-STAT transcripts in PBMCs RNA from 90 HCV patients (39 CMV positive and 51 CMV negative), 4 CMV mono-infected patients, and 15 controls. Our results demonstrated higher incidence of CMV in F2-F4 group than in control (OR 5.479, 95% CI 3.033-9.895, $p < 0.0001$) or F0-F1 groups (OR 2, 95% CI 1.238-3.181, $p = 0.005$). qRT-PCR showed downregulation of STAT2 ($p = 0.006$) and IRF7 ($p = 0.02$) in CMV positive group compared to CMV negative one. The downregulation of STAT2 and IRF7 was mainly in CMV positive patients with late fibrosis compared to CMV negative patients ($p = 0.0007$ for IRF7 and $p = 0.01$ for STAT2). Our results are the first to report that CMV coinfection is a possible risk factor for the progression of HCV-induced liver fibrosis, and thereby CMV screening and treatment are important for HCV patients

Keywords: Cmv;Hcv;Fibrosis.

112. Simeprevir Plus Sofosbuvir For Eight or 12 Weeks in Treatment-Naïve and Treatment-Experienced Hepatitis C Virus Genotype 4 Patients with or Without Cirrhosis

M. El Raziky, M. Gamil, M. K. Ashour, E. A. Sameea, W. Doss, Y. Hamada, G. Van Dooren, R. DeMasi, S. Keim, I. Lonjon-Domanec, R. Hammad, M. S. Hashim, M. Hassany and I. Waked

Journal Of Viral Hepatitis, 24(2): 102-110 (2017) IF: 4.122

The OSIRIS study investigated efficacy and safety of simeprevir plus sofosbuvir for eight or 12 weeks in hepatitis C virus (HCV) genotype 4-infected patients with METAVIR F0-F4 fibrosis. Sixty-three patients (33 treatment-naïve and 30 peg-interferon/ribavirin (Peg-IFN/RBV)-experienced) enrolled in a partly randomized, open-label, multicentre, phase IIa study. Patients with F0-F3 fibrosis were randomized (1:1) into two groups (A1 and A2), stratified according to treatment experience and METAVIR score, to receive either eight weeks (Group A1, n=20) or 12 weeks (Group A2, n=20) of treatment. Patients with compensated cirrhosis (METAVIR F4) received 12 weeks of treatment (Group B, n=23). Treatment comprised simeprevir 150 mg and sofosbuvir 400 mg daily. The primary efficacy endpoint was sustained virologic response 12 weeks after planned end of treatment (SVR12). Safety and tolerability were assessed throughout. Overall, 92% (95% CI: 82-97) of patients achieved SVR12; 75% (15/20) in Group A1 and 100% in groups A2 and B. Patients who did not achieve SVR12 (n=5) experienced viral relapse during the first 32 days following treatment and were all prior Peg-IFN/RBV null responders. The most commonly reported treatment-emergent adverse events (TEAEs) were asymptomatic lipase increase (14%), pruritus (14%), headache (13%) and hyperbilirubinaemia (11%). No patients discontinued due to TEAEs. In conclusion, simeprevir plus sofosbuvir for 12 weeks achieved a 100% SVR rate in HCV genotype 4-infected patients with or without compensated cirrhosis (ClinicalTrials.gov: NCT02278419). The AE and laboratory profile were favourable and consistent with previous data for simeprevir plus sofosbuvir in eight- and 12-week regimens.

Keywords: Egypt;Genotype 4;Hepatitis C;Simeprevir;Sustained Virologic Response.

113. National Treatment Programme of Hepatitis C in Egypt: Hepatitis C Virus Model of Care

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Journal Of Viral Hepatitis, 24: 262-267 (2017) IF: 4.122

Hepatitis C virus (HCV) infection is a major health problem in Egypt as the nation bearsthe highest prevalence rate worldwide.

This necessitated establishing a novel model ofcare (MOC) to contain the epidemic, deliver patient care and ensure global treatmentaccess. In this review, we describe the process of development of the Egyptian modeland future strategies for sustainability. Although the magnitude of the HCV problemwas known for many years, the HCV MOC only came into being in 2006 with the establishmentof the National Committee for Control of Viral Hepatitis (NCCVH) to setup and implement a national control strategy for the disease and other causes of viralhepatitis. The strategy outlines best practices for patient care delivery by applying aset of service principles through identified clinical streams and patient flow continuums.The Egyptian national viral hepatitis treatment programme is considered one ofthe most successful and effective public health programmes. To date, more than onemillion patients were evaluated and more than 850 000 received treatment under theumbrella of the programme since 2006. The NCCVH has been successful in establishinga strong infrastructure for controlling viral hepatitis in Egypt. It established a nationwidenetwork of digitally connected viral hepatitis-specializedtreatment centrescovering the country map to enhance treatment access. Practice guidelines suitinglocal circumstances were issued and regularly updated and are applied in all affiliatedcentres. This review illustrates the model and the successful Egyptian experience. Itsets an exemplar for states, organizations and policy-makerssetting up programmesfor care and management of people with hepatitis C.

Keywords: Chronic Hcv; Egypt; Model Of Care; National Committee For Control Of Viral Hepatitis

114. Real Life Egyptian Experience of Efficacy and Safety if Simeprevir/Sofosbuvir Therapy in 6211 Chronic Hcv Genotype iv Infected Patients

Rasha Eletreby, Wafaa Elakel, Mohamed Said, Mohamed El Kassas, Sameh Seif, Tamer Elbaz, Maissa El Raziky, Siham Abdel Rehim, Samy Zaky, Rabab Fouad, Hadeel Gamal Eldeen, Mahmoud Abdo, Mohamed Korany, Ayman Yosry, Magdy El Serafy, Manal Hamdy El-Sayed, Yehia ElShazly, Imam Waked, Wahid Doss and Gamal Esmat

Liver International, 37: 534-541 (2017) IF: 4.116

Background & Aims: Major changes have emerged during the last few years in the therapy of chronic HCV. Several direct acting antiviral agents have been developed showing potent activity with higher rates of sustained virological response, even in difficult-to-treat patients. This study explores real life experience concerning efficacy, safety and possible predictors of response for the first cohort of Egyptian patients with chronic HCV genotype IV treated with Sofosbuvir/Simprevir combination therapy.**Methods:**This real life study recruited the first (6211) chronic HCV genotype IV Egyptian patients, who received antiviral therapy in viral hepatitis specialized treatment centres affiliated to the National committee for control of viral hepatitis. All enrolled patients received 12 weeks course of daily combination of sofosbuvir (400 mg) and simeprevir (150 mg). Patients were closely monitored for treatment safety and efficacy.**Results:**Overall sustained virological response 12 rate was 94.0% while the end of treatment response rate was 97.6%. sustained virological response 12 rates in easy and difficult-to-treat groups were 96% and 93% respectively. Univariate and multivariate logistic regression analysis revealed significant association of low albumin (<3.5), cirrhosis and Fib-4 score (>3.25) with treatment failure. Fatal adverse events occurred in 23/6211 cases (0.37%) due to liver cell failure adverse events or SAEs leading to treatment discontinuation occurred in 97 patients (1.6%).**Conclusion:**Sofosbuvir/Simeprevir combination is an effective and well tolerated regimen for patients with chronic HCV genotype IV.

Keywords: Hcv Genotype Iv;Sofosbuvir/Simeprevir;Efficacy;Safety.

115. res_id: 2199 J res_wcode: 2061 Response to Real Life Egyptian Experience of Efficacy / Safety of Simeprevir\ Sofosbuvir in Hcv Genotype Iv

Rasha Eletreby Wafaa Elakel Maissa El Raziky Gamal Esmat

Liver International, 37: 766-766 (2017) IF: 4.116

no

Keywords: No

116. Endoscopic Management of Eroded Bands Following Banded-Gastric Bypass (with Video)

Hany Shehab and Khaled Gawdat

Obesity Surgery, 27: 1804-1808 (2017) IF: 3.947

BackgroundBanded-gastric bypass is a highly effective bariatric procedure, yet the possibility of band erosion remains a significant drawback. Surgical removal of eroded bands may be associated with significant morbidity. In this study, we assess the efficacy and safety of a solely peroral endoscopic approach for the management of eroded bands in patients with a banded-gastric bypass.**Materials and Methods**Starting January 2012, all patients with banded-gastric bypass and an eroded band were subjected to an attempt at peroral endoscopic removal using endoscopic scissors and/or argon plasma coagulation (APC), regardless of the circumference of band eroding inside the lumen.**Results**Sixteen patients presented with eroded bands, 2 were deemed not amenable to endoscopic removal as only part of the thickness was eroded. Of the 14 patients where endoscopic attempts were performed, 12 (86%) were completely removed successfully, while 2 (14%) were cut but could not be extracted and only the intraluminal portion was trimmed. Complete resolution of symptoms occurred in 13 (93%) while in 1 patient (7%) there was partial improvement. Only one endoscopic session was performed per patient with a median time of 37.5 min per session (22–55 min). No complications were encountered.**Conclusion:**Endoscopic removal of eroded gastric bands in patients with banded-gastric bypass is effective and safe in the majority of patients. When bands are adherent to the gastric wall, removal of the intraluminal portion of the band may lead to full or partial improvement of symptoms. Endoscopic band removal can be attempted even when a small part of band circumference has eroded.

Keywords: Obesity;Band Erosion;Eroded Band;Ring Erosion;Gastric Bypass;Surgery Complications;Banded–Gastric Bypass;Endoscopic Bariatric.

117. Discovery and Preclinical Development of Dasabuvir for the Treatment of Hepatitis C Infection

Mohamed El Kassas, Tamer Elbaz, Enas Hafez, Mohamed Naguib Wifi and Gamal Esmat

Expert Opinion On Drug Discovery, 12: 635-642 (2017) IF: 3.876

Hepatitis C virus (HCV) is a leading cause of liver-related morbidity and mortality. Positively, the introduction of new directly-acting antivirals (DAAs) have led to dramatic improvements in response rates to antiviral therapy. Furthermore, newer generations of DAAs have demonstrated better safety profiles as well as efficacy than older generations. Current treatment recommendations are based on different combinations of DAAs. Current combination therapies rely on agents that target the different steps of viral replication by using different molecules from various DAAs families. Areas covered: In this review, the authors summarize data from of one of the recently developed NS5B polymerase inhibitors, dasabuvir, formerly known as ABT-333. Herein, the authors discuss the drug discovery data for dasabuvir including data from preclinical, toxicological resistance studies. The authors also review dasabuvir's clinical efficacy across various clinical challenges, in addition to its limitations in clinical practice. Expert opinion: Dasabuvir represents an important medical advance when used as a combination therapy for HCV. Unfortunately, it does present limitations like low genotypic coverage and further research is still required to address some of the lingering issues.

Keywords: Hepatitis C Virus;Dasabuvir;Drug Discovery;Preclinical.

118. Changes in Liver Stiffness Measurements and Fibrosis Scores Following Sofosbuvir Based Treatment Regimens Without Interferon.

Aisha Elsharkawy, Shereen Abdel Alem, Rabab Fouad,Maissa El Raziky, Wafaa El Akel, Mahmoud Abdo, Omnia Tantawi, Mohamed AbdAllah, Marc Bourliere and Gamal Esmat

Journal Of Gastroenterology And Hepatology, 32: 1624-1630 (2017) IF: 3.452

Background and Aim: Accurate evaluation of the degree of liver fibrosis in patients with chronic liver diseases is crucial, as liver fibrosis is important in order to make therapeutic decisions, determine prognosis of liver disease and to follow-up disease progression. Multiple non-invasive methods have been used successfully in the prediction of fibrosis; however, early changes in non-invasive biomarkers of hepatic fibrosis under effective antiviral therapy are widely unknown. The aim of this study is to evaluate changes of transient elastography values as well as FIB-4 and AST to platelet ratio index (APRI) in patients treated with Sofosbuvir-based treatment regimen.**Methods:**This is a retrospective study including 337 chronic HCV Egyptian patients with genotype 4 mainly. They were treated with Sofosbuvir-based treatment regimen. Transient elastography values were recorded as well as FIB-4 and APRI were calculated at baseline and SVR12.**Results:**There was a significant improvement of platelets counts, ALT and AST levels, which in turn cause significant improvement in FIB-4 and APRI scores at SVR12. Liver stiffness measurements were significantly lower in SVR12 (14.8 ± 10.7 vs 11.8 ± 8.8 kPa, P = 0.000). About 77% of responders and 81.1% of cirrhotic patients showed improvement in liver stiffness measurements at SVR12.Univariate and multivariate regression analysis showed that failure to achieve improvement in liver stiffness measurements were significantly associated with relapsers and low baseline liver stiffness measurement. **Conclusion:** Sofosbuvir-based treatment resulted in a clinically significant improvement in parameters of liver fibrosis.

Keywords: Sofosbuvir-Based Treatment;Chronic Hepatitis C Virus;Fibrosis Scores;Transient Elastography.

119. Impact of Different Sofosbuvir Based Treatment Regimens on the Biochemical Profile of Chronic Hepatitis C Genotype 4 Patients.

Aisha Elsharkawy, Rasha Eletreby, Rabab Fouad, Zeinab Soliman, Mohamed Abdallah, Mohamed Negm, Mohammad Mohey and Gamal Esmat

Expert Review Of Gastroenterology & Hepatology, 11: 773-778 (2017) IF: 2.743

Background: Huge efforts have been made to control chronic HCV in Egypt with introduction of Direct-Acting Antivirals (DAAs). Current study aims at evaluating effect of various DAA regimens on liver biochemical profile and haematological indices during treatment.**Methods:** 272 patients with chronic HCV

genotype 4 treated by different DAA regimens (SOF/RBV, SOF/DAC ± RBV, SOF/SIM) for a duration of 12 or 24 weeks in Kasr Alainy Viral Hepatitis Center, Cairo University were followed up for serum bilirubin (BIL), albumin (ALB), alanine transaminase (ALT), aspartate aminotransferase (AST), prothrombin concentration, international normalized ratio (INR), and CBC at baseline, week-4 and end of treatment.Results: Mean age was 54 years. Males comprised 64.7%, 72.4% were treatment-naïve, 39% were cirrhotic. Overall SVR12 rate was (93.4%). With all regimens, ALT and AST declined after treatment. In cirrhotics, there was a rise in BIL and INR; with no change in ALB and a decrease in White blood cells. Drop in Hemoglobin and platelets in cirrhotic patients were noted with SOF/RBV, while SOF/SIM showed rise in BIL.Conclusion: DAAs are safe and effective in genotype 4 chronic HCV patients. It improves liver necro-inflammatory markers in cirrhotics and non-cirrhotics. Cirrhotic patients require careful observation being more vulnerable for treatment related complications.

Keywords: Biochemical Profile;Cbc;Chronic Hepatitis C Virus;Genotype Iv;Direct Acting Antiviral (Daas).

120. Transient Elastography as A Noninvasive Assessment Tool for Hepatopathies of Different Etiology in Pediatric Type 1 Diabetes Mellitus.

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Journal Of Diabetes And Its Complications, 31: 186-194 (2017) IF: 2.734

Aim: To identify the prevalence and effect of hepatopathies of different etiologies among pediatric patientswith type 1 diabetes mellitus (T1DM) using transient elastography (TE) and its relation to glycemic control.**Methods:** One hundred T1DM patients were studied focusing on liver functions, fasting lipid profile,hemoglobin A1c (HbA1c), hepatitis C virus (HCV), serum immunoglobulins, autoimmune antibodies;anti-nuclear antibody (ANA), anti-smooth muscle antibody (ASMA), and anti-liver kidney microsomalantibody (anti-LKM). Abdominal ultrasound was performed and TE was done for patients with HCV, positiveautoimmune antibody and/or abnormal ultrasound findings.**Results:** Thirty-one patients were found to have one or more hepatic abnormalities; clinical hepatomegaly in8%, elevated alanine aminotransferase (ALT) in 10%, HCV in 6%, autoimmune hepatitis (AIH) in 11% (10 werepositive for ASMA and 2 were positive for ANA while anti-LKM antibodies were negative) and abnormalhepatic ultrasound in 20% (12 non-alcoholic fatty liver disease, 5 AIH, 2 HCV, 1 Mauriac syndrome). Mean liverstiffness in those 31 patients was 7.0 ± 2.1 kPa (range, 3.1–11.8 kPa); 24 were Metavir F0–F1, 7 were F2–F3while none was F4. Type 1 diabetic patients with abnormal hepatic ultrasound had higher fasting bloodglucose, HbA1c and total cholesterol than those with normal findings. Liver stiffness was significantly higherin patients with abnormal liver ultrasound compared with normal sonography. Liver stiffness was positivelycorrelated to HbA1c and ALT.**Conclusions:** Hepatic abnormalities are prevalent in T1DM and related to poor metabolic control. TE provides anon-invasive method for detection of hepatopathy-induced fibrosis

Keywords: Type 1 Diabetes;Hepatitis C;Autoimmune Hepatitis; Nafld;Liver Stiffness;Transient Elastography.

121. Serum Zinc Deficiency and its Relation to Liver Fibrosis in Chronic Hcv: A Real-Life Egyptian Study.

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Biological Trace Element Research, 179: 1-7 (2017) IF: 2.399

Zinc is essential for the activation of approximately300 metallo-enzymes. Serum and hepatic zinc is decreased inchronic liver disease patients, and zinc depletion has beensuggested to accelerate liver fibrosis. The study was designedto assess Zinc status in chronic HCV Egyptian patients and itsrelationship to fibrosis stage diagnosed by FibroScan. Thiswas a cross-sectional study on 297 Egyptian patients withnaïve chronic HCV. All patients underwent laboratory tests(including assessment of serum Zinc) and liver stiffness measurement(LSM) by Transient Elastography (FibroScan®).The study included 170 (57.2%) females and 127 (42.8%)males with a mean age 52.4 ± 10.2 years. Most of the patientshad zinc deficiency as the mean zinc level was 55.5 ± 30.7 µg/dl. The FibroScan scores showed that 97 patients had mild tomoderate fibrosis (≤F2), while 200 patients had advanced tosevere fibrosis (F2). Zinc level was significantly lower inpatients with F2 than those with ≤F2 (52 ± 30.7 vs62.5 ± 29.7, p value: 0.005), as the zinc values decreased withthe progression of liver fibrosis. Serum zinc level had anegative significant correlation with INR and negativesignificant correlation with FibroScan score but no correlationto bilirubin, ALT, AST, or albumin. Most of Egyptianchronic liver disease patients had zinc deficiency. Zinclevel gets significantly lower with progression of fibrosis.Zinc supplementation is essential before and during antiviraltherapy for HCV.

Keywords: Serumzinc Deficiency;Liver Fibrosis;Chronic Hcv.

122. Vascular Endothelial Growth Factor Expression in Hepatitis C Virus-Induced Liver Fibrosis: A Potential Biomarker

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Journal Of Interferon & Cytokine Research, 37: 310-316 (2017) IF: 2.377

Background and Aim: The major complication of hepatitis C virus (HCV) infection is the induction of hepatic fibrosis. In this study, we investigated the correlation between the expression level of vascular endothelial growth factor (VEGFA) at mRNA and protein levels and the progression of HCV-related liver fibrosis. **Methods:**One hundred twenty subjects were selected for this study: 15 controls and 105 chronic HCV patients with different fibrosis grades (44 F0–F1 and 61 F2–F4). Quantitative real-time polymerase chain reaction (qRT-PCR) was used to measure VEGFA mRNA in peripheral blood mononuclear cells, while enzyme-linked immunosorbent assay (ELISA) was used to measure the secreted VEGFA protein in serum. Results:Both qRT-PCR and ELISA results showed that HCV patients have significantly higher VEGFA expression than that of controls (P= 0.036 and 0.043, respectively). Moreover, patients with late fibrotic stages (F2-F4) exhibited the highest levels of VEGFA mRNA and protein (P= 0.008 and 0.041, respectively) when

compared with controls. An area under the receiver operating characteristic curve (AUC of the ROC) for the circulatory VEGFA protein between HCV patients with fibrosis and healthy controls was 0.92 (P= 0.043). **Conclusion:**VEGFA protein is a promising noninvasively diagnostic biomarker for HCV-induced liver fibrosis.
Keywords: Angiogenesis; Vegfa; Hcv; Liver Fibrosis

123. Serious Adverse Events with Sofosbuvir Combined With Interferon and Ribavirin: Real-Life Egyptian Experience

Tamer Elbaz, Magdy Elserafy, Wafaa Elakel, Mohammad A. Mohey, Mahmoud Abdo, Mohamed Hassany, Mai Mehrez, Mahmoud Abouelkhair, Ayman Yosry, Ashraf Omar, Imam Waked, Manal Hamdy Elsayed, Zakaria Mahran, Yahia Elshazly, Noman Elgarem, Aly Gaballa, Wahid Doss and Gamal Esmat

Journal Of Interferon and Cytokine Research, 37: 348-353 (2017) IF: 2.377

Viral hepatitis is a serious problem worldwide that was under-recognized till recently. The prevalence of chronic hepatitis C virus (HCV) is estimated to be 180 million people worldwide. Treatment of chronic HCV using combined pegylated interferon and ribavirin (PEG/RIBA) has long been the standard of care with modest response. In our study, we will report the real-life experience of serious adverse events (SAEs) that were reported by the National Committee for Control of Viral Hepatitis (NCCVH, Cairo, Egypt) program while treating chronic HCV using the triple therapy, sofosbuvir combined with pegylated interferon and ribavirin (PEG/RIBA/SOF), which led to premature discontinuation of treatment. This retrospective analysis included a total of 6,989 chronic HCV patients who were treated by the NCCVH. They received the triple antiviral therapy in 26 treatment centers in Egypt using PEG/RIBA/SOF for 12 weeks. Among 6,989 patients who were treated in 26 treatment centers related to NCCVH, 406 cases (5.9%) reported SAEs and prematurely stopped their treatment. Triple therapy PEG/RIBA/SOF was an important intermediate milestone between interferon-based therapy and the interferon-free all-oral direct acting antiviral agents (DAAs). Results of this study were the leading cause of discontinuation of interferon-based therapy and introduction of interferon-free all-oral treatment protocols, incorporating DAAs from different classes as soon as they gain approval.
Keywords: Interferon;Hcv;Genotype 4;Serious Adverse Events;Sofosbuvir.

124. High Dose of Silymarin in Patients with Decompensated Liver Disease: A Randomized Controlled Trial

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Journal Of Interferon And Cytokines Research, 37: 480-487 (2017) IF: 2.377

Hepatitis C virus (HCV) is a major public health problem being the most common cause of chronic liver diseasein Egypt. HCV-induced decompensated liver cirrhosis patients have a median survival of 2 years even withcurrently used new treatments. Silymarin is the most commonly used herbal product in chronic liver disease forits anti-inflammatory, antiviral, antioxidant, and antifibrotic effects. The aim of this study was to assess theeffects of silymarin in high dose on the clinical and biochemical status of chronic HCV-associated decompensatedliver cirrhosis. The study was conducted on 62 chronic HCV-decompensated cirrhotic patients. Patientswere randomized according to treatment plans: group A, included 31 patients who received silymarin indose of 1,050 mg/day, and group B, included 31 patients who received silymarin in dose of 420 mg/day. Patientswere subjected to baseline history taking, laboratory evaluation, abdominal ultrasound, Child scoring, and qualityof-life (QoL) questionnaire. Follow-up was done every 2 weeks for 12 weeks. Silymarin in high dose had an effecton reducing alanine transaminase, aspartate aminotransferase levels (P £ 0.01), as well as improving albumin(P= 0.04), bilirubin (P = 0.02), and international normalized ratio (P = 0.03), thus resulted in improvement inChild score (P= 0.048), however, regular silymarin regimen (420mg/day) failed to achieve the previous biochemicalchanges. High-dose regimen of silymarin also had a positive impact on improving QoL. No seriousadverse events were reported. Silymarin in high dose is a good choice for improvement of liver biochemicalprofile and QoL in chronic HCV cirrhotic patients.
Keywords: Hcv; Silymarin; Decompensated Cirrhosis.

125. Role of Serum Soluble Cd163 in the Diagnosis, Risk of Bleeding, and Prognosis of Gastro-Esophageal Varices in Cirrhotic Patients

Rabab Fouad, Iman Hamza, Marwa Khairy, Marwa Elsharkawy and Amal A. Helmy

Journal Of Interferon and Cytokines Research, 37: 112-118 (2017) IF: 2.377

Research is continuous for noninvasive tools for the prediction of portal hypertension than upper gastrointestinalendoscopy. Serum sCD163 correlates with hepatic venous pressure gradient, aiding in the predictionof portal hypertension. We aimed at investigating the role of sCD163 in the prediction of the presence and sizeof varices as well as a stratification tool for surveillance or prophylaxis by assessment of prognosis and risk ofbleeding. Two hundred forty-three cirrhotic patients were divided into 3 groups: group I: no varices, group II:small-sized varices, and group III: medium-sized and large-sized varices. Serum sCD163 levels were assessedand correlated with abdominal ultrasound and laboratory investigations. Follow-up for 1 year was conducted toassess the risk of bleeding, and band ligation was performed for significant varices with follow-up of obliteration.sCD163 levels were significantly higher in patients with varices requiring prophylactic interventions(P = 0.03) and in large varices (P = 0.012), patients at risk of bleeding (P = 0.04), and the bleeder patients(P = 0.001). No relationship between the sCD163 levels and the rate of variceal obliteration was reported.sCD163 levels were positively correlated with the Child score (P= 0.05), the portal vein diameter (P= 0.02), andthe splenic size (P= 0.04). Although sCD163 level cannot predict the development of varices, it serves as a goodpredictor for the detection of size of varices (large varices), the need of prophylactic interventions, and risk ofvariceal bleeding. sCD163 level is a helpful indicator with the progression of cirrhosis and portal hypertension
Keywords: Scd163;Variceal Prediction;Large Varices;Risk Of Bleeding.

126. Single Nucleotide Rs760370 Polymorphism at the Main Ribavirin Transporter Gene Detection by Pcr-Rflp Assay Compared with the Taqman Assay and its Relation to Sustained Virological Response in Chronic Hcv Patients Treated with Pegylated Interferon–Ribavirin Therapy

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Journal Of Interferon and Cytokines Research, 37: 90-96 (2017) IF: 2.377

Ribavirin clearly plays a role in chronic hepatitis C treatment response. The equilibrative nucleoside transporter-1codified by SLC29A1 gene has been associated with ribavirin uptake into hepatocytes and erythrocytes.rs760370A>G single nucleotide polymorphism (SNP) at the SLC29A1 gene may have a role in ribavirin-basedregimen treatment response. Accuracy of the polymerase-chain reaction-restriction fragment length polymorphism(PCR-RFLP) assay compared with the TaqMan assay for the detection of the SNP rs760370 at the mainribavirin transporter gene and its relation to sustained virological response in chronic hepatitis C virus (HCV)patients treated with pegylated interferon–ribavirin therapy. The study included 100 chronic HCV patients whowere treated with pegylated interferon–ribavirin therapy. The patients were categorized according to the treatmentresponse into responders (50 patients) and null responders (50 patients). rs760370 SNP was measured usingTaqMan 5-nuclease assay and by the newly developed PCR-based RFLP assay. The overall accuracy of the newlydeveloped PCR-RFLP assay compared with the TaqMan assay for rs760370 polymorphism detection was 100%.Allelic frequencies at rs760370 were as follows: A/A genotype (28%), A/G genotype (58%), and G/G genotype(14%). Treatment response was not significantly related with rs760370 polymorphism (P= 0.5). Ribavirininducedanemia was good predictor of sustained virological response (P = 0.001), but was not related to rs760370polymorphism (P= 0.92). PCR-RFLP assay is an accurate, cost-effective method in the detection of rs760370compared with TaqMan assay. rs760370 SNP cannot serve as predictor of response in chronic HCV patientstreated with interferon ribavirin therapy.

Keywords: Chronic Hcv;Ribavirin;Rs760370-Svr;Pcr-Rflp Assay;Taqman Assay.

127. Impact of Old Schistosomiasis Infection on the Use of Transient Elastography (Fibroscan) for Staging of Fibrosis in Chronic Hcv Patients.

Iman Ramzy, Aisha Elsharkawy, Rabab Fouad, Hanan Abdel Hafez, Maissa El Raziky, Wafaa El Akel, Mohammad El-Sayed, Hany khattab, Mohamed Shehata, Marwa Elsharkawy, Amr Radwand and Gamal Esmata

Acta Tropica, 176: 283-287 (2017) IF: 2.218

Background and Aim: In tropical regions, Hepatitis C virus (HCV) - Schistosomiasis coinfection remains one of the health problems. With the new era of HCV treatment and the variety of methods of assessment of liver fibrosis so we aimed to evaluate the effectiveness of FibroScan for staging hepatic fibrosis in HCV-Schistosomiasis coinfected patients.**Methodology:**Three groups of patients were enrolled. Group 1: chronic HCV with out antischistosomal antibody (122 patients), Group 2: chronic HCV with positive antischistosomal antibodies and without periportal tract thickening (122 patients), Group 3: chronic HCV with positive antischistosomal antibodies and ultrasonographic picture of periportal tract thickening (108 patients). Routine laboratory workup, serum Antischistosomal antibody, and Schistosomal antigen in serum were performed. Ultrasound guided liver biopsy with histopathological examination; abdominal ultrasound and fibroscan examination were done for all patients.**Results:**The agreement between results of liver biopsy and results of fibroscan in the staging of fibrosis was the best in group 1 (55.7%), Although the agreement was higher among those with no periportal tract thickening (70.7%) and the disagreement was higher among those with positive schistosomal serology (66.5%), yet this relation was not statistically significant. Multivariate logistic regression analysis showed that disagreement is significantly associated with older age, higher BMI (≥30), and increase in anti Schistosomal antibody titer.**Conclusion:**Fibroscan is a reliable, non-invasive tool for staging hepatic fibrosis among HCV-schistosomiasis co-infected patients with no effect of the induced periportal tract thickening on the readings. Only higher antischistosomal antibody titres may cause disagreement between liver biopsy and fibroscan.

Keywords: Fibroscan;Fibrosis;Hcv;Liver Biopsy;Periportal Tract Thickening;Schistosomiasis.

128. Improvement of Glycemic State Among Responders to Sofosbuvir-Based Treatment Regimens: Single Center Experience.

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Journal Of Medical Virology, 89: 2181-2187 (2017) IF: 1.935

Chronic HCV infection has emerged as a complex multifaceted disease with manifestations extending beyond the liver. HCV plays a direct role in glucose metabolism leading to both insulin resistance and type 2 diabetes. To evaluate the changes in the glycemic state following Sofosbuvir-based treatment regimens in diabetic HCV patients. Four hundred chronic hepatitis C patients who underwent Sofosbuvir-based treatment regimens were retrospectively screened. Sixty-five diabetic HCV patients only enrolled in our analysis. Baseline demographic and laboratory data were recorded. Pretreatment Transient elastography was performed. At 24-week post EOT (SVR24), Fasting Plasma glucose, and Hemoglobin A1c were re-evaluated and compared with baseline. All enrolled diabetic patients were responders. They showed statistically significant decline in Fasting Plasma glucose and Hemoglobin A1c values at SVR24. Whatever the degree of hepatic fibrosis, the level of Fasting Plasma glucose and Hemoglobin A1c decreased at SVR24 in comparison to baseline level. Fifty-one patients showed improvement in their Hemoglobin A1c values at SVR24 and this improvement was more likely to occur among patients with low Body mass index. The reduction in Fasting Plasma glucose >20 mg/dL (>1.1 mmol/L) and Hemoglobin A1c ≥0.5% was not associated with age, gender or hepatic fibrosis stage. Sofosbuvir-based regimens are a highly efficient antiviral therapy for diabetic chronic HCV patients resulted in improvement in Fasting Plasma glucose and Hemoglobin A1c.

Keywords: Hemoglobin A1c;Chronic Hepatitis C Virus;Diabetes Mellitus;Fasting Plasma Glucose.

129. Mir-148A and Mir-30A Limit Hcv-Dependent Suppression of the Lipid Droplet Protein, Adrp, in Hcv Infected Cell Models

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Journal Of Medical Virology, 89: 653-659 (2017) IF: 1.935

Hepatitis C Virus (HCV) promotes lipid droplet (LD) formation and perturbs the expression of the LD associated PAT proteins ADRP and TIP47, to promote its own lifecycle. HCV enhances TIP47 and suppresses ADRP by displacing it from LD surface in infected cell models. We have previously shown that suppression of TIP47 by miR-148a and miR-30a decreased intracellular LDs and HCV RNA. Thus, this study aimed at examining whether this microRNA-mediated suppression of HCV would limit HCV-dependent displacement of ADRP from LDs. ADRP expression was examined in 21 HCV-infected liver biopsies and 9 healthy donor liver tissues as well as in HCV-infected Huh7 cells using qRT-PCR. miR-148a and miR-30a expression was manipulated using specific oligos in JFH-1 infected, oleic acid treated cells, to study their impact on ADRP expression using qRT-PCR, and immunofluorescence microscopy. Intracellular HCV RNA was assessed using qRT-PCR. ADRP is down regulated in patients as well as HCVcc-JFH-I infected cell models. Forcing the expression of both miRNAs induced ADRP on the mRNA and protein levels. This study shows that HCV suppresses hepatic ADRP expression in infected patients and cell lines. Forcing the expression of miR-148a and miR-30a limits the suppressive effect of HCV on ADRP.

Keywords: Micrornas;Liver;Viral Infection;Pat Proteins;Lipids.

130. Fibro Markers for Prediction of Hepatocellular Carcinoma in Egyptian Patients with Chronic Liver Disease

Lamiaa Mobarak, Dalia Omran, Mohammed M. Nabeel and Zeinab Zakaria

Journal Of Medical Virology, 89: 1062-1068 (2017) IF: 1.935

It is well known that hepatocellular carcinoma(HCC) develops as a consequence of hepaticfibrosis progression. In this study, we aimed toevaluate the inflammatory and fibrosis markersas predictors for HCC development among patientswith hepatitis C virus (HCV) relatedchronic liver disease to help in early diagnosisand management of HCC. A total of 280patients with chronic liver disease wereincluded in this retrospective study, out of them140 had liver cirrhosis with HCC and 140 hadcirrhosis without HCC. Eight readily availableblood indices King score, Fibro Q,AST-ALT ratio (AAR), APRI, LOK index, GoteborgUniversity Cirrhosis Index (GUCI), fibro alpha,and Biotechnology Research Center (BRC) wereconstructed to compare the accuracies of thesenon invasive scores in predicting HCC development.All fibrosis scores except APRI weresignificantly higher in HCC. We found that Fibroalpha and BRC had superior diagnostic performancein prediction of HCC based on area undercurve of 0.91 and 0.93, respectively compared toother scores with area under curve ranged frompoor to failure (0.59–0.66). Almost all cirrhoticcases were secondary to HCV (93.6%), whileHBV was detected in 2.1% of cases only. Anti-HCV positive was reported in 100% of HCC cases(P¼0.002). Fibro alpha and BRC scores can beused for prediction of HCC.

Keywords: Hepatocellular Carcinoma (Hcc);Chronic Liver Disease;Noninvasive Fibrosis Scores;Prediction.

131. Effect of N-Acetylcysteine on Mortality and Liver Transplantation Rate in Non-Acetaminophen-Induced Acute Liver Failure: A Multicenter Study

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Clinical Drug Investigation, 37 (2017) IF: 1.853

Introduction and Aim Previous studies and systematicreviews have not provided conclusive evidence on theeffect of N-acetylcysteine (NAC) in non-acetaminopheninducedacute liver failure (NAI-ALF). We aimed to studythe value of intravenous NAC in reducing liver transplantationand mortality in NAI-ALF.**Patients and Methods** In a prospective, multicenter,observational study, acute liver failure patients withoutclinical or historical evidence of acetaminophen overdosewere enrolled. NAC infusion (in empirical dose) was givenas 150 mg/kg in 100 ml dextrose 5% over half an hour,then 70 mg/kg in 500 ml dextrose 5% over 4 h, then70 mg/kg in 500 ml dextrose 5% over 16 h. Thereaftercontinuous infusion was administered over 24 h of150 mg/kg in 500 ml dextrose 5% until up to two consecutivenormal international normalized ratios (INRs)were obtained. Our endpoints were recovery, transplantation,or death. The primary outcome of the study was toassess reduction in mortality or liver transplantation. Thesecondary outcome was the evaluation of other clinicaloutcomes (length of ICU and hospital stays, organ systemfailure, and hepatic encephalopathy).Results The study included a total of 155 adults; the NACgroup (n = 85) were given NAC between January 2011 toDecember 2013 and the control group (n = 70) were notgiven NAC and were included from files dating between2010 and 2011. Both groups (before NAC) were comparablewith regard to etiology, age, sex, smoking, presenceof co-morbidities, encephalopathy, liver profile, and INR.The success rate (transplant-free survival) in the NACgroup was 96.4%. While in the control group, 17 patients(23.3%) recovered and 53 (76.6%) did not recover, of these37 (53.3%) had liver transplantation and 16 (23.3%) died(p\0.01). The NAC group had significantly shorter hospitalstays (p\0.001), less encephalopathy (p = 0.02),and less bleeding (p\0.01) than the control group. Thecontrol group reported a higher ICU admission (p = 0.01)rate and abnormal creatinine and electrolytes (p = 0.002,p\0.01, respectively). Liver profile and INR (after NACinfusion) differed significantly between the two groupswith regard to bilirubin (increased in controls, p = 0.02),AST and INR (decreased in NAC group, p\0.001 forboth), but the ALT decrease showed no statistical significancebetween the two groups.Conclusions When administered on admission, intravenousNAC caused a reduction in NAI-ALF mortality andneed for transplantation. NAC decreased encephalopathy,& Samar K. Darweesh hospital stay, ICU admission, and failure of other organs.

Keywords: Acute Liver Failure;N-Acetylcysteine;Liver Transplantation Free Survival;Multi-Organ Failure;Encephalopathy.

132. Validation of Hepa-Index as A Non-Invasive Biomarkers Panel for Assessment of Hepatic Fibrosis in Egyptians with Chronic Hepatitis C

Mohamed Alboraie, Kerstin Schütte, Marwa Khairy, Marwa Elsharkawy, Noha Asem, Fathy Elghamry, Helmy Shalaby, Gamal Esmat and Peter Malfertheiner

Saudi Medical Journal, 38: 1137-1141 (2017) IF: 0.709

Objectives: To validate the diagnostic performance ofHepa-Index in predicting different stages of hepaticfibrosis in Egyptian patients with chronic hepatitis C(CHC).**Methods:** Hundred treatment naïve chronic hepatitis CEgyptian patients were prospectively enrolled betweenJune 2014 and January 2015. They were subjected to:platelet count, alpha-2-macroglobulin (α2-MG), totalbilirubin, gamma glutamyl transpeptidase (GGT),total cholesterol, liver biopsy and histopathologicalstaging of hepatic fibrosis according to METAVIRscoring system. Hepa-Index was calculatedaccording to the formula: Hepa-Index=exp (-0.021x platelet +1.65 x α2-MG+0.2 x total bilirubin +0.026 x GGT -1.215 x total cholesterol) / (1+exp(-0.021 x platelet + 1.65 x α2-MG + 0.2 x totalbilirubin +0.026 x GGT -1.215 x total cholesterol).**Results:** Hepa-Index correlates positively with thestage of hepatic fibrosis. Cut off values of Hepa-Indexwere: 0.2 for predicting significant hepatic fibrosis(≥F2 METAVIR), 0.3 for severe hepatic fibrosis (≥F3METAVIR) and 0.4 for cirrhosis (F4 METAVIR).Hepa-Index was able to detect significant fibrosiswith sensitivity of 69.4%, specificity of 76.3%and AUROC of 0.803. Hepa-Index was also ableto detect severe hepatic fibrosis with sensitivity of79.2%, specificity of 64.5% and AUROC of 0.783and cirrhosis with sensitivity of 81.8%, specificity of68.5% and AUROC of 0.744.Conclusion: Hepa-Index is a good non-invasivebiomarkers panel that can be used for non-invasiveassessment of hepatic fibrosis in chronic hepatitis Cpatients.

Keywords: Hepa-Index;Hcv;Hepatic Fibrosis;Non Invasive.

133. Apri Test and Hyaluronic Acid as Non-Invasive Diagnostic Tools for Post Hcv Liver Fibrosis: Systematic Review and Meta-Analysis.

Magdy Amin El Serafy, Abdel Meguid Kassem , Heba Omar , Mohammad Shaaban Mahfouz and Maissa El Said EL Raziky

Arab Journal Of Gastroenterology, 18(2): 51-57 (2017) IF: 0.672

Background and Study Aims: Hepatitis C virus (HCV) accounts for a sizable proportion of chronic liver disease cases and represents the most common indication for liver transplantation. Precise diagnosis of hepatic fibrosis stage is considered a funnel-neck in proper management and follow-up of HCV-infected patients. Given the possible complications of liver biopsy, a non-invasive method for assessing hepatic fibrosis is needed. This study aimed to evaluate the diagnostic accuracy of APRI and hyaluronic acid as non-invasive diagnostic assessment tools for post HCV liver fibrosis.**Patients and Methods:**Systematic literature searching identified studies performed on Egyptian territory to evaluate APRI and hyaluronic acid as non-invasive tests of fibrosis and using liver biopsy as the reference standard. Meta-analysis was performed for areas with an adequate number of publications. Validation of meta- analysis on APRI was done on a subset of 150 treatment-naïve post-hepatitis C patients.**Results:**Both APRI and hyaluronic acid have superior predictive power for hepatic cirrhosis (F4) than for significant fibrosis (F2-F3). The pooled estimate for sensitivities and specificities of APRI and hyaluronic acid to diagnose F4 were (84% and 82%) and (83% and 89%) respectively. In the subgroup of treatment naïve post-hepatitis C patients, APRI had higher diagnostic performance to diagnose liver cirrhosis with 93.8% sensitivity and 72.4% specificity (AUC; 0.908, 95%CI; 0.851-0.965, p-value; <0.001) compared to its accuracy to diagnose significant hepatic fibrosis with 65.1% sensitivity and 77.8% (AUC; 0.685, 95% CI; 0.59-0.78, p-value; 0.001).**Conclusion:**APRI score and hyaluronic acid levels are simple and reliable non-invasive markers to detect advanced fibrosis among post-hepatitis C patients.

Keywords: Apri;Fibrosis Biomarkers;Hyaluronic Acid;Liver Fibrosis.

134Establishing Ultrasound Based Transient Elastography Cutoffs for Different Stages of Hepatic Fibrosis and Cirrhosis in Egyptian Chronic Hepatitis C Patients.

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Arab Journal of Gastroenterology, 18: 210-215 (2017) IF: 0.672

Background and Study Aim: Transient elastography is widely used to assess fibrosis stage in chronic hepatitis C (CHC). We aimed to establish and validate different transient elastography cut-off values for significant fibrosis and cirrhosis in CHC genotype 4 patients.**Patients and Methods:**The data of 100 treatment-naive CHC patients (training set) and 652 patients (validation set) were analysed. The patients were subjected to routine pretreatment laboratory investigations, liver biopsy and histopathological staging of hepatic fibrosis according to the METAVIR scoring system. Transient elastography was performed before and in the same week as liver biopsy using FibroScan (Echosens, Paris, France). Transient elastography results were correlated to different stages of hepatic fibrosis in both the training and validation sets.**Results:**ROC curves were constructed. In the training set, the best transient elastography cut-off values for significant hepatic fibrosis (≥F2 METAVIR), advanced hepatic fibrosis (≥F3 METAVIR) and cirrhosis (F4 METAVIR) were 7.1, 9 and 12.2 kPa, with sensitivities of 87%, 87.5% and 90.9% and specificities of 100%, 99.9% and 99.9%, respectively. The application of these cut-offs in the validation set showed sensitivities of 85.5%, 82.8% and 92% and specificities of 86%, 89.4% and 99.01% for significant hepatic fibrosis, advanced hepatic fibrosis and cirrhosis, respectively.**Conclusion:**Transient elastography performs well for significant hepatic fibrosis, advanced hepatic fibrosis and cirrhosis, with validated cut-offs of 7.1, 9 and 12.2 kPa, respectively, in genotype 4 CHC patients.

Keywords: Chronic Hepatitis C; Cirrhosis; Fibrosis; Metavir; Transient Elastography.

135. Global Prevalence And Genotype Distribution Of Hepatitis C Virus Infection In 2015: A Modelling Study

Gamal Esmat

Lancet Gastroenterology & Hepatology, 2: 161-176 (2017)

Background: The 69th World Health Assembly approved the Global Health Sector Strategy to eliminate hepatitis C virus (HCV) infection by 2030, which can become a reality with the recent launch of direct acting antiviral therapies. Reliable disease burden estimates are required for national strategies. This analysis estimates the global prevalence of viraemic HCV at the end of 2015, an update of-and expansion on-the 2014 analysis, which reported 80 million (95% CI 64-103) viraemic infections in 2013.**Methods:**We developed country-level disease burden models following a systematic review of HCV prevalence (number of studies, n=6754) and genotype (n=11 342) studies published after 2013. A Delphi process was used to gain country expert consensus and validate inputs. Published estimates alone were used for countries where expert panel meetings could not be scheduled. Global prevalence was estimated using regional averages for countries without data.**Findings:**Models were built for 100 countries, 59 of which were approved by country experts, with the remaining 41 estimated using published data alone. The remaining countries had insufficient data to create a model. The global prevalence of viraemic HCV is estimated to be 1·0% (95% uncertainty interval 0·8-1·1) in 2015, corresponding to 71·1 million (62·5-79·4) viraemic infections. Genotypes 1 and 3 were the most common cause of infections (44% and 25%, respectively).**Interpretation:**The global estimate of viraemic infections is lower than previous estimates, largely due to more recent (lower) prevalence estimates in Africa. Additionally, increased mortality due to liver-related causes and an ageing population may have contributed to a reduction in infections.
Keywords: Prevalence;Genotype;Hcv.

136. Snps in the Insulin-Like Growth Factor Gene and Obesity Impact on Colorectal Cancer in Egyptians

Yosry A1, Omran D, Yousef M, Salah M, Omar H, Hamdy S, Shaker O, Elsherif Y and Marie MS.

Asian Pacific Journal of Cancer Prevention, 18: 2959-2964 (2017)

Background and Aims: The insulin pathway may play a role in development of colorectal cancer (CRC). In this study, we investigated associations between CRC and obesity in Egyptians with reference to single nucleotide polymorphisms (SNPs) in the insulin-like growth factor-1 (IGF-I) gene. We also studied serum levels of IGF-1in Egyptian CRC patients with different BMI values.**Methods:**This prospective study included 66 CRC patients and 30 healthy individuals, for whom body mass index (BMI) was estimated, patients and controls being categorized into overweight or obese in one group and average weight in the other. Serum levels of IGF-1 were assessed by ELISA and SNPs in the IGF-I gene at rs6214C/T, rs6220 T/C and rs35767 C/T were examined by PCR- RFLP.**Results:**Serum levels of IGF-1 were significantly lower in both CRC average weight and overweight cases. IGF-1 could negatively predict CRC at a cut-off of 154 ng/ml with 87.5% sensitivity and 72.6 specificity. IGF-1 rs6214 CT and TT (T allele) genotypes were associated with a significantly increased risk of CRC. Univariate logistic regression showed that CRC risk significantly decreases by 0.14 for each one unit increase in IGF1.**Conclusion:**BMI could be considered as effect modifier for CRC risk. IGF-1 SNP rs6214 (TT and CT) are significantly associated with risk regardless of the BMI.
Keywords: Colorectal Cancer; Insulin Like Growth Factor Binding Protein; Single Nucleotide Polymorphism; Obesity.

137. Portal Vein Thrombosis in Unresectable Hcc Cases: A Single Center Study of Prognostic Factors and Management in 140 Patients

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Asian Pacific Journal Of Cancer Prevention, 18: 183-188 (2017)

Objective: Hepatocellular carcinoma with portal vein thrombosis is considered a relative contraindication for transarterial chemoembolization (TACE). The aim of our study was to evaluate the prognostic factors and management in patients with hepatocellular carcinoma with portal vein thrombosis (PVT).**Methods:**Between February 2011 and February 2015, 140 patients presented to our specialized multidisciplinary HCC clinic. All were assessed by imaging at regular intervals for tumor response and the data compared with baseline laboratory and imaging characteristics obtained before treatment.RESULTS:At the end of the follow up in February 2015, 78 (55.7%) of the 140 patients had died, 33.1% in the 1st year and 20.7% in the 2nd year. The overall median survival was 10 months from the date of diagnosis. Clinical progression was noted in 45 (32.1%). Univariate analysis revealed that, the Child-Pugh score, the performance states (Eastern Cooperative Oncology Group "ECOG" 0-1) and the presence of ascites exerted non-significant affects on survival. Similarly, the serum albumen level and AFP >400 ng/ml were without influence. However, patients with =>2 tumors, abdominal lymphadenopathy and serum bilirubin >2mg/dl had a significantly worse prognosis. Specific treatment significantly increased survival compared to patients left untreated (P value = 0.027).**Conclusion:**Application of specific treatments (curative or palliative) significantly increased survival in HCC patients with PVT. TACE can be considered as a promising procedure for unresectable PVT-associated HCCs. The main predictors of survival in our study were the serum bilirubin level and specific treatment application.
Keywords: Hepatocellular Carcinoma;Portal Vein Thrombosis;Tace;Hcc Prognosis.

138. Characteristics, Management, And Outcomes of Patients with Hepatocellular Carcinoma in Africa: A Multicountry Observational Study from the Africa Liver Cancer Consortium.

Ju Dong Yang, Essa A Mohamed, Ashraf O Abdel Aziz, Hend I Shousha, Mohamed B Hashem, Mohamed M Nabeel, Ahmed H Abdelmaksoud, Tamer M Elbaz, Mary Y Afi hene, Babatunde M Duduyemi, Joshua P Ayawin, Adam Gyedu, Marie-Jeanne Lohouès-Kouacou, Antonin W Ndjitoyap Ndam, Ehab F Moustafa, Sahar M Hassany, Abdelmajeed M Moussa, Rose A Ugiagbe, Casimir E Omuemu, Richard Anthony, Dennis Palmer, Albert F Nyanga, Abraham O Malu, Solomon Obekpa, Abdelmounem E Abdo, Awatif I Siddig, Hatim M Y Mudawi, and Gamal Esmat, et all

Lancet Gastroenterology and Hepatology, 2: 103-111 (2017)

Background: Hepatocellular carcinoma is a leading cause of cancer-related death in Africa, but there is still no comprehensive description of the current status of its epidemiology in Africa. We therefore initiated an African hepatocellular carcinoma consortium aiming to describe the clinical presentation, management, and outcomes of patients with hepatocellular carcinoma in Africa. **Methods:** We did a multicentre, multicountry, retrospective observational cohort study, inviting investigators from the African Network for Gastrointestinal and Liver Diseases to participate in the consortium to develop hepatocellular carcinoma research databases and biospecimen repositories. Participating institutions were from Cameroon, Egypt, Ethiopia, Ghana, Ivory Coast, Nigeria, Sudan, Tanzania, and Uganda. Clinical information-demographic characteristics, cause of disease, liver-related blood tests, tumour characteristics, treatments, last follow-up date, and survival status-for patients diagnosed with hepatocellular carcinoma between Aug 1, 2006, and April 1, 2016, were extracted from medical records by participating investigators. Because patients from Egypt showed differences in characteristics compared with patients from the other countries, we divided patients into two groups for analysis; Egypt versus other African countries. We undertook a multifactorial analysis using the Cox proportional hazards model to identify factors affecting survival (assessed from the time of diagnosis to last known follow-up or death).FINDINGS:We obtained information for 2566 patients at 21 tertiary referral centres (two in Egypt, nine in Nigeria, four in Ghana, and one each in the Ivory Coast, Cameroon, Sudan, Ethiopia, Tanzania, and Uganda). 1251 patients were from Egypt and 1315 were from the other African countries (491 from Ghana, 363 from Nigeria, 277 from Ivory Coast, 59 from Cameroon, 51 from Sudan, 33 from Ethiopia, 21 from Tanzania, and 20 from Uganda). The median age at which hepatocellular carcinoma was diagnosed significantly later in Egypt than the other African countries (58 years [IQR 53-63] vs 46 years [36-58]; p<0·0001). Hepatitis C virus was the leading cause of hepatocellular carcinoma in Egypt (1054 [84%] of 1251 patients), and hepatitis B virus was the leading cause in the other African countries (597 [55%] of 1082 patients). Substantially fewer patients received treatment specifically for hepatocellular carcinoma in the other African countries than in Egypt (43 [3%] of 1315 vs 956 [76%] of 1251; p<0·0001). Among patients with survival information (605 [48%] of 1251 in Egypt and 583 [44%] of 1315 in other African countries), median survival was shorter in the other African countries than in Egypt (2·5 months [95% CI 2·0-3·1] vs 10·9 months [9·6-12·0]; p<0·0001). Factors independently associated with poor survival were: being from an African countries other than Egypt (hazard ratio [HR] 1·59 [95% CI 1·13-2·20]; p=0·01), hepatic encephalopathy (2·81 [1·72-4·42]; p=0·0004), diameter of the largest tumour (1·07 per cm increase [1·04-1·11]; p<0·0001), log α-fetoprotein (1·10 per unit increase [1·02-1·20]; p=0·0188), Eastern Cooperative Oncology Group performance status 3-4 (2·92 [2·13-3·93]; p<0·0001) and no treatment (1·79 [1·44-2·22]; p<0·0001).**Interpretation:**Characteristics of hepatocellular carcinoma differ between Egypt and other African countries. The proportion of patients receiving specific treatment in other African countries was low and their outcomes were extremely poor. Urgent efforts are needed to develop health policy strategies to decrease the burden of hepatocellular carcinoma in Africa.

Keywords: Hepatocellular Carcinoma;Africa;African Liver Consortium.

139. Transarterial Chemoembolization Combined with Either Radiofrequency or Microwave Ablation in Management of Hepatocellular Carcinoma

Ashraf Omar Abdelaziz , Ahmed Hosni Abdelmaksoud , Mohamed Mahmoud Nabeel , Hend Ibrahim Shousha, Ahmed Abdelmonem Cordie , Sherif Hamdy Mahmoud , Eman Medhat , Dalia Omran and Tamer Mahmoud Elbaz

Asian Pacific Journal Of Cancer Prevention, 18: 189-194 (2017)

Introduction: Local ablative therapy and trans arterial chemoembolization (TACE) are applied to ablate non resectable hepatocellular carcinoma (HCC). Combination of both techniques has proven to be more effective. We aimed to study combined ablation techniques and assess survival benefit comparing TACE with radiofrequency (RFA) versus TACE with microwave (MWA) techniques.METHODS:We retrospectively studied 22 patients who were ablated using TACE-RFA and 45 with TACE-MWA. All were classified as Child A-B and lesions did not exceed 5 cm in diameter. TACE was followed within two weeks by either RFA or MWA. We recorded total and partial ablation rates and complication rates. Survival analysis was then performed.**Results:**TACE-MWA showed a higher tendency to provide complete response rates than TACE-RFA (P 0.06). This was particularly evident with lesions sized 3-5 cm (P 0.01). Rates of complications showed no significant difference between the groups. Overall median survival was 27 months. The overall actuarial probability of survival was 80.1% at 1 year, 55% at 2 years, and 36.3% at 3 years. The recurrence free survival at 1 year, 2years and 3 years for the TACE-RFA group was 70%, 42% and 14% respectively and for TACE-MWA group 81.2%, 65.1% and 65.1% without any significant difference (P 0.1). In relation to the size of focal lesions, no statistically significant difference in the survival rates was detected between the groups.**Conclusion:**TACE-MWA led to better response rates than TACE-RFA with tumors 3-5 cm, with no difference in survival rates.

Keywords: Hepatocellular Carcinoma;Microwave Ablation;Radiofrequency Ablation.

Dept. of Forensic & Toxicology

140. Synthesis and Characterizations of Magnetite Nanocomposite Films for Radiation Shielding

Sayed M. Badawy and A.A. Abd El-Latif

Polymer Composites, 38: 974-980 (2017) IF: 2.324

Polyvinyl alcohol (PVA) films containing magnetite Fe3O4nanoparticles have been prepared by co-precipitationmethod for use in gamma ray shielding and protection.Characterizations of the magnetite/PVA nanocompositefilms were investigated by X-ray diffraction (XRD), transmissionelectron microscopy (TEM), UV–vis spectroscopy,and magnetization measurements. TEM imagesshowed that the synthesized magnetite particles hadabout 6–11nm dimensions. Optical study's resultsrevealed that the optical energy band gaps of thin filmsrange between 1.82 and 2.81 eV at room temperatureusing UV–visible absorption spectroscopy. The saturationmagnetization (MS) value measured by vibratingsample magnetometer VSM was found to be 8.1 emu/gwith superparamagnetic nature. The radiation shieldingproperties such as linear attenuation coefficients (l)and half-value thickness (HVT) for the magnetite nanocompositefilms have been obtained experimentally fordifferent photon energies. The results imply that thesenanocomposites films are promising radiation shieldingmaterials.

Keywords: Magnetite;Nanocomposite;Radiation Shielding.

141. Functional Cellulosic Filter Papers Prepared by Radiation-Induced Graft Copolymerization for Chelation of Rare Earth Elements

Sayed M. Badawy

Cellulose Chemistry And Technology, 51 (2017) IF: 0.763

Functional cellulosic filter papers containing chelating groups were developed by radiation-induced graftcopolymerization of acrylonitrile onto cellulosic filter paper, followed by the amidoximation reaction for chelation ofrare earth elements (REEs). The obtained functional filter papers were characterized by Fourier transform infraredanalysis (FTIR), X-ray diffraction (XRD), scanning electron microscopy (SEM) and thermogravimetric analysis(TGA). The presence of the functional groups was proven by FTIR spectra analysis. XRD and SEM showed that thegrafting process did not break down the orientation and crystallinity of the fibers. TGA indicated the thermal stabilityof the functional filter paper at temperatures below 200 °C. The functional filter papers were investigated for thechelation of rare earth elements from the monazite mineral prior to qualitative determination by wavelength dispersiveX-ray fluorescence (XRF) via characteristic L X-ray lines

Keywords: Functional Filter Paper;Radiation;Graft Copolymerization;Chelation;X-Ray Fluorescence.

142. Identification of Sex and Age for Egyptians Using Computed Tomography of the First Lumbar Vertebra

Nazih Ramadan , Mervat Hamdy Abd El-Salam, Amani Fahmy Hanon, Naglaa Farid El-Sayed and Ahmed Yosri Al-Amir

Egyptian Journal of Forensic Sciences, 7 (2017)

Background: Identification of bony remains and other decomposed parts of human is of great importance notonly for legal but also for humanitarian reasons. However, in certain instances due to burial factors or in cases ofexplosion disasters, many of large bones may be destroyed or incomplete. For age and sex identification, vertebraearen't well studied; however, many vertebrae showed high accuracy rates for sex identification.**Methodology:** One hundred and twenty-three Egyptian patients were included in the current study; 62 werefemales and 61 were males (age from 10 to 64 years). Abdominal Computer tomography (CT) scans were done forthose patients in the Department of Radiology in kasralainy faculty of medicine, Cairo University after they gaveinformed consent. Fifteen linear measurements were taken for the first lumbar vertebra (L1) to assess age and sex.**Results:** Male patients showed larger mean values most of measurements of the first lumbar vertebra than femalesand sex was determined at accuracy rate of 84.6%. Moreover, significant correlation was found for age and majorityof measurements; but unfortunately it was weak correlation.**Conclusion:** Sex can be estimated from first lumbar vertebrae with reasonable levels of accuracy in legal andhumanitarian situations when skeletal remains are incomplete. However, it seems that vertebral measurements oflumbar vertebra aren't useful indicator for age estimation with further studies needed on larger samples and ondifferent age groups.

Keywords: Age;Sex;Egyptians;Computed Tomography;Lumbar Vertebrae.

143. A Rapid and Simple Procedure for Monitoring Valproic Acid by Gas Chromatography

Mohamed Said Mostafa, Hazem Salaheldin Elshafie and Sherein Ghaleb

Journal Of Biological Research, 90: 1-18 (2017)

Valproic acid (VPA), a widely used antiepileptic drug, has anarrow therapeutic range of 50-100 µg/mL and shows large individualvariability. It is very important to monitor the trough VPAconcentration using a reliable method. The aim of this study wasto develop and validate a rapid gas chromatographic (GC) techniquefor VPA quantification in human plasma and to compare itwith the traditional immunoassay method. VPA extraction fromhuman serum was efficient by dichloromethane and hydrochloric acid using octanoic acid as an internal standard. GC analysis wasperformed using a gas-chromatograph equipped with a flame ionizationdetector (GC/FID). VPA detection and quantification wereaccomplished isothermally at 135°C on a Gs-BP 100%dimethylpolysiloxane capillary column (10 m×0.53 mm ID, 2.65µm film thickness, Supelco, Bellefonte, PA). Injection port anddetector temperature were 280°C. Retention times of VPA andinternal standard were 1.83 min and 2.33 min, respectively. Thecalibration curve was linear over the concentration range of 5-320µg/mL, with a lower limit of detection of 1.25 µg/mL. The internaland inter-day precision was

less than 5.3% and 6.1%, respectively,and the accuracy was below 2.8%. VPA recovery was 94.6%. Aquick and accurate method for VPA determination in human plasmawas developed and validated. It resulted sufficiently selectiveand sensitive.
Keywords: Valproic Acid;Human Plasma;Immunoassay;Gas Chromatography.

Dept. of Histology

144. Genetic Ablation of the Mammalian Sterile-20 Like Kinase 1 (Mst1) Improves Cell Reprogramming Efficiency and Increases Induced Pluripotent Stem Cell Proliferation and Survival

Abigail Robertson , Tamer M.A. Mohamed , Zeinab El Maadawi, Nicholas Stafford , Thuy Buy , Dae-Sik Lim, Elizabeth J. Cartwright and Delvac Oceandy

Stem Cell Research, 20: 42-49 (2017) IF: 3.963

Adult fibroblasts can be reprogrammed into induced pluripotent stem cells (iPSC) for use in various applications. However, there are challenges in iPSC generation including low reprogramming efficiency, yield, cell survival and viability. Since the Hippo signalling pathway is a key pathway involved in regulating cell proliferation and survival, we here test whether modification of the Hippo pathway will enhance the efficiency of iPSC generation and improve their survival.The Hippo pathway was modified by genetic ablation of the mammalian sterile-20 like kinase 1 (Mst1), a major component of the pathway. Using adult skin fibroblasts isolated from Mst1 knockout mice (Mst1−/−) as a source of iPSC we found that genetic ablation of Mst1 leads to significantly increased reprogramming efficiency by 43.8%. Moreover, Mst1−/− iPSC displayed increase proliferation by 12% as well as an increase in cell viability by 20% when treated with a chemical hypoxic inducer. Mechanistically, we found higher activity of YAP, the main downstream effector of the Hippo pathway, in iPSC lacking Mst1.In conclusion, our data suggests that Mst1 can be targeted to improve the efficiency of adult somatic cell reprogramming as well as to enhance iPSC proliferation and survival.
Keywords: Hippo Pathway;Reprogramming;Ipsc;Mst1;Cell Proliferation.

145. Enhancement of Neural Regeneration After Spinal Cord Injury Using Muscle Graft in Experimental Dogs

Mohamed M Refaat, Maha Baligh Zickri, Amal Elham Fares, Hala Gabr, Shaimaa Ibrahim El-Jaafary, Bassem Essam Mahmoud, Mostafa Abdallah Madbouly, Mohamed Abdelfadel Abdelfadel, Ali Mohamed Hammad and Haithem AM Farghali

International Journal Of Clinical And Experimental Pathology, 10(9): 9330-9340 (2017) IF: 1.706

Aims: Spinal cord injuries (SCIs) can cause severe disability or death. The principal treatments for traumatic SCI include surgical stabilization and decompression. Using muscle as a scaffold is a new approach. The aim of this work is to evaluate the clinical efficacy of muscle graft as a scaffold for the growing axons organizing their growth, preventing gliosis in the damaged area and enhancing neural recovery in canine model of traumatic spinal cord injury. Methods: 14 dogs were divided into group I (Control group) 4 control dogs subjected to Sham operation, group II (Trauma control group) 5 dogs subjected to dorsal laminectomy with excision of 1 cm segment of the spinal cord and group III (Muscle graft group) 5 dogs subjected to dorsal laminectomy then muscle graft was taken from the longissimus thoraces and inserted into the spinal cord gap. The animals of all groups were euthanatized after 8 weeks. Olby and modified Tarlov scores were used to clinically evaluate the therapeutic effects. Spinal cord specimens were subjected to histological, morphometric and statistical studies. **Results:** Olby and modified Tarlov scores revealed significant clinical improvement in the muscle graft group. Histological sections showed overgrowth of axons on the muscle graft and the sections started to organize as central gray matter and peripheral white matter. CD44 & CD105 stains were positive for endogenous stem cells. Conclusions: This study proved the clinical efficacy of muscle grafting as a tool for induction of neuroregeneration after traumatic spinal cord injury.
Keywords: Spinal Cord;Dorsal Laminectomy;Muscle Graft;Stem Cells.

146. Conditioned Medium Derived from Salidroside-Pretreated Mesenchymal Stem Cell Culture Ameliorates Mouse Lipopolysaccharide-Induced Cerebral Neuroinflammation-Histological and Immunohistochemical Study

Zeinab M. El Maadawi

International Journal Of Stem Cells, 10: 60-68 (2017)

Background and Objectives: Neuroinflammation is involved in the pathogenesis of neurodegenerative disorders. Conditioned medium (CM) derived from bone marrow mesenchymal stem cells (MSCs) revealed substantial benefits due to its rich content of trophic factors. Salidroside (Sal), extracted from Rhodiola rosea, is known for its anti-inflammatory and neuroprotective effects. This study was designed to investigate the effect of Sal pretreated CM (CM-Sal) derived from bone marrow MSCs in lipopolysaccharide (LPS) induced neuroinflammation.Material and Methods:Fifty adult male mice were equally divided into 5 groups: Group I (Normal Control), Group II (LPS): single 0.8 mg/kg LPS intraperitoneally; Group III (LPS-DMEM), Group IV (LPS-CM) and Group V (LPS-CM-Sal): LPS was injected as group II followed, 24 hours later, by intranasal injection of 50 µl of filtered serum-free Dulbecco's Modified Eagle's medium (DMEM), CM or CM-Sal, respectively, twice daily for 4 days. Animals were sacrificed at day 6 and paraffin cerebral sections were subjected to Hematoxylin and Eosin staining and immunohistochemistry with caspase 3 (apoptosis), glial fibrillary acidic protein GFAP (astrocytes) and CD68 (active microglia) followed by quantitative morphometric study.**Results:** Examination of LPS and LPS-DMEM groups revealed neuronal apoptosis with reactive astrogliosis and increased active microglia. LPS-CM and LPS-CM-Sal groups showed less apoptosis, less astrocytes and less active microglia. The regression in neuroinflammation was more evident in LPS-CM-Sal group and the difference was statistically significant compared to other groups.**Conclusion:** CM-Sal derived from MSCs culture elicited significant histopathological improvement in LPS induced neuroinflammation which could be used as new therapeutic modality.
Keywords: Mesenchymal Stem Cells;Conditioned Medium;Salidroside;Neuroinflammation.

Dept. of Internal Medicine

147. Evidence-Based Recommendations on the Management of Extrahepatic Manifestations of Chronic Hepatitis C Virus Infection

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Journal of Hepatology, 66: 1282-1299 (2017) IF: 12.486

The hepatitis C virus (HCV), a linear, single-stranded RNA virus identified in 1989, is a hepatotropic virus that causes liver cirrhosis and hepatocellular cancer and is a global health problem. It is recognized as one of the hepatic viruses most often associated with the development of extrahepatic manifestations (EHMs), which can be classified according to the principal underlying etiopathogenic process (autoimmune, inflammatory, metabolic or neoplastic) [1]. HCV infected patients with extrahepatic involvement require a multidisciplinary approach and a complex therapeutic management.

Keywords: Hepatitis C Virus;Extrahepatic Manifestations; Daas; Rituximab.

148. eal Time Endoscopic Ultrasound Elastography and Strain Ratio in The Diagnosis of Solid Pancreatic Lesions

Hussein Okasha, Shaimaa Elkholy, Ramy El-Sayed, Mohamed-Naguib Wifi, Mohamed El-Nady, Walid El-Nabawi, Waleed A El-Dayem, Mohamed I Radwan, Ali Farag, Yahya El-sherif, Emad Al-Gemeie, Ahmed Salman, Mohamed El-Sherbiny, Ahmed El-Mazny and Reem E Mahdy

World Journal Of Gastroenterology, 23: 5962-5968 (2017) IF: 3.565

AIM: To evaluate the accuracy of the elastography score combined to the strain ratio in the diagnosis of solid pancreatic lesions (SPL).**Methods:** A total of 172 patients with SPL identified by endoscopic ultrasound were enrolled in the study to evaluatethe efficacy of elastography and strain ratio in differentiating malignant from benign lesions. The semi quantitative score of elastography was represented bythe strain ratio method. Two areas were selected, area (A) representing the region of interest and area (B) representing the normal area. Area (B) was then dividedby area (A). Sensitivity, specificity, positive predictive value (PPV), negative predictive value (NPV), and accuracy were calculated by comparing diagnoses madeby elastography, strain ratio and final diagnoses.**Results:**SPL were shown to be benign in 49 patients and malignant in 123 patients. Elastography alone hada sensitivity of 99%, a specificity of 63%, and anaccuracy of 88%, a PPV of 87% and an NPV of 96%.The best cut-off level of strain ratio to obtain the maximal area under the curve was 7.8 with a sensitivity of 92%, specificity of 77%, PPV of 91%, NPV of 80% and an accuracy of 88%. Another estimated cut off strain ratio level of 3.8 had a higher sensitivity of 99% and NPV of 96%, but with less specificity, PPV and accuracy 53%, 84% and 86%, respectively. Adding both elastography to strain ratio resulted in a sensitivity of 98%, specificity of 77%, PPV of 91%, NPV of 95%and accuracy of 92% for the diagnosis of SPL.**Conclusion:** Combining elastography to strain ratio increases the accuracy of the differentiation of benign from malignant SPL.

Keywords: Endoscopic Ultrasound;Elastography;Strain Ratio; Real Time;Pancreatic Lesions.

149. Gout: an Old Disease in New Perspective – A Review

Gaafar Ragab, Mohsen Elshahaly andThomas Bardin

Journal Of Advanced Research, 8: 495-511 (2017) IF: 3

Gout is a picturesque presentation of uric acid disturbance. It is the most well understood and described type of arthritis. Its epidemiology is studied. New insights into the pathophysiology of hyperuricemia and gouty arthritis; acute and chronic allow for an even better understanding of the disease. The role of genetic predisposition is becoming more evident. The clinical picture of gout is divided into asymptomatic hyperuricemia, acute gouty arthritis, intercritical period, and chronic tophaceous gout. Diagnosis is based on laboratory and radiological features. The gold standard of diagnosis is identification of characteristic MSU crystals in the synovial fluid using polarized light microscopy. Imaging modalities include conventional radiography, ultrasonography, conventional CT, Dual-Energy CT, Magnetic Resonance Imaging, nuclear scintigraphy, and positron emission tomography. There is remarkable progress in the application of ultrasonography and Dual-Energy CT which is bound to influence the diagnosis, staging, follow-up, and clinical research in the field. Management of gout includes management of flares, chronic gout and prevention of flares, as well as management of comorbidities. Newer drugs in the pharmacological armamentarium are proving successful and supplement older ones. Other important points in its management include patient education, diet and life style changes, as well as cessation of hyperuricemic drugs.

Keywords: Hyperuricemia;Gout;Pathogenesis;Clinical Picture of Gout;Imaging Modalities;Management Of Gout.

150. Vasculitic Syndromes in Hepatitis C Virus: A Review

Gaafar Ragab and Mohamed A. Hussein

Journal Of Advanced Research, 8: 99-111 (2017) IF: 3

Vasculitis is a remarkable presentation of the extrahepatic manifestations of HCV. According tothe presence or absence of cryoglobulins it is subdivided into two main types: cryoglobulinemicvasculitis and non cryoglobulinemic vasculitis based on the attribution of vasculitis to serumcryoglobulins as a pathogenic factor. The attribution of cryoglobulinemia to HCV representsa success story in the history of immunology, microbiology, and clinical medicine. HCV canbind to and invade lymphocytes, consequently triggering an immune response through different mechanisms. The epidemiology of the disease is well described and the clinical picture describescutaneous, pulmonary, musculoskeletal, neurological, renal, endocrine, gastrointestinal, hepaticand cardiovascular manifestations. It may also be associated with sicca symptoms, an increasedrisk of lymphoma and serious catastrophic events. The pathology is well

characterized. A classification criteria of the syndrome that was validated in 2014 is discussed. Management of CV is decided according to the presence and severity of its clinical presentation. It is divided intoasymptomatic, mild, moderate, severe and life threatening disease. Recently introduced directantiviral agents are proving safe and effective in the management of cryoglobulinemic vasculitis,and it is advocated that the two types of vasculitis be given prioritization in the Egyptian masscampaign to eradicate HCV.

Keywords: Hepatitis C Virus Extrahepatic Manifestations Vasculitis Cryoglobulins Direct Acting Anti-Hcv Drugs.

151. Hepatitis C and Kidney Disease: A Narrative Review

Rashad S. Barsoum, Emad A. William and Soha S. Khalil

Journal Of Advanced Research, 8: 113-132 (2017) IF: 3

Hepatitis-C (HCV) infection can induce kidney injury, mostly due to the formation of immune- complexes and cryoglobulins, and possibly to a direct cytopathic effect. It may cause acute kidney injury (AKI) as a part of systemic vasculitis, and augments the risk of AKI due to other etiologies. It is responsible for mesangiocapillary or membranous glomerulonephritis and accelerates the progression of chronic kidney disease due to other causes. HCV infection increases cardiovascular and liver-related mortality in patients on regular dialysis. HCV-infected patients are at increased risk of acute post-transplant complications. Long-term graft survival is compromised by recurrent or de novo glomerulonephritis, or chronic transplant glomerulopathy. Patient survival is challenged by an increased incidence of diabetes, sepsis, post-transplant lymphoproliferative disease, and liver failure. Effective and safe directly acting antiviral agents (DAAs) are currently available for treatment at different stages of kidney disease. However, the relative shortage of DAAs in countries where HCV is highly endemic imposes a need for treatment-prioritization, for which a scoring system is proposed in this review. It is concluded that the thoughtful use of DAAs, will result in a significant change in the epidemiology and clinical profiles of kidney disease, as well as improvement of dialysis and transplant outcomes, in endemic areas.

Keywords: Acute Kidney Injury;Chronic Kidney Disease;Glomerulonephritis;Dialysis;Renal Transplantation; Direct-Acting Antivirals.

152. Role of Endoscopic Ultrasound and Endoscopicultrasound- Guided Fine-Needle Aspiration in Endoscopic Biopsy Negative Gastrointestinal Lesions

Hussein Hassan Okasha, Mohamed Naguib, Mohamed El Nady, Reem Ezzat, Emad Al-Gemeie, Waleed Al-Nabawy, Wael Aref, Ahmed Abdel-Moaty, Karim Essam and Ahmed Hamdy

Endoscopic Ultrasound, 6 (3): 156-161 (2017) IF: 2.728

Background and Objectives: Many cases of gastrointestinal (GI) tumors as lymphoma, adenocarcinoma, and most of submucosal tumors (SMT) such as gastrointestinal stromal tumor (GIST) and leiomyoma are difficult to diagnose as they frequently yield negative endoscopic biopsies. We evaluated the accuracy of endoscopic ultrasound (EUS) and EUS-guided fine-needle aspiration (EUS-FNA) in the diagnosis of endoscopic biopsy negative GI tumors. Patients and Methods: One hundred and nine patients with biopsy negative GI tumors were included in this prospective study. EUS and EUS-FNA were performed to all patients with cytopathologic examination. **Results:** There were 109 patients with endoscopic biopsy negative GI lesions, including 61 males (56%) and 48 females (44%), with the mean age of 54 years. Sixty-three cases (57.8%) were proved to have malignant lesions, among them there were 15 cases with high-risk GIST as proved by FNA and excision biopsy. Forty-six cases (42.2%) were proved to be benign; among them there were 21 cases presented with non-high-risk GIST. Endoscopic ultrasound had a sensitivity of 96.8%, specificity of 89.1%, positive predictive value (PPV) of 92.4%, negative predictive value (NPV) of 95.3%, and accuracy of 93.6%. EUS-FNA had a sensitivity of 87.3%, specificity of 100%, PPV of 100%, NPV of 85.2%, and accuracy of 92.7%. **Conclusion:** EUS with EUS-FNA is an accurate procedure in the diagnosis of GI tumors with negative endoscopic biopsies.

Keywords: Biopsy Negative;Endoscopic-Ultrasound-Guided Fine-Needle Aspiration (Eus-Fna);Submucosal Lesions.

153. Pulmonary Manifestations in A Group of Patients with Behcet''s Disease

Amr Edrees,Sherif Naguib, Manal El Menyawi,Ihab Ismail and Hamdy Nagah

Inernational Journal Of Rheumatic Diseases, 20: 269-275 (2017) IF: 2.624

In this study we investigated the frequency and characteristics of pulmonary manifestations in a group of patients with Behcet's disease (BD) who were admitted to Cairo University Hospital.Fifteen patients were included in our study, 14 men (93.3%) and one woman (6.66%).Their mean age was 30.06 ± 9.8 years and the mean age of onset of BD was 23.7 ± 5.54 years. ResultsPulmonary involvements were detected in 11 patients with BD, 73.3% of cases: 10 men (90.9%) and one woman (9.09%).Their mean age was 28.8 ± 8.07, the mean age of onset of BD was 23.2 ± 5.59 years and the mean disease duration until lung manifestations appear was 3.7 ± 4.8 years. The main pulmonary and constitutional symptoms in these 11 patients were as follows: dyspnea 81.8%, cough 63.6%, weight loss 63.6%, chest tightness 54.5%, hemoptysis 45%, massive hemoptysis 27.2%, fever 36.3% and expectoration 36.3. Analysis of both vascular and parenchymal lung lesions in helical CT scan in the 11 patients with BD were as follows: pulmonary artery aneurysm (PAA) occurred in 5/11 patients (45.4%), pulmonary nodules occurred in 3/11 patients (27.2%), pleural effusion occurred in 3/11 patients (27.2%), pulmonary embolism and infarction occurred in 1/11 patients (9.09%) and pneumonitis occurred in 1/11 patients (9.09%).

Keywords: Clinical Vasculitidis;Vasculitis.

154. Burden and Outcome of Vitamin D Deficiency Among Critically Ill Patients: A Prospective Study

Enas Anwar, Gehan Hamdy, Eman Taher, Esmat Fawzy, Sherif Abdulattif and Mohamed H. Attia

Nutrition In Clinical Practice, 32 Number 3: 378-384 (2017) IF: 2.468

Background: Vitamin D deficiency is a prevalent condition among critically ill patients. Information about the relationship between vitamin D levels and outcomes in the intensive care unit (ICU) is sparse. **Purpose:** To evaluate vitamin D status among critically ill patients and its relevance to severity of illness, ICU stay period, and mortality. **Methods:** This prospective multicenter study was conducted in the ICUs of Fayoum, Cairo, Alazhar, and Ain Shams university hospitals. All patients were subjected to interview questionnaire, laboratoryinvestigation, vitamin D level assessment, and severity of illness evaluation using the Acute Physiologic Assessment and Chronic Health Evaluation II (APACHE II) score. **Results:** In total, 250 patients were included in the study. The median age was 62 (40–73) years, and most patients were male (52%). The median serum level of vitamin D was 19 (7–40.6). Vitamin D was deficient in 197 patients (78.8%) on admission. While we grouped the ICU patients as vitamin D deficient, insufficient, and sufficient, vitamin D–deficient patients had more severe diseases (mean APACHE II score, 44 ± 15; P = .014). Prolonged ICU stay was observed among the deficient group but with no significant association. The overall mortality rate was 6.8%; of these, 70.5% were vitamin D–deficient patients. However, logistic regression analysis demonstrated that vitamin D deficiency was not an independent risk factor for mortality. **Conclusion:** Vitamin D insufficiency is common in critically ill patients (69%); it is associated with more severity of illness, but it is not an independent risk factor for longer ICU stay or mortality. (Nutr Clin Pract.2017;32:378-384)

Keywords: Vitamin D;Mortality;Hospital Stay Period;Critically Ill Patients;Vitamin D Deficiency;Critical Illness;Length of Stay;Intensive Care Units.

155. Retrospective Analysis of Nephritis Response and Renal Outcome in A Cohort of 928 Egyptian Lupus Nephritis Patients: A University Hospital Experience.

M Momtaz, A Fayed, M Wadie, SM Gamal, SA Ghoniem, N Sobhy, NM Kamal Elden and WM Hamza

Lupus, 26(14): 1564-1570 (2017) IF: 2.454

Aim: We aim to describe the pattern of response to treatment in a cohort of Egyptian lupus nephritis (LN) patients and to define variable prognostic factors. Methods We retrospectively analyzed records of 928 systemic lupus erythematosus (SLE) patients (898 females, 30 males) with biopsy-confirmed LN seen between 2006 and 2012 at Cairo University hospitals. Results Our study involved 928 SLE patients with a mean age of 26.25 ± 6.487 years, mean LN duration at time of renal biopsy 6.48 ± 4.27 months, mean SLEDAI 28.22 ± 11.7, and mean follow-up duration of 44.14 ± 17.34 months. Induction treatment achieved remission in 683 patients. Remission was achieved in all 32 patients with class II LN, compared to 651/896 (72.7%) patients in classes III, IV, and V. Induction by intravenous (IV) cyclophosphamide achieved response in 435/575 (75.7%) patients, while induction by mycophenolate mofetil (MMF) resulted in response in 216/321 (67.3%) patients ($p = 0.0068$). Nephritic flares were least observed when MMF was used for maintenance (30/239 (12.6%) patients), compared to 71/365 patients (19.5%) ($p = 0.0266$) when azathioprine (AZA) was used, and 22/79 patients (27.8%) ($p = 0.002$) with IV cyclophosphamide. Class IV LN, high chronicity index, presence of crescents, and interstitial fibrosis in biopsies were all associated with chronic kidney disease (CKD) development eventually ($p < 0.001$, $p = 0.005$, $p = 0.012$, and $p = 0.031$, respectively). By the end of the study duration, 305 (32.7%) patients had CKD. Logistic regression detected that high baseline serum creatinine, failure to achieve remission, hypertension, and nephritic flare were the main risk factors for poor renal outcome ($p < 0.001$, $p < 0.001$, $p = 0.004$, and $p < 0.001$, respectively). The 5 years' mortality was 69 (7.4%) patients with sepsis being the main cause of death. Conclusion IV cyclophosphamide superseded as induction treatment, while MMF was the best maintenance treatment. High serum creatinine, hypertension, and nephritic flare were the main risk factors for poor renal outcome.

Keywords: Systemic Lupus Erythematosus;Lupus Nephritis;Cyclophosphamide;Mycophenolate Mofetil;Azathioprine;Renal Outcomes;Egyptian Patients.

156. Latitude Gradient Influences the Age of Onset of Rheumatoid Arthritis: A Worldwide Survey

GEO-RA Group

Clinical Rheumatology, 36: 485-497 (2017) IF: 2.365

The age of onset of rheumatoid arthritis (RA) is an important outcome predictor. Northern countries report an age of RA onset of around 50 years, but apparently, variability exists across different geographical regions. The objective of the present study is to assess whether the age of onset of RA varies across latitudes worldwide. In a proof-of-concept cross-sectional worldwide survey, rheumatologists from preselected cities interviewed 20 consecutive RA patients regarding the date of RA onset (RAO, when the patient first noted a swollen joint). Other studied variables included location of each city, rheumatologist settings, latitudes (10° increments, south to north), longitudes (three regions), intracountry consistency, and countries' Inequality-adjusted Human Development Index (IHDI). Data from 2481 patients (82% females) were obtained from 126 rheumatologists in 77 cities of 41 countries. Worldwide mean age of RAO was 44 ± 14 years (95% CI 44–45). In 28% of patients, RA began before age 36 years and before age 46 years in 50% of patients. RAO was 8 years earlier around the Tropic of Cancer when compared with northern latitudes ($p < 0.001$, 95% CI 3.5–13). Multivariate analysis showed that females, western cities, and latitudes around the Tropic of Cancer are associated with younger age of RAO (R 2 0.045, $p < 0.001$). A positive correlation was found between the age of RAO and IHDI ($r = 0.7$, $p < 0.01$, R 2 0.5). RA often begins at an early age and onset varies across latitudes worldwide. We postulate that countries' developmental status and their geographical and geomagnetic location influence the age of RAO.

Keywords: Age Of Onset;Environmental;Geoepidemiology;Inequality;Pollution;Rheumatoid Arthritis.

157. Asian-Pacific Association for the Study of the Liver (Apasl) Consensus Guidelines on Invasive and Non-Invasive Assessment of Hepatic Fibrosis: A 2016 Update

Shiha G, Ibrahim A, Helmy A, Sarin SK, Omata M, Kumar A, Bernstien D, Maruyama H, Saraswat V, Chawla Y, Hamid S, Abbas Z, Bedossa P, Sakhuja P, Elmahatab M, Lim SG, Lesmana L, Sollano J, Jia JD, Abbas B, Omar A, Sharma B, Payawal D, Abdallah A, Serwah Hamed A, Elsayed A, AbdelMaqsod A, Hassanein T, Ihab A, GHaziuan H, Zein N, Kumar M5.

Hepatology International, 11(1): 1-30 (2017) IF: 2.164

Hepatic fibrosis is a common pathway leading to liver cirrhosis, which is the end result of any injury to the liver. Accurate assessment of the degree of fibrosis is important clinically, especially when treatments aimed at reversing fibrosis are being evolved. Despite the fact that liver biopsy (LB) has been considered the "gold standard" of assessment of hepatic fibrosis, LB is not favored by patients or physicians owing to its invasiveness, limitations, sampling errors, etc. Therefore, many alternative approaches to assess liver fibrosis are gaining more popularity and have assumed great importance, and many data on such approaches are being generated. The Asian Pacific Association for the Study of the Liver (APASL) set up a working party on liver fibrosis in 2007, with a mandate to develop consensus guidelines on various aspects of liver fibrosis relevant to disease patterns and clinical practice in the Asia-Pacific region. The first consensus guidelines of the APASL recommendations on hepatic fibrosis were published in 2009. Due to advances in the field, we present herein the APASL 2016 updated version on invasive and non-invasive assessment of hepatic fibrosis. The process for the development of these consensus guidelines involved review of all available published literature by a core group of experts who subsequently proposed consensus statements followed by discussion of the contentious issues and unanimous approval of the consensus statements. The Oxford System of the evidence-based approach was adopted for developing the consensus statements using the level of evidence from one (highest) to five (lowest) and grade of recommendation from A (strongest) to D (weakest). The topics covered in the guidelines include invasive methods (LB and hepatic venous pressure gradient measurements), blood tests, conventional radiological methods, elastography techniques and cost-effectiveness of hepatic fibrosis assessment methods, in addition to fibrosis assessment in special and rare situations.

Keywords: Liver Fibrosis Invasive Assessment;Non-Invasive Assessment Cirrhosis Hepatitis C Hepatitis B Chronic Liver Disease Non-Alcoholic Steatohepatitis Graft Fibrosis.

158.Critical Flicker Frequency is Diagnostic of Minimal Hepatic Encephalopathy

Serag Esmat, Nouman El Garem, Hassan Raslan, Mohamed Elfekki andGihan A Sleem

Journal of Investigative Medicine, 65: 1131-1135 (2017) IF: 1.943

Minimal hepatic encephalopathy may affect up to 80% of cirrhotic patients, in the absence of overt hepatic encephalopathy. The objective of the study is to evaluate the accuracy of diagnosis of minimal hepatic encephalopathy with critical flicker frequency (CFF). The study was conducted on 180 patients with post hepatitis C liver cirrhosis and on 60 healthy subjects as control. Patients and controls were divided into four groups: group 1 (60), healthy individuals as a control group; group 2 (60), patients with liver cirrhosis (Child class A); group 3 (60), patients with liver cirrhosis (Child class B); and group 4 (60), patients with liver cirrhosis (Child class C). All participants were subjected to estimation of CFF, line drawing test, complete blood picture, liver functions, viral markers, and abdominal ultrasound. CFF detected abnormality in 90% of patients. Accuracy of CFF in differentiation of Child A from normal is 100%, Child B from normal is 100%, Child C from normal is 100%, Child A from Child B is 80%, Child A from Child C is 100% and Child B from Child C is 100%, and it has higher accuracy than line drawing test. CFF is a simple, reliable and accurate method for the diagnosis of minimal hepatic encephalopathy. It is not influenced by the patient level of education.

Keywords: Chronic Hcv;Critical Flicker Frequency;Liver Cirrhosis;Minimal Hepatic Encephalopathy;Hepatic Encephalopathy.

159. Toll-Like Receptors-2 and -9 (Tlr2 and Tlr9) Gene Polymorphism in Patients with Type 2 Diabetes and Diabetic Foot

Mohamed-Naguib Abdalla Wifi, Maha Assem, Rasha Hamed Elsherif, Hameda Abdel-Fattah El-Azab and Aasem Saif

Medicine, 96:17(e6760): 1-6 (2017) IF: 1.804

Toll-like receptors (TLRs) are innate immune receptors that mediate the inflammatory response in diabetes mellitus (DM). The aim of this study is to evaluate the association of TLR2 and TLR9 gene polymorphism in patients with type 2 DM (T2DM) and diabetic foot (DF).The study included 90 subjects divided into group I (30 patients with T2DM and DF), group II (30 patients with T2DM and no evidence of DF), and group III (normal control subjects). TLR2 (1350 T/C, rs3804100) and TLR9 (1237 T/C, rs5743836) genotyping was performed by polymerase chain reaction–restriction fragment length polymorphism (PCR-RFLP) technique for all subjects.There was a statistically significant difference in the distribution of TLR9-1237 T/C genotypes between groups I and II (P<.029) as well as between groups I and III (P<.001). Calculated risk estimation revealed that TLR9-1237 polymorphism conferred almost 20 times increased risk of DF disorders in T2DM (OR=20, 95% CI=5.38–74.30). There was no statistical difference in the distribution of TLR2-1350T/C genotypes between the 3 groups. TLR9-1237T/C gene polymorphism may be considered as a molecular risk for DF among patients with T2DM. Abbreviations: BMI = body mass index, CI = confidence interval, DM = diabetes mellitus, DF = diabetic foot, OR = odds ratio, PCR = polymerase chain reaction, SD = standard deviation, T2DM = type 2 diabetes mellitus, TLR = toll-like receptor.

Keywords: Diabetic Foot;Gene Polymorphism;Toll-Like Receptors;Type 2 Diabetes Mellitus.

160. The Microbiome and Transfusion in Cancer Patients

Hadi Goubran, Jerard Seghatchian, Julia Radosevic, Gaafar Ragab and ThierryBurnouf

Transfusion And Apheresis Science, 56: 330-335 (2017) IF: 1.3

Our microbiota is determined by many variables including ABO blood groups. The microbiota is not only confined to the gut and skin but is also recoverable from blood of healthy donors.The microbiota shape our immune system through cross reactivity with antigens, the expression of direct molecular patterns, the release of cytokines, the effects on nutrients and micronutrients and even through an interplay with epigenetics. It is likely, therefore, that a donor's microbiota could alter the antigenicity of blood and its components and potentially contribute to transfusion-related immune modulation [TRIM]. It could also potentially transmit infections. The recipient's microbiome contributes, on the other hand, to the tolerance to transfused blood, or to the development of transfusion reactions. Cancer patients are a particularly vulnerable population, often immunosuppressed with a significantly altered microbiota. They are more at risk for transmission of "dormant" bacteria via blood transfusion. Furthermore, chemotherapy and radiation induce mucositis that likely results in significant translocation of gut microbiota and abnormal immune reactions to transfused blood. It is therefore relevant to revisit transfusion thresholds and consider transfusion-saving strategies in cancer patients.

Keywords: Microbiome;Transfusion;Cancer.

161. Endoscopic Ultrasound and Endoscopic Ultrasound-Guided Fine Needle Aspiration in The Diagnosis of Diffuse Gastrointestinal Lesions with Inconclusive Endoscopic Biopsies

Hussein Hassan Okasha, Shaimaa Elkholy, Mohamed Sayed, Reem Ezzat Mahdy, Yehia ElSherif, Emad El-Gemeie and Amr Abo El-Magd

Turkish Journal Of Gastroenterology, 28: 370-376 (2017) IF: 0.966

Background/Aims: Many gastrointestinal tumors appearing as diffuse circumferential malignancies, for example, diffuse signet ring adenocarcinoma and lymphoma, might primarily involve the submucosal layer and hence are difficult to diagnose because they frequently yield negative endoscopic biopsies. This main aim of this study was to evaluate the accuracy of endoscopic ultrasound (EUS) and EUS-guided fine-needle aspiration (EUS-FNA) in the diagnosis of diffuse gastrointestinal lesions with inconclusive endoscopic biopsies.**Materials and Methods:**This prospective study included 92 patients with diffuse or circumferential gastrointestinal lesions with non-conclusive biopsies that were taken during upper or lower endoscopy. EUS and EUS-FNA were performed on all patients with cytopathological examination. **Results:**This study included 58 males (63%) and 34 females (37%) with a mean age of 54.2 years. Seventy-two cases (78.3%) were shown to have malignant lesions, and 20 cases (21.7%) were shown to be benign. EUS had a sensitivity of 94.4%, a specificity of 65%, a positive predictive value (PPV) of 90.7%, and a negative predictive value (NPV) of 45.1% with a p<0.0001 in diagnosing malignant lesions. EUS-FNA had a sensitivity of 83%, specificity of 100%, PPV of 100%, and NPV of 61.9% with a p<0.0001.**Conclusion:** Endoscopic ultrasound with EUS-FNA is an accurate procedure in the diagnosis of endoscopic biopsy-negative diffuse or circumferential gastrointestinal lesions.

Keywords: Eus-Fna-Diffuse Git Lesions.

162. _Herpes Zoster Reactivation in Patients with Chronic Hepatitis C Under Treatment with Directly Acting Antiviral Agents: A Case Series

Mohamed El Kassas , Mohamed Naguib Wifi , Reem Mahdy , Shimaa Afify , Enas Hafez , Yasmeen Abd El Latif , Marwa Ezzat , Adel El Tahan, Naglaa Youssef and Gamal Esmat

Arab Journal Of Gastroenterology, 18: 39-41 (2017) IF: 0.672

We report a series of cutaneous Herpes Zoster (HZ) reactivation cases in patients with hepatitis C virus (HCV) infection treated with directly acting antiviral (DAA) agents. Five cases were detected among 2133 treated patients with DAAs at one of the specialized viral hepatitis treatment centers in Egypt. A control group including 2300 age and sex matched HCV patients who were previously treated with pegylated interferon and ribavirin did not show any HZ reactivation reports while on treatment. None of cases had an evidence of immunosuppression or a risk factor for HZ reactivation. The DAAs used regimens were sofosbuvir/daclatasvir in 4 cases and sofosbuvir/simeprevir in one case. HCV clearance with antiviral therapy may bring immune changes causing reactivation of other latent viral infections like HZ. A high index of clinical suspicion may be needed to guarantee early and prompt management of such cases.

Keywords: Hcv;Daas;Herpes Zoster.

163.Endoscopic Ultrasound-Guided Fine-Needle Aspiration and Cytology for Differentiating Benign From Malignant Lymph Nodes

Hussein Okasha, Shaimaa Elkholy , Mohamed Sayed, Ahmed Salman, Yahia Elsherif and Emad El-Gemeie

Arab Journal Of Gastroenterology, 18: 74-79 (2017) IF: 0.672

Background and Study Aims: Intra-abdominal and mediastinal lymphadenopathy are often difficult to diagnose, particularly in the absence of a primary lesion. Endosonography (EUS)-guided fine-needle aspiration and cytology (FNAC) has provided an easy and safe access to these lymph nodes, sparing the use of invasive and costly interventions. The main aim of this study is to assess the specificity, sensitivity, and predictive value of EUS-guided FNAC in the diagnosis of benign and malignant lymph nodes. In addition, the study aims to determine significant EUS features that could help in predicting lymph node malignancy.**Patients and Methods:**This prospective study included 142 patients with intra-abdominal or intrathoracic lymphadenopathy who were referred for EUS-guided FNAC because of inaccessibility by other imaging modalities. Ninety (63.3%) patients were found to have malignant lymph nodes, and 52 (36.6%) had lymphadenopathy of benign nature. **Results:**EUS-guided FNAC had a sensitivity and specificity of 92% and 100% respectively. It had positive and negative predictive values of 100% and 88% for malignancy, respectively. By logistic regression analysis, EUS features and shortest diameter were found to be potential predictors of malignancy with p-value of <0.0001. **Conclusion:**EUS-guided FNAC is a powerful modality in the

diagnosis of benign and malignant lymph nodes. Additional complementary EUS features could be added to this technique for definitive diagnosis.
Keywords: Eus;Lymph Nodes;Fna.

164. Double-Balloon Enteroscopy (Dbe) in Patients Presenting with Obscure Gastrointestinal Bleeding (Ogib)

Esmat Sheba, Ali Farag, Wael Aref, Shaimaa Elkholy and Omar Ashoush

Arab Journal Of Gastroenterology, 18: 228-233 (2017) IF: 0.672

Background and study aims: Obscure gastrointestinal bleeding (OGIB) is defined as bleeding of unknownorigin that persists or recurs after an initial negative investigation. Identifying the source of OGIB represents a diagnostic challenge that is frequently focused on visualizing the small intestine. Conventional diagnostic methods, such as push enteroscopy, small-bowel follow-through, radionuclide scanning,and angiography, each exhibit inherent limitations. Double balloon enteroscopy (DBE) was designed specifically to evaluate the entire small bowel. DBE allows for better visualization, biopsy of the identified lesions and application of therapeutic techniques. This study sought to assess the role of DBE in the diagnosis and management of patients with OGIB. Patients and methods: This prospective study was conducted to analyse data from 31 patients presenting with OGIB referred for DBE in the Endoscopy Unit at the Internal Medicine Department of the Faculty of Medicine, Cairo University. **Results:** Five patients had lesions in locations other than the small intestine that accounted for GI bleeding.Thus, the potential source of OGIB was defined as the small intestine in 18 of 26 patients (69.2%), and negative DBE findings were noted in eight patients (30.8%). Major findings included small intestinal tumours in eight patients, vascular bleeding lesions in 8 patients and ulcerations in 2 patients. Endoscopic haemostasis was performed in eight patients with vascular lesions. The three patients with Petuz-Jegher syndrome underwent polypectomy of their major polyps. Patients with gastrointestinal tumours were referred for surgery. **Conclusion:** DBE is an excellent endoscopic procedure that has a relatively high diagnostic and therapeutic yield. The procedure is feasible and exhibits a high safety profile with a low complication rate whenperformed by an experienced endoscopist.
Keywords: Double Balloon Enteroscopy;Obscure Gastrointestinal Bleeding.

165. Nodular Lymphoid Hyperplasia of the Gastrointestinal Tract : A Comprehensive Review

Shaimaa Elkholy, Sherif Mogawer and Ali Farag

Acta Gastro-Enterologica Belgica, 80: 361-364 (2017) IF: 0.632

Nodular lymphoid hyperplasia (NLH) is a rare benign condition that is characterized by diffuse hyperplasia of the lymphoid follicles of the gastrointestinal tract (GIT). During endoscopy,NLH appears as multiple or occasionally innumerable nodules measuring a few millimeters in diameter. NLH occurs mainly in the small intestine, less commonly in the large intestine and rarely involves the stomach. There are multiple associated diseases such as immunoglobulin deficiency syndromes, giardiasis, Helicobacter pylori (H. pylori) infection, HIV and celiac disease. NLH elicits a wide range of symptoms that can range from asymptomatic to chronic diarrhea, weight loss, bleeding from the rectum and,very infrequently, intestinal obstruction. The clinical significance of NLH relies not only on the associated conditions but also on the possible complications. The most important of which are malignant transformation, particularly to gastric carcinoma, and intestinal or extra-intestinal lymphoma. There is no consensus regarding the management and surveillance of NLH. However,surveillance is recommended by most authors, but the intervalsand duration have not yet been identified.
Keywords: Nodular Lymphoid Hyperplasia-Git.

166. Isolated Pulmonary Valve Vegetations in A Patient With Gastric Lymphoma Diagnosed by Endoscopic Ultrasound

Hussein Okasha, Shaimaa Elkholy, Reem Ezzat Mahdy and Ahmed El-Kafrawi

Acta Gastro-Enterologica Belgica, 80: 430-431 (2017) IF: 0.632

A thirty five year old man presented to the internal medicine department of Cairo University with anorexia,persistent vomiting and progressive weight loss of 2months duration. The patient is known to be an I.V (intra venous) drug abuser for 6 years; he looked toxic with high grade resistant fever. CBC showed normal leucocyticcount with relative PMN leukocytosis and lymphopenia.CRP titer was 179 mg/dl (N:<6mg/dl).The patient was referred for upper endoscopy that revealed mild narrowing at the cardia with exaggerated gastric folds suggesting infiltrating wall disease; however endoscopic biopsies were inconclusive. Due to the high clinical suspicion, EUS and EUS-FNAwere done using Pentax EG-3830UT Echo-endoscope,connected to a HITACHI EUB-7000 sonography machine.EUS could not pass to the stomach due to narrowing of the cardia by an irregular mass involving all walllayers and extending to the gastric fundus. EUS-FNA of the cardia and gastric fundal wall was done using a22-gauge Echotip needle. During withdrawal of the Echoendoscope to area 7 of the mediastinum, multiple small floating masses were detected adherent to the pulmonaryvalve suggestive of pulmonary valve vegetationsthat was confirmed by echocardiography. EUS-FNArevealed atypical lymphocytes positive for CD3 and CD5 indicating Non-Hodgkin gastric lymphoma. Threeblood cultures were withdrawn and IV antibiotics (flucloxacillin and gentamicin) were started immediately,but unfortunately, two days later, the patient has suddensevere hypotension, dyspnea and cyanosis and arrested within few minutes, the cause of death was suggested to be due to massive pulmonary embolism.
Keywords: Eus;Gastric Lymphoma.

167. Performance Of Classification Criteria For Behcet'S Disease In An Egyptian Cohort

Mohamed Ahmed Hussein, Mona I Ellawindi and Gaafar Ragab

Indian Journal Of Rheumatology, 12: 152-155 (2017)

Background: The revised Japanese criteria, the International study group (ISG), theInternational criteria for Behcet's disease (ICBD) 2006, and the revised ICBD 2010 arefrequently used for the classification of Behcet's Disease (BD). In this study we evaluated theperformance of these criteria sets in Egyptians.**Methods:** A total of of 461 Egyptian patients over 5 years were studied. It included 256 patients classified as BD based on expert opinion and 205 patients with other autoimmune and/or autoinflammatory diseases with symptoms similar to BD. Performance of the revised Japanese criteria, ISG, ICBD 2006, and the revised ICBD 2010 was evaluated evaluated in terms of sensitivity, specificity, negative predictive value (NPV), negative likelihood ratio (NLR),positive predictive value (PPV), positive likelihood ratio (PLR), diagnostic odd ratio (DOR), and Youden's index (YI). Results: ICBD 2010 carried the highest sensitivity (98.83%), NPV (98.48%), DOR (1645), and YI (0.94) with lowest NLR (0.01). On the other hand, ICBD 2006 and ISG were very specific (99.51%, 99.41%, respectively) with PPV (99.49%, 99.40%) and PLR (155.35, 126.33),respectively.**Conclusions:** ICBD 2010 is a very good criteria set to be used in Egyptian BD patients based on its very high sensitivity, accepted specificity, and power of discrimination that enables early patients classification, management, and prognosis.

Keywords: Behcet'S Disease;Classification Criteria;Clinical Diagnosis;Criteria Performance.

168.Premature Ovarian Failure Could be an Alarming Sign of Polyglandular Autoimmune Dysfunction

SAIF Aand ASSEM M

Endocrine Regulations, 51: 114-116 (2017)

A 31-year-old lady, diagnosed to have premature ovarian failure in the gynecology clinic, was referred for endocrine assessment because of an abnormal thyroid function test. Clinical examination revealed hypotension, and fungal skin infection under her atrophic breasts. Thyroid stimulating hormone (TSH) level was very high. Assessment of the suprarenal function revealed evidence of Addison's disease. Polyglandular autoimmune dysfunction was diagnosed. She was treated with prednisone, fludrocortisone, and levothyroxine with significant improvement of her general condition and blood pressure.

Keywords: Adrenal Failure;Hypothyroidism;Ovarian Failure;Polyglandular Autoimmune Syndrome.

Dept. of Medical Biochemistry and Molecular Biology

169. Mirna-101-1 and Mirna-221 Expressions and Their Polymorphisms as Biomarkers for Early Diagnosis of Hepatocellular Carcinoma

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Infection Genetics And Evolution, 51: 173-181 (2017) IF: 2.885

Background: Hepatocellular carcinoma (HCC) is the fifth most common malignant tumor with an increasing incidence.Hepatitis C virus (HCV) is one of the major risk factors that lead to HCC development. MicroRNAs are conserved non-coding RNAs which regulate gene expression at the posttranscriptional level. They have been recently identified as important regulators that affect carcinogenesis. Of these miRNAs, are miR-221 and miR-101-1, which their aberrant expressions have been reported to play an important role in HCC.Patients and methods: In this study, we investigated the association between miR-221 and miR-101-1 polymorphismsand their expressions and the early prediction of HCC in HCV infected patients. Quantitative real-timePCR (qPCR) was done to estimate the expression levels of miRNA-221 and miRNA-101-1 in serum. To detect the genotyping of miR-221 and miR-101-1 related SNPs, DNA was extracted. Then, genotyping was performedusing real-time PCR.**Results:** We found that rs7536540 polymorphism in miR-101-1 is significantly associated with development of HCC. In addition, our results showed no significant association between rs17084733 polymorphism in miR-221 and HCC occurrence. We confirmed the upregulation of miR-221 and the downregulation of miR-101-1 in HCC. As regards HCV patients, miR-221and miR-101-1 were found to be upregulated. **Conclusion:** Both miR-221 and miR-101-1 expression levels may be useful as noninvasive diagnostic biomarkers for early prediction of HCC among HCV patients.

Keywords: Hcc;Hcv;Snps;Mir-101-1;Mir-221.

170. Effect of 6-Gingerol on Ampk- Nf-Kb Axis in High Fat Diet Fed Rats

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Biomedicine Pharmacotherapy, 88: 293-301 (2017) IF: 2.759

Objectives: Adenosine monophosphate (AMP)-activated protein kinase (AMPK) plays a central role in metabolic homeostasis and regulation of inflammatory responses through attenuation of nuclear factor kappa-B (NF-kB), Thus AMPK may be a promising pharmacologic target for the treatment of various chronic inflammatory diseases. We examined the effect of 6-gingerol, an active ingredient of ginger on AMPK-NFkB pathway in high fat diet (HFD) rats in comparison to fish oil.Methods: Protein levels of AMPK-a1 and phosphorylated AMPK-a1 were measured by western blot while Sirtuin 6 (Sirt-6), resistin and P65 were estimated by RT-PCR, TNF-a was determined by ELISA, FFAs were Estimated chemically as well as the enzymatic determination of the metabolic parameters.**Results:** 6-Gingerol substantially enhanced phosphorylated AMPK-a1 more than fish oil and reduced theP65 via upregulation of Sirt-6 and downregulation of resistin, and resulted in attenuation of the inflammatory molecules P65, FFAs and TNF-a more than fish oil treated groups but in an insignificant statistica manner, those effects were accompanied by a substantial hypoglycemic effect. **Conclusion:** Gingerol treatment effectively modulated the state of inflammatory privilege in HFD group and the metabolic disorders via targeting the AMPK-NF-kB pathway, through an increment in the SIRT-6 and substantial decrement in resistin levels.

Keywords: Ampk;6-Gingerol;High Fat Diet;P65;Resistin;Sirtun6.

171. In Vitro Evaluation of the Human Gingival Fibroblast/Gingival Mesenchymal Stem Cell Dynamics Through Perforated Guided Tissue Membranes: Cell Migration, Proliferation and Membrane Stiffness Assay

Gamal AY, Al-Berry NN, Hassan AA, Rashed LA and Iacono VJ.

Journal Of Periodontal Research, 3: 628-635 (2017) IF: 2.662

Background: Migration of gingival fibroblasts/gingival mesenchymal stem cells through macro-perforated barrier membranes may allow them to participate positively in periodontal regeneration. The optimal guided tissue membrane perforation diameter that could favor maximum cell migration into the defect area and at the same time act as an occlusive barrier for gingival epithelium and its associated gingival extracellular matrix component is not yet identified.**Material and Methods:** Cultured human gingival fibroblasts/gingival mesenchymal stem cells were placed in the upper chambers of 12-well collagen-coated polytetrafluoroethylene transwells, which were manually perforated with 0.2, 0.4 and 0.7 mm sized pores. received blood clot as an attraction medium. The number of cells that have migrated to the lower chambers was calculated. Proliferation of these cells was evaluated using MTT assay. Scanning electron microscopy images were obtained for the lower surfaces membranes (Tutopatch®) were subjected to mechanical testing to determine the tensile strength and modulus of elasticity.**Results:** Group 3 (0.7 mm) showed significantly higher values for cell migration and proliferation. All groups showed a small degree of extracellular electron microscopy evaluation revealed variable numbers of cells in fibrin matrices located mainly around the pore edges. There were non-significant differences between groups regarding mechanical properties.**Conclusions:** The present study demonstrated that macro-membrane perforations of 0.2, 0.4 and 0.7 mm are suitable pore diameters that could maintain membrane stiffness and allow for cellular migration. However, these membrane perforation diameters did not allow for total gingival connective tissue isolation.

Keywords: Guided Tissue Membrane;Guided Tissue Regeneration;Periodontal Pockets;Periodontal Regeneration.

172. Prognostic Value of Pro-Inflammatory Cytokine and Pro-Angiogenesis Factor in Differentiating Malignant from Benign Exudative Effusion.

Radwa Ahmed Elhefny, Marwa Moawad Shaban and Olfat Gamil Shaker

Clinical Respiratory Journal, 11: 49-57 (2017) IF: 2.356

Background and Aims: The precise mechanism of pathogenesis in exudation of effusions is uncertain. Released factors in inflammation and malignancy of pleura are related to incremented permeability of the micro-pleural vessels. Angiopoietins(Ang) take part in development of angiogenesis and pleural inflammation.Interleukin-8 (IL-8) influences proliferation and tumor angiogenesis and it is expressed in cancer. The aims of this study were to investigate the relationshipbetween inflammation, angiogenesis and etiologies of exudative effusions, and toevaluate the diagnostic value in differentiating malignant from benign.**Methods:** The study includes 49 pleural fluid (PF) samples. Ang-2 and IL-8 in PF and serum were estimated.Results: Ten patients were transudative and 39 patients were exudative fluid, subdivided into 16 benign and 23 malignant effusion. Ang-2 and IL-8 either fluid level or ratio were in significantly high in exudative more than in transudative fluid (P = 0.002). Ang-2 and IL-8 in PF were in high level than in serum of exudative and transudative. Ang-2 fluid level and ratio were significantly high in benign exudative effusion (P = 0.01, P = 0.05, respectively), while IL-8 level was significantly high in malignant exudative effusion (P = 0.04). Cut-off points for PF Ang-2 and IL-8 in differentiating malignant from benign exudative were 15.67 ng/mL, 325.54 pg/mL, respectively.**Conclusion:** Our results support the evidence that angiogenesis and inflammatory pathways are linked, and that inflammation and vascular permeability of pleura constitutes the pathogenic basis of the majority of exudative effusion.

Keywords: Angiopoietin-2;Diagnosis;Exudative Effusions;Interleukin-8;Malignant Effusion.

173. Can Mesenchymal Stem Cells Pretreated with Platelet-Rich Plasma Modulate Tissue Remodeling in A Rat with Burned Skin?

Hanan Hosni Ahmed, Laila Ahmed Rashed, Sohair Mahfouz, Rania Elsayed Hussein, Marwa Alkaffas, Shaimaa Mostafa and Azza Abusree

Biochemistry And Cell Biology, 95: 537-548 (2017) IF: 1.895

Our aim was to study the effect of platelet-rich plasma (PRP) on the proliferation of bone-marrow-derived mesenchymal stem cells (BM-MSCs) and to investigate their roles in the healing of experimental burn injury and the possible mechanism of action. Our work was divided into in-vitro and in-vivo studies. The in-vitro study included untreated MSCs and MSCs treated with PRP. Levels of TGF-β and cell proliferation were assessed. In the in-vivo study, 72 rats were distributed equally among 6 groups: control, burn, burn with MSCs, burn with PRP, burn with both MSCs and PRP, and burn with MSCs pretreated with PRP. On the 7th and 20th day after injury, the serum levels of transforming growth factor beta (TGF-β) and tumor necrosis factor alpha (TNF-α), as well as interleukin-10 (IL-10) levels in skin tissue were measured by ELISA; histopathology and gene expression of MMP-1, TIMP-2, Ang-1, Ang-2, and vimentin by real-time PCR were performed in all groups. In vitro: proliferation of MSCs and TGF-β increased in the PRP-treated group compared with the control group. In vivo: Ang-1, Ang-2, and vimentin were upregulated, whereas MMP-1 and TIMP-2 were downregulated. TGF-β and IL-10 were increased, whereas TNF-α was decreased in all treated groups with more significance in MSCs and PRP on day 20. Histopathology of burn skin was improved in all treated groups, particularly in MSCs pretreated with PRP 20 days post-burn.

Keywords: Burn;Mscs;Prp.

174. Does Vitamin C Have the Ability to Augment the Therapeutic Effect of Bone Marrow-Derived Mesenchymal Stem Cells on Spinal Cord Injury?

Nesrine Salem , Mohamed Y. Salem , Mohammed M. Elmaghrabi , Moataz A. Elawady , Mona A. Elawady , Dina Sabry , Ashraf Shamaa , Abdel-Haleem H. Elkasapy , Noha Ibrhim and Azza Elamir

Neural Regeneration Research, 12: 2050-2058 (2017) IF: 1.769

Methylprednisolone (MP) is currently the only drug confirmed to exhibit a neuroprotective effect on acute spinal cord injury (SCI). Vitamin C (VC) is a natural water-soluble antioxidant that exerts neuroprotective effects through eliminating free radical damage to nerve cells. Bone marrow mesenchymal stem cells (BMMSCs), as multipotent stem cells, are promising candidates in SCI repair. To evaluate the therapeutic effects of MP, VC and BMMSCs on traumatic SCI, 80 adult male rats were randomly divided into seven groups: control, SCI (SCI induction by weight-drop method), MP (SCI induction, followed by administration of 30 mg/kg MP via the tail vein, once every other 6 hours, for five times), VC (SCI induction, followed by intraperitoneal administration of 100 mg/kg VC once a day, for 28 days), MP + VC (SCI induction, followed by administration of MP and VC as the former), BMMSCs (SCI induction, followed by injection of 3 × 106 BMMSCs at the injury site), and BMMSCs + VC (SCI induction, followed by BMMSCs injection and VC administration as the former). Locomotor recovery was assessed using the Basso Mouse Scale. Injured spinal cord tissue was evaluated using hematoxylin-eosin staining and immunohistochemical staining. Expression of transforming growth factor-beta, tumor necrosis factor-alpha, and matrix metalloproteinase-2 genes was determined using real-time quantitative PCR. BMMSCs intervention better promoted recovery of nerve function of rats with SCI, mitigated nerve cell damage, and decreased expression of transforming growth factor-beta, tumor necrosis factor-alpha, and matrix metalloproteinase-2 genes than MP and/or VC. More importantly, BMMSCs in combination with VC induced more obvious improvements. These results suggest that VC can enhance the neuroprotective effects of BMMSCs against SCI.

Keywords: Bone Marrow Mesenchymal Stem Cells;Locotmotor;Methylprednisolone;Nerve Regeneration;Neural Regeneration;Spinal Cord Injury;Vitamin C.

175. Comparative Study of Antifibrotic Activity of Some Magnesium-Containing Supplements on Experimental Liver Toxicity. Molecular Study.

El-Tantawy WH, Sabry D and Abd Al Haleem EN.

Drug And Chemical Toxicology, 40: 47-56 (2017) IF: 1.732

Introduction: Liver fibrosis is the excessive accumulation of extracellular matrix (ECM) proteins including collagen that occurs in most types of chronic liver diseases. This study aimed to investigate and compare the therapeutic efficacy of different magnesium (Mg)-containing supplements (formulations A, B, and C) on carbon tetrachloride (CCl4)-induced liver fibrosis in rats.**Methods:**Liver fibrosis was induced by intraperitoneal injection of rats with CCl4 (1:1 in olive oil, 2 mL/kg, three times/week) for 4 weeks, and then rats were orally treated with different Mg-containing supplements (formulations A, B, and C) once daily for another one month. Liver fibrosis was quantified by evaluation of expressions of Collagen I, transforming growth factor β-1 (TGFβ1), platelet-derived growth factor-C (PDGF-C), nuclear factor kappa-β (NF-κβ), and measurement of hepatic collagen (hydroxyproline) level. Also, malondialdehyde (MDA), nitric oxide (NO), glutathione (GSH) level, superoxide dismutase (SOD), and glutathione-S-transferase (GST) activities were estimated.**Results:**CCl4 administration significantly elevated expressions of the studied genes, hepatic hydroxyproline, MDA, and NO levels and caused depletion of GSH level, decreased SOD, and GST activities when compared with those of their corresponding control, $p < 0.05$. All magnesium supplements significantly inhibited expressions of the studied genes and attenuated the hepatic hydroxyproline level as compared with those of CCl4-treated group; $p < 0.05$; for NF-κβ, the highest inhibition was by formulations B and C. Regarding Collagen I, TGFβ1, and hepatic hydroxyproline content, the highest inhibition was by Formulation C, and Formulation A revealed highest inhibition for PDGF-C. All magnesium supplements revealed normalization of oxidant and antioxidants parameters. Histopathological examination supports the biochemical and molecular findings.

Keywords: Mg Supplements Were Effective In The Treatment Of Hepatic Ccl4-Induced Fibrosis-Rat Model.

176. Micrornas in Cutaneous Lichen Planus

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Clinical and Experimental Dermatology, 42: 898-901 (2017) IF: 1.589

Lichen planus (LP) is a chronic, inflammatory, papulosquamous, autoimmune disease.The pathogenesis of LP appears to be complex, with interactions between genetic, environmental and lifestyle factors. MicroRNAs (miRNAs) are short RNAsencoded in both protein coding and noncoding areas of the genome, and have been found to be involved in the pathogenesis of some inflammatory skin diseases. Theaim of this study was to map the levels of miRNA (miR-)-203 and miR-125b in cutaneous LP to evaluate their possible role in the pathogenesis of the disease. Intotal, 40 patients with classic cutaneous LP and 40 age- and sex- matched healthy controls (HCs) were enrolled in this study. Punch biopsies (4 mm) were taken fromcutaneous LP lesions of patients and from normal skin of HCs. miRNA-203 and miRNA-125b mRNA expression was estimated by reverse transcription PCR. Ouranalysis revealed a significantly ($P < 0.001$ for both) lower expression of both miR203and miR-125b mRNA in the LP than in the HC biopsies. No relationship was found between expression of miR-203 or miR-125b and either age, sex, presence ofmucosal lesions or positivity for HCV antibodies. miR-125b and miR-203 could be involved in the pathogenesis of cutaneous LP.

Keywords: Lichen Planus;Mir-203;Mir-125B.

177. Role of Mesenchymal Stem Cells Versus Angiotensin Converting Enzyme Inhibitor in Kidney Repair

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Nephrology, 22: 531-540 (2017) IF: 1.563

Aim: The current study sought to clarify the role of bone marrow derived mesenchymal stemcells (BM-MSCs) and adipose tissue derived mesenchymal stem cells (AD-MSCs) in repressing nephropathy in the experimental model.Moreover, the aim of this work was extended to compare between stem cells role and angiotensin converting enzyme inhibitor in kidney repair.Methods: Isolation and preparation of MSCs culture, flow cytometry using CD34, CD44 and CD105 cell surface markers, biochemical analyses for determination of serum creatinine, urea, transforming growth factor ß (TGF-ß),cystatin C (CYS-C) and urinary N-Acetyl-ß-D–Glucosaminidase (UNAG), and histopathological investigation of kidney tissue sections were performed.Results: The results of the present study revealed that single intravenous infusion of MSCs either derived from bone marrow or adipose tissue was able to enhance renal reparative processes through significantly decreased serum creatinine, urea, TGF-ß and CYS-C levels as well as UNAG level and significantly increase glomerular filtration rate. Additionally, the histopathological investigations of kidney tissues showed that MSCs have significant regenerativeeffects as evidenced by the decrease in focal inflammatory cells infiltration, focal interstitial nephritis and congested glomeruli as well as degenerated tubules.Conclusion: The current data provided distinct evidence about the favourable impact of AD-MSCs and BM-MSCs in attenuation of cyclosporine-inducednephropathy in rats through their ability to promote functional and structuralkidney repair via transdifferentiation.

Keywords: Angiotensin Converting Enzyme Inhibitors;Cyclosporine;Mesenchymal Stem Cells;N-Acetylß-D-Glucosaminidase;Nephrotoxicity.

178. A Novel Mutation in Exon 1 of Gata4 in Egyptian Patients with Congenital Heart Disease

Olfat Shaker, Salwa Omran, Eman Sharaf, Gehan A. Hegazy, Mohamed Mashaly and Nagwa E.A. Gaboon

Turkish Journal Of Medical Sciences, 47: 217-221 (2017) IF: 0.71

Background/aim: Congenital heart disease (CHD) is a common birth defect. Many studies have reported GATA4 mutations in patients with CHD, mainly septal defects. This study aimed to investigate the GATA4 exon 1 mutation in Egyptian patients with isolated congenital heart defects as a possible causative mutation.**Materials and methods:** Screening for mutations or any sequence variations in exon 1 of the GATA4 gene was carried out by PCR amplification followed by direct sequencings in 165 Egyptian patients with different nonsyndromic congenital heart diseases and 93controls who were matched in terms of age and sex. Thorough clinical assessments were done for all subjects, along with X-ray, 2D echocardiography, and Doppler examinations.**Results:** The most common CHD among our cases was isolated ventricular septal defect (VSD) in 47.3% (78/165), followed by isolated atrial septal defect. A novel nonsynonymous sequence variation in fragment 2 (P193H) of exon 1 of GATA4 was detected in 15 (9.1%) of the subjects with septal defects. This mutation was not seen in any of the control group subjects.**Conclusion:** There is a high prevalence of exon 1 GATA4 mutation (9.1%) in our study compared to other studies in different populations, which may correlate with different ethnic populations.

Keywords: Congenital Heart Disease;Cardiac Septal Defects; Gata4 Mutation.

179. Combination of Obestatin and Bone Marrow Mesenchymal Stem Cells Prevents Aggravation of Endocrine Pancreatic Damage in Type Ii Diabetic Rats.

Hussien NI, Ebrahim N, Mohammed OM and Sabry D.

International Journal Of Stem Cells, 10: 129-143 (2017)

One of the new promising therapies in treatment of diabetes mellitus is mesenchymal stem cells (MSCs) which have an interesting therapeutic potentiality based on their paracrine effect and transdifferentiation potentiality. Also obestatin improves the generation of functional β cells/islet-like cell clusters in vitro, suggesting implications for cell-based replacement therapy in diabetes. So the aim of this study was to evaluate the effect of combination of both MSCs and obestatin on an experimental model of type II diabetes mellitus (T2DM). Sixty male rats were divided into; group I (control group), group II (T2DM group) induced by administration of high fat diet (HFD) and injection of streptozotocin (STZ) in low dose, group III (T2DM treated with MSCs), group IV (T2DM treated with obestatin), group V (T2DM treated with MSCs and obestatin). Fasting blood glucose, C-peptide, insulin and lipid profile were measured. HOMA-IR and HOMA-β were calculated. Pancreatic expression of insulin, glucagon like peptide -1 (GLP-1) and pancreatic duodenal homeobox 1 (Pdx1) mRNA levels were measured. In addition pancreatic histological changes, insulin and Bax were analyzed by immunohistochemical examination of islets of Langerhans. Diabetic rats showed significant increase in HOMA-IR, serum glucose and lipid profile levels with significant decrease in insulin, HOMA-β, GLP-1 and Pdx1 levels. MSCs and obestatin caused significant improvement in all parameters with more significant improvement in combined therapy. The protective effects afforded by MSCs and obestatin may derive from improvement of the metabolic profile, antiapoptosis and by increase in pancreatic GLP-1and Pdx1 gene expression.

Keywords: Mesenchymal Stem Cells;Obestatin;Type Ii Diabetes Mellitus.

180. Xrcc1 Gene Polymorphisms and Mir-21 Expression In Patients With Colorectal Carcinoma.

Fouad H, Sabry D, Morsi H, Shehab H and Abuzaid NF.

Eurasian Journal Of Medicine, 49: 132-136 (2017)

Objective: The objectives of this study were to evaluate the impact of two X-ray repair cross complementing 1 (XRCC1) gene polymorphisms (Arg194Trp and Arg399Gln) on the risk of development of colorectal cancer (CRC) and to assess the expression levels of microRNA-21 (miR-21) in CRC patients.**Materials and Methods:**A case-control cross sectional study was conducted on 50 CRC patients and 50 cancer-free subjects. DNA and miR-21 were extracted from whole blood samples. The expression levels of the XRCC1 polymorphisms and miR-21 were assessed by real-time PCR in all subjects of the study.**Results:**Genotype analysis revealed a significant association between CRC risk and both the Arg194Trp genotype (OR=11.407, 95% CI=4.039-32.221, p<0.001) and the

Arg399Gln genotype (OR=3.778, 95% CI= 1.6-8.919, p=0.002). The expression levels of circulating miR-21 were able to detect CRC cases significantly (p=0.022) with a sensitivity of 82% and a specificity of 56% (Area under the curve (AUC)=0.633) but were unable to distinguish between early and late cases (AJCC classification) (p=0.194).**Conclusion:**The XRCC1 Arg194Trp and Arg399Gln polymorphisms both confer high susceptibility for the development of CRC. Circulating miR-21 expression levels are a potentially diagnostic non-invasive genetic marker of CRC.

Keywords: Colorectal Cancer;Dna Repair;Xrcc1;Mirna-21; Single Nucleotide Polymorphisms.

181.Genetic Variants of Interleukin-18 Promoter Gene in Coronary Artery Disease

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Egyptian Journal Of Chemistry, 60(5): 883-891 (2017)

HEART disease is impacted by ecological and inherited factors. Interleukin-18 (IL-18) is a pro-inflammatory cytokine that stimulates the immune reaction and induces the formation of atherosclerotic plaques. The aim of this study was to determine the relation between IL-18 promoter variants at (607C/A) and (137G/C) sites and coronary artery disease (CAD). A sum of one hundred and twenty Egyptian patients (Sixty with CAD and sixty without CAD) and fifty healthy controls were consolidated into the study. Genotyping of IL18 promoter gene was investigated by PCR - Specific Sequence primer (PCR-SSP) technique. The outcomes demonstrated that a significant association between lipid profiles and risk for CAD. At position-137, the recurrence of GG genotype was fundamentally connected with CAD. No qualifications in the genotypic and allelic frequencies amongst cases and controls were found for IL-18 (607C/A) promoter gene. A relationship between IL-18 (137G/C) promoter gene and vulnerability to CAD was proposed and it might serve as susceptibility biomarkers in the pathogenesis of atherosclerosis.

Keywords: Coronary Artery Disease (Cad);Inflammation;Interleukin-18 (Il-18);Gene Polymorphism.

182. The Combined Effect of Ace, Tcf7l2, and Ppargc1a Gene Polymorphisms in Diabetic Nephropathy

Manal F. Ismail, Olfat G. Shaker, Esmat Ashour, Heba M. Yousif, Mie Afify and Weaam Gouda

Egyptian Journal Of Chemistry, 60(5): 869-881 (2017)

THIS study was performed for investigation the relationship between variants of ACE, TCF7L2 and PPARGC1A gene polymorphisms individually or in combination with the development of nephropathy in T2DM. The study was included 85 T2DM patients (45 with nephropathy and 40 without nephropathy), and 45 healthy control subjects. The I/D polymorphism of ACE gene was evaluated by PCR method. The polymorphisms rs7903146 (C/T) of TCF7L2 gene and Gly482Ser (G/A) and Thr394Thr (G/A) of PPARGC1A gene were evaluated by PCR-RFLP analysis.The frequency of ACE DD genotype and D allele was significantly higher in DN patients when compared to diabetic without nephropathy. The frequency of TCF7L2 rs7903146 TT genotype and T allele were significantly associated with DN patients compared to T2DM. Moreover, a significant association in A allelic frequencies was observed in DN cases compared to T2DM patients without nephropathy. No differences in the genotypic and allelic frequencies between T2DM patients with and without nephropathy were found for the Thr394Thr polymorphism.Our study suggested that candidate gene polymorphisms I/D of ACE, rs7903146 of TCF7L2 and Gly482Ser of PPARGC1A individually or in combination may act as susceptibility biomarkers for nephropathy in T2DM.

Keywords: Diabetic Nephropathy (Dn);Type 2 Diabetes Mellitus (T2dm);Angiotensin-Converting Enzyme (Ace);Transcription Factor 7–Like 2 (Tcf7l2);Peroxisome Proliferator Activated Receptor Gamma Coactivator-1 Alpha (Ppargc1a).

183. Sirt1 Gene Polymorphisms and its Protein Level in Colorectal Cancer

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Gene Reports, 7: 164-168 (2017)

Colorectal cancer (CRC) is a major cause of mortality and morbidity, and accounts for over 9% of cancer incidence worldwide. Nuclear localized silent information regulator 2 homolog 1 (SIRT1) gene exerts its effects via modulation of histone and non-histone targets. SIRT1 gene functions in the cell via histone deacetylase(HDAC) and/or adenosine diphosphate ribosyl transferase (ADPRT) enzymatic activity. The aim of this work is to study the relationship between SIRT1 polymorphism and its protein level in colorectal cancer patients in comparison to control cases. This study includes two group, thirty healthy subjects (control group) and one hundred CRC patients. SIRT-1 serum level was measured in both the groups by ELISA and gene polymorphisms of rs12778366, rs375891 and rs3740051were detected by real time PCR. For CRC patients clinical data wascollected including tumor size, tumor grade, tumor site, obesity. CRC patients showed a significant increase in the mean level of serum SIRT-1 compared to control group ($P < 0.001$). Mean serum level of SIRT-1 showed a significant increase in patients with tumor size ≥5 cm compared to the size< 5 cm ($P < 0.05$). In CRCpatients, the percentage of T allele of rs12778366 was significantly lower than controls, CC genotype and C allele C of rs375891 were significantly higher than control group. In CRC patients, the CC genotype of rs12778366, was 75% in the rectosigmoid colon and 25% in cecum & ascending colon. According to tumor size, the percentage of CC genotype was 87.5% in tumor size ≥5 cm.Conclusion: Serum level of SIRT-1 and T allele, C allele of rs12778366 and rs375891 respectively can be used as diagnostic markers for CRC patients.

Keywords: Crc;Sirt1;Polymorphisms;Elisa.

184. 25-Hydroxyvitamin D3 Deficiency and Vitamin D Receptor Polymorphisms in Egyptian Patients with Behçet'S Disease: A Pilot Study

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International Journal Of Clinical Rheumatology, 12(2): 20-27 (2017)

Background: We investigated serum levels of 25-hydroxyvitamin D3 and the vitamin D receptor (VDR) gene polymorphisms (Fokl, Bsml) in Egyptian patients with Behçet's disease (BD) and their relationship to disease manifestations and activity. Methods: We studied 45 patients with BD fulfilling the international study group criteria ISG for BD (1999) and 45 healthy, matched controls. We evaluated VDR Fokl, BsmI gene polymorphisms using polymerase chain reaction and restrictionenzyme cleavage. **Findings:** The serum levels of 25-hydroxyvitamin D3 were lower in BD group than control group (P=0.006). When the BD group was compared to the control group, vitamin D3 deficiency (<20 ng/ml) was 6.7% vs. 0%; respectively (P=0.012), and vitamin D3 insufficiency (20- 30 ng/ml) was 77.6% vs. 60%; respectively (P=0.012). Among BD group, Bsml genotype was more associated with BD than FokI genotype. Furthermore, Bsml genotype frequencies were homozygousBB (33.3%) and heterozygous Bb (60%). There was no significant relation between 25-hydroxyvitamin D3 levels and active clinical manifestations of BD. Also, we did not detect any correlation between 25-hydroxyvitamin D3 levels and disease activity, or duration of illness. Bb and Ff genotypes were associated with vitamin D3 deficiency and insufficiency in BD group (P<0.001, 0.001 respectively).**Conclusion:** lower serum level of 25-hydroxyvitamin D3 might be a modifiable risk factor orconsequence of BD. Polymorphisms in the VDR gene also are associated with susceptibility to BD which could be related to the immunomodulatory action of vitamin D. Further larger cohorts for genome wide association studies are required.
Keywords: Behcet'S Disease;Vitamin D Deficiency;Behcet'S Disease Activity;Vitamin D Receptor ;Gene Polymorphisms.

Dept. of Medical BioChemsitry

185. Neupogen and Mesenchymal Stem Cells Are the Novel Therapeutic Agents in Regeneration of Induced Endometrial Fibrosis in Experimental Rats

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Bioscience Reports, 37 (2017) IF: 2.906

Endometrial fibrosis is the presence of intrauterine adhesions (IUAs) after any uterine surgery or curettage and it results in infertility and recurrent pregnancy loss. We evaluated the role of human mesenchymal stem cells (hMSCs) as a therapeutic agent of endometrial fibrosis. We also compared the effect of MSCs with the effect of estrogen and neupogen either each alone or as a combined therapy with MSCs. This experimental study was performed on 84 albino rats which were divided into seven groups (n=12 rats/group) as follows, group1: normal control rats, group 2: induced fibrosis, group 3: induced fibrosis that received oral estrogen, group 4: induced fibrosis that received hMSCs, group 5: induced fibrosis that received hMSCs and estrogen, group 6: induced fibrosis that received neupogen, and group 7: induced fibrosis that received hMSCs and neupogen. The extent of fibrosis, vascularization, and inflammation were evaluated by; qRT-PCR for interleukin 1 (IL-1), interleukin 6 (IL-6), TNF, vascular endothelial growth factor (VEGF), transforming growth factor-β (TGF-β), and RUNX; ELISA for connective tissue growth factor (CTGF); Western blotting for collagen-I; immunohistochemistry examination for VEGF and RUNX-2; and histopathological assessment. In therapeutic groups either by hMSCs alone or combined with estrogen or neupogen; fibrosis and inflammation (IL-1, IL-6, TNF, TGF-β, RUNX, CTGF, and collagen-I) were significantly decreased but vascularization (VEGF) was significantly increased (P<0.05) compared with induced fibrosis group. The most significant result was obtained in fibrosis that received combined therapy of hMSCs and neupogen (P=0.000). Stem cells and neupogen are a highly effective alternative regenerative agents in endometrial fibrosis.
Keywords: Endometrial Fibrosis ;Mesenchymal Stem Cell; Neuopogen.

Dept. of Medical Microbiology and Immunology

186.Detection of Carbapenemase-Producers: Evaluating The Performance of the Carbapenem Inactivation Method and Carba Np Test Versus Multiplex Pcr

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Journal Of Global Antimicrobial Resistance, 9: 10-14 (2017) IF: 1.276

Objectives: With a worrisome surge of carbapenem-resistant bacterial isolates, the diagnostic arsenal has become in dire need of affordable and timely assays to detect the rapidly transmissible carbapenemases. Employing multiplex PCR as a reference method, the purpose of the present study was to compare the performance of the carbapenem inactivation method (CIM) and the Carba NP test in the detection of carbapenemase-producers.**Methods:**A panel of 203 Gram-negative bacterial isolates screened for carbapenem resistance were subjected to the CIM and Carba NP test. The results were compared with multiplex PCR targeting various carbapenemase genes.**Results:**According to multiplex PCR, 92 (45.3%) of 203 isolates were found to harbour one or more carbapenemase genes, with blaNDM and blaKPC being the most commonly encountered. The sensitivity and specificity of the CIM were 95.7% and 95.5% respectively, whilst those of the Carba NP test were 75.0% and 99.1%, respectively. Both methods were found to be rapid and reliable in the detection of carbapenemases and showed a high agreement with multiplex PCR.**Conclusions:**As the list of carbapenemase genes continues to expand, the reliability of PCR has become doubtful; hence, the CIM and Carba NP test could offer promising alternatives, with the CIM being of a lower cost and less labour intensive.
Keywords: Carbapenemases;Carba Np; Cim; Enterobacteriaceae; Pseudomonas.

187. Evaluation of Serum Protein Markers in Diagnosis of Hepatocellular Carcinoma and Carcinogenesis Risk Assessment in Chronic Liver Disease Patients

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Asian Pacific Journal Of Tropical Disease, 7: 564-568 (2017) IF: 0.925

Objective: To assess the diagnostic value of the protein markers in both cirrhotic patients on top of hepatitis C virus (HCV) and in hepatocellular carcinoma (HCC) patients on top of HCV in

comparison to normal controls. **Methods:** A total number of 100 subjects including HCC, cirrhotic patients on top of HCV and normal controls were subjected to serum protein markers analysis for alpha-fetoprotein, apolipoprotein A1, apolipoprotein A2, insulin like growth factor 1 and insulin like growth factor 1 receptor by western blotting technique. **Results:** It was found that alpha-fetoprotein alone could not be used as a screening test while apolipoprotein A2 as a serum marker could be used as a non invasive screening test to differentiate a case of HCC from cirrhotic HCV patient. The all four markers were able to discriminate normal persons from HCC and cirrhotic HCV patients effectively. **Conclusions:** We concluded that proteomics analysis being non invasive, rapid and sensitive is a novel gate that can serve in early diagnosis and screening of HCC and cirrhotic HCV patients

Keywords: Evaluation Serum Protein Markers Hepatocellular Carcinoma Carcinogenesis Hcv.

188. Human Metapneumovirus Pediatric Respiratory Infections: Comparing Direct Immunofluorescence Versus Polymerase Chain Reaction

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Archives of Pediatric Infectious Diseases, 5 (2): 1-8 (2017)

Background: Estimated as the second or third most prevalent respiratory pathogen in the pediatric population, routine testing for human metapneumovirus (hMPV) can have a pivotal impact on children's clinical outcome.Objectives: This cross-sectional analytical study aimed to determine the efficiency of direct fluorescent antibody (DFA) assay as a rapid tool for the diagnosis of hMPV infection as compared to real time reverse transcriptase polymerase chain reaction (rRT-PCR). In the meantime, we endeavored to analyze the clinical features in hMPV patients.**Methods:** A total of 50 children aged ≤ 24 months presenting with manifestations of acute respiratory tract infection (ARTI) at El-Mounira pediatric university hospital, Cairo university were enrolled in the study. Nasopharyngeal aspirates (or endotracheal aspirates in intubated children) were examined with the DFA assay as well as rRT-PCR as a gold standard for the detection and quantification of hMPV.**Results and conclusion:** Human MPV was detected in two cases by DFA and in four cases by rRT-PCR among hospitalized children with ARTIs. The DFA assay proved to be a highly specific test, yet with low sensitivity when compared to rRT-PCR. Most of hMPV-infected cases presented during the winter season, with January and February exhibiting the highest hMPV activity. Pneumonia was the most common presentation of ARTIs in hMPV-infected patients. Direct evaluation of respiratory specimens by DFA provides rapid results with low cost and a subsequent early medical management. However, its use should be restricted as a first-line approach, and a confirmatory test would be needed for a definite diagnosis.

Keywords: Direct Fluorescent Antibody Assay;Polymerase Chain Reaction;Human Metapneumovirus;Pneumonia;Infants.

189. Serology Versus Real Time Pcr in The Diagnosis of Human Brucellosis

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Journal Of Pure and Applied Microbiology, 11: 677-683 (2017)

With the unwelcome re-emergence of brucellosis in different regions of the world, an accurate and timely diagnosis of this zoonosis has become a daunting challenge. Due to the vague symptoms of the disease, laboratory confirmation is intensely needed to clinch a definite diagnosis. Consequently, reliable laboratory tests can play a pivotal role in proper diagnosis and disease management. Employing standard tube agglutination test (STAT) as the reference method, this study aimed to evaluate the performance of different serological tests as well as quantitative real time PCR (qPCR) in the diagnosis of human brucellosis. Out of 100 serum samples included in this study, 95 samples yielded positive result with STAT. The highest sensitivity (96%) was recovered with Rose Bengal (RB) test, while the sensitivities of ELISA and qPCR were 79% and 65% respectively. Meanwhile, RB test revealed a 100% specificity, while both ELISA and qPCR had specificities of 80% and 40% respectively. The RB test has proven to be a reliable and appropriate screening test for brucellosis. Likewise, ELISA is an attractive option. Meanwhile, STAT, which is accurate, cost-effective, and easy-to-use, remains the most appropriate test for the diagnosis of human brucellosis, particularly in endemic regions. While PCR may be costly and technically demanding for most laboratories, STAT can be very well adopted by laboratories established in low resource settings. It can provide a definite diagnosis of human brucellosis with minimal labor as well as an affordable cost.

Keywords: Brucellosis; Elisa; Qpcr; Stat; Zoonosis.

Dept. of Microbiology

190. Detection of Oxa-48-Carbapenemase-Producing Enterobacteriaceae Using Chromid Oxa-48 in Critical Care Patients in Egypt

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Journal Of Pure And Applied Microbiology, 11(4)1: 1655-1664 (2017)

Carbapenems are a class of beta-lactam antibiotics with broad spectrum of activity. They are often considered as a last resort in treatment of infections caused by multidrug resistant organisms. Carbapenemase-producing Enterobacteriaceae (CPE) have been reported worldwide. Class D OXA-48 carbapenemases is one of the most prevalent carbapenemases in Enterobacteriaceae. In the present study, we attempted to isolate carbapenemase-producing Enterobacteriaceae from different clinical specimens obtained from hospitalized patients at different ICU of kasr Al-Ainy hospital. Initial screening for carbapenemase producing Enterobacteriaceae was done using ertapenem disc diffusion method and direct inoculation of the specimens into ChromID OXA-48. The phenotypic Modified Hodge Test (MHT) was used for confirmation of carbapenemse production among screened carbapenem resistant isolates. Out of 112 collected samples, 94 Enterobacteriaceae were isolated. Fifty five isolates (58.5%) were ertapenem disc resistant and 50 isolates (53%) showed positive growth on ChromID OXA-48. Fifty two (94.5%) out of 55 suspected carbapenemase-producing isolates by disc diffusion

method and the 50 isolates (100%) grown on ChromID OXA-48 were MHT positive. Our study underlines the need to detect OXA-48 CPE as early as possible to minimize its spread in ICU and apply appropriate infection control measures.
Keywords: Enterobacteriaceae;Class D Oxa-48 Carbapenemase; Chromid Oxa-48;Modified Hodge Test..

Dept. of Neurology

191. Measuring Progress and Projecting Attainment on the Basis of Past Trends of the Health-Related Sustainable Development Goals in 188 Countries: an Analysis from the Global Burden Of Disease Study 2016.

Foad AbdElmoneim Abd-Allah

Lancet, 390: 1423-1459 (2017) IF: 47.831

Background: The UN's Sustainable Development Goals (SDGs) are grounded in the global ambition of "leaving no one behind". Understanding today's gains and gaps for the health-related SDGs is essential for decision makers as they aim to improve the health of populations. As part of the Global Burden of Diseases, Injuries, and Risk Factors Study 2016 (GBD 2016), we measured 37 of the 50 health-related SDG indicators over the period 1990-2016 for 188 countries, and then on the basis of these past trends, we projected indicators to 2030.**Methods:**We used standardised GBD 2016 methods to measure 37 health-related indicators from 1990 to 2016, an increase of four indicators since GBD 2015. We substantially revised the universal health coverage (UHC) measure, which focuses on coverage of essential health services, to also represent personal health-care access and quality for several non-communicable diseases. We transformed each indicator on a scale of 0-100, with 0 as the 2·5th percentile estimated between 1990 and 2030, and 100 as the 97·5th percentile during that time. An index representing all 37 health-related SDG indicators was constructed by taking the geometric mean of scaled indicators by target. On the basis of past trends, we produced projections of indicator values, using a weighted average of the indicator and country-specific annualised rates of change from 1990 to 2016 with weights for each annual rate of change based on out-of-sample validity. 24 of the currently measured health-related SDG indicators have defined SDG targets, against which we assessed attainment.**Findings:**Globally, the median health-related SDG index was 56·7 (IQR 31·9-66·8) in 2016 and country-level performance markedly varied, with Singapore (86·8, 95% uncertainty interval 84·6-88·9), Iceland (86·0, 84·1-87·6), and Sweden (85·6, 81·8-87·8) having the highest levels in 2016 and Afghanistan (10·9, 9·6-11·9), the Central African Republic (11·0, 8·8-13·8), and Somalia (11·3, 9·5-13·1) recording the lowest. Between 2000 and 2016, notable improvements in the UHC index were achieved by several countries, including Cambodia, Rwanda, Equatorial Guinea, Laos, Turkey, and China; however, a number of countries, such as Lesotho and the Central African Republic, but also high-income countries, such as the USA, showed minimal gains. Based on projections of past trends, the median number of SDG targets attained in 2030 was five (IQR 2-8) of the 24 defined targets currently measured. Globally, projected target attainment considerably varied by SDG indicator, ranging from more than 60% of countries projected to reach targets for under-5 mortality, neonatal mortality, maternal mortality ratio, and malaria, to less than 5% of countries projected to achieve targets linked to 11 indicator targets, including those for childhood overweight, tuberculosis, and road injury mortality. For several of the health-related SDGs, meeting defined targets hinges upon substantially faster progress than what most countries have achieved in the past.**Interpretation:**GBD 2016 provides an updated and expanded evidence base on where the world currently stands in terms of the health-related SDGs. Our improved measure of UHC offers a basis to monitor the expansion of health services necessary to meet the SDGs. Based on past rates of progress, many places are facing challenges in meeting defined health-related SDG targets, particularly among countries that are the worst off. In view of the early stages of SDG implementation, however, opportunity remains to take actions to accelerate progress, as shown by the catalytic effects of adopting the Millennium Development Goals after 2000. With the SDGs' broader, bolder development agenda, multisectoral commitments and investments are vital to make the health-related SDGs within reach of all populations.
Keywords: Gbd;Health-Related Sustainable Development Goals.

192. Global, Regional, and National Under-5 Mortality, Adult Mortality, Age-Specific Mortality, and Life Expectancy, 1970-2016: A Systematic Analysis for the Global Burden of Disease Study 2016.

Foad AbdElmoneim Abd-Allah

Lancet, 390: 1084-1150 (2017) IF: 47.831

Background: Detailed assessments of mortality patterns, particularly age-specific mortality, represent a crucial input that enables health systems to target interventions to specific populations. Understanding how all-cause mortality has changed with respect to development status can identify exemplars for best practice. To accomplish this, the Global Burden of Diseases, Injuries, and Risk Factors Study 2016 (GBD 2016) estimated age-specific and sex-specific all-cause mortality between 1970 and 2016 for 195 countries and territories and at the subnational level for the five countries with a population greater than 200 million in 2016. **Methods:** We have evaluated how well civil registration systems captured deaths using a set of demographic methods called death distribution methods for adults and from consideration of survey and census data for children younger than 5 years. We generated an overall assessment of completeness of registration of deaths by dividing registered deaths in each location-year by our estimate of all-age deaths generated from our overall estimation process. For 163 locations, including subnational units in countries with a population greater than 200 million with complete vital registration (VR) systems, our estimates were largely driven by the observed data, with corrections for small fluctuations in numbers and estimation for recent years where there were lags in data reporting (lags were variable by location, generally between 1 year and 6 years). For other locations, we took advantage of different data sources available to measure under-5 mortality rates (U5MR) using complete birth histories, summary birth histories, and incomplete VR with adjustments; we measured adult mortality rate (the probability of death in individuals aged 15-60 years) using adjusted incomplete VR, sibling histories, and household death recall. We used the U5MR and adult mortality rate, together with crude death rate due to HIV in the GBD model life table system, to estimate age-specific and sex-specific death rates for each

location-year. Using various international databases, we identified fatal discontinuities, which we defined as increases in the death rate of more than one death per million, resulting from conflict and terrorism, natural disasters, major transport or technological accidents, and a subset of epidemic infectious diseases; these were added to estimates in the relevant years. In 47 countries with an identified peak adult prevalence for HIV/AIDS of more than 0·5% and where VR systems were less than 65% complete, we informed our estimates of age-sex-specific mortality using the Estimation and Projection Package (EPP)-Spectrum model fitted to national HIV/AIDS prevalence surveys and antenatal clinic serosurveillance systems. We estimated stillbirths, early neonatal, late neonatal, and childhood mortality using both survey and VR data in spatiotemporal Gaussian process regression models. We estimated abridged life tables for all location-years using age-specific death rates. We grouped locations into development quintiles based on the Socio-demographic Index (SDI) and analysed mortality trends by quintile. Using spline regression, we estimated the expected mortality rate for each age-sex group as a function of SDI. We identified countries with higher life expectancy than expected by comparing observed life expectancy to anticipated life expectancy on the basis of development status alone. **Findings:** Completeness in the registration of deaths increased from 28% in 1970 to a peak of 45% in 2013; completeness was lower after 2013 because of lags in reporting. Total deaths in children younger than 5 years decreased from 1970 to 2016, and slower decreases occurred at ages 5-24 years. By contrast, numbers of adult deaths increased in each 5-year age bracket above the age of 25 years. The distribution of annualised rates of change in age-specific mortality rate differed over the period 2000 to 2016 compared with earlier decades: increasing annualised rates of change were less frequent, although rising annualised rates of change still occurred in some locations, particularly for adolescent and younger adult age groups. Rates of stillbirths and under-5 mortality both decreased globally from 1970. Evidence for global convergence of death rates was mixed; although the absolute difference between age-standardised death rates narrowed between countries at the lowest and highest levels of SDI, the ratio of these death rates-a measure of relative inequality-increased slightly. There was a strong shift between 1970 and 2016 toward higher life expectancy, most noticeably at higher levels of SDI. Among countries with populations greater than 1 million in 2016, life expectancy at birth was highest for women in Japan, at 86·9 years (95% UI 86·7-87·2), and for men in Singapore, at 81·3 years (78·8-83·7) in 2016. Male life expectancy was generally lower than female life expectancy between 1970 and 2016, and the gap between male and female life expectancy increased with progression to higher levels of SDI. Some countries with exceptional health performance in 1990 in terms of the difference in observed to expected life expectancy at birth had slower progress on the same measure in 2016.**Interpretation:** Globally, mortality rates have decreased across all age groups over the past five decades, with the largest improvements occurring among children younger than 5 years. However, at the national level, considerable heterogeneity remains in terms of both level and rate of changes in age-specific mortality; increases in mortality for certain age groups occurred in some locations. We found evidence that the absolute gap between countries in age-specific death rates has declined, although the relative gap for some age-sex groups increased. Countries that now lead in terms of having higher observed life expectancy than that expected on the basis of development alone, or locations that have either increased this advantage or rapidly decreased the deficit from expected levels, could provide insight into the means to accelerate progress in nations where progress has stalled.

Keywords: Systematic Analysis;Under-5 Mortality;Adult Mortality;Age-Specific Mortality;.

193. Global, Regional, and National Age-Sex Specific Mortality for 264 Causes of Death, 1980-2016: A Systematic Analysis for the Global Burden of Disease Study 2016.

Foad Abd Elmoneim Abd-Allah

Lancet, 390: 1151-1210 (2017) IF: 47.831

Background: Monitoring levels and trends in premature mortality is crucial to understanding how societies can address prominent sources of early death. The Global Burden of Disease 2016 Study (GBD 2016) provides a comprehensive assessment of cause-specific mortality for 264 causes in 195 locations from 1980 to 2016. This assessment includes evaluation of the expected epidemiological transition with changes in development and where local patterns deviate from these trends. **Methods:** We estimated cause-specific deaths and years of life lost (YLLs) by age, sex, geography, and year. YLLs were calculated from the sum of each death multiplied by the standard life expectancy at each age. We used the GBD cause of death database composed of: vital registration (VR) data corrected for under-registration and garbage coding; national and subnational verbal autopsy (VA) studies corrected for garbage coding; and other sources including surveys and surveillance systems for specific causes such as maternal mortality. To facilitate assessment of quality, we reported on the fraction of deaths assigned to GBD Level 1 or Level 2 causes that cannot be underlying causes of death (major garbage codes) by location and year. Based on completeness, garbage coding, cause list detail, and time periods covered, we provided an overall data quality rating for each location with scores ranging from 0 stars (worst) to 5 stars (best). We used robust statistical methods including the Cause of Death Ensemble model (CODEm) to generate estimates for each location, year, age, and sex. We assessed observed and expected levels and trends of cause-specific deaths in relation to the Socio-demographic Index (SDI), a summary indicator derived from measures of average income per capita, educational attainment, and total fertility, with locations grouped into quintiles by SDI. Relative to GBD 2015, we expanded the GBD cause hierarchy by 18 causes of death for GBD 2016.**Findings:** The quality of available data varied by location. Data quality in 25 countries rated in the highest category (5 stars), while 48, 30, 21, and 44 countries were rated at each of the succeeding data quality levels. Vital registration or verbal autopsy data were not available in 27 countries, resulting in the assignment of a zero value for data quality. Deaths from non-communicable diseases (NCDs) represented 72·3% (95% uncertainty interval [UI] 71·2-73·2) of deaths in 2016 with 19·3% (18·5-20·4) of deaths in that year occurring from communicable, maternal, neonatal, and nutritional (CMNN) diseases and a further 8·43% (8·00-8·67) from injuries. Although age-standardised rates of death from NCDs decreased globally between 2006 and 2016, total numbers of these deaths increased; both numbers and age-standardised rates of death from CMNN causes decreased in the decade 2006-16-age-standardised rates of deaths from injuries decreased but total numbers varied little. In 2016, the three leading global causes of death in children under-5 were lower respiratory infections, neonatal preterm birth

complications, and neonatal encephalopathy due to birth asphyxia and trauma, combined resulting in 1·80 million deaths (95% UI 1·59 million to 1·89 million). Between 1990 and 2016, a profound shift toward deaths at older ages occurred with a 178% (95% UI 176-181) increase in deaths in ages 90-94 years and a 210% (208-212) increase in deaths older than age 95 years. The ten leading causes by rates of age-standardised YLL significantly decreased from 2006 to 2016 (median annualised rate of change was a decrease of 2·89%); the median annualised rate of change for all other causes was lower (a decrease of 1·59%) during the same interval. Globally, the five leading causes of total YLLs in 2016 were cardiovascular diseases; diarrhoea, lower respiratory infections, and other common infectious diseases; neoplasms; neonatal disorders; and HIV/AIDS and tuberculosis. At a finer level of disaggregation within cause groupings, the ten leading causes of total YLLs in 2016 were ischaemic heart disease, cerebrovascular disease, lower respiratory infections, diarrhoeal diseases, road injuries, malaria, neonatal preterm birth complications, HIV/AIDS, chronic obstructive pulmonary disease, and neonatal encephalopathy due to birth asphyxia and trauma. Ischaemic heart disease was the leading cause of total YLLs in 113 countries for men and 97 countries for women. Comparisons of observed levels of YLLs by countries, relative to the level of YLLs expected on the basis of SDI alone, highlighted distinct regional patterns including the greater than expected level of YLLs from malaria and from HIV/AIDS across sub-Saharan Africa; diabetes mellitus, especially in Oceania; interpersonal violence, notably within Latin America and the Caribbean; and cardiomyopathy and myocarditis, particularly in eastern and central Europe. The level of YLLs from ischaemic heart disease was less than expected in 117 of 195 locations. Other leading causes of YLLs for which YLLs were notably lower than expected included neonatal preterm birth complications in many locations in both south Asia and southeast Asia, and cerebrovascular disease in western Europe.**Interpretation:**The past 37 years have featured declining rates of communicable, maternal, neonatal, and nutritional diseases across all quintiles of SDI, with faster than expected gains for many locations relative to their SDI. A global shift towards deaths at older ages suggests success in reducing many causes of early death. YLLs have increased globally for causes such as diabetes mellitus or some neoplasms, and in some locations for causes such as drug use disorders, and conflict and terrorism. Increasing levels of YLLs might reflect outcomes from conditions that required high levels of care but for which effective treatments remain elusive, potentially increasing costs to health systems.

Keywords: Systematic Analysis;Age;Sex Specific Mortality.

194. Global, Regional, and National Incidence, Prevalence, and Years Lived with Disability for 328 Diseases and Injuries for 195 Countries, 1990-2016: A Systematic Analysis for the Global Burden of Disease Study 2016.

Foad AbdElmoneim Abd-Allah

Lancet, 390: 1211-1259 (2017) IF: 47.831

Background: As mortality rates decline, life expectancy increases, and populations age, non-fatal outcomes of diseases and injuries are becoming a larger component of the global burden of disease. The Global Burden of Diseases, Injuries, and Risk Factors Study 2016 (GBD 2016) provides a comprehensive assessment of prevalence, incidence, and years lived with disability (YLDs) for 328 causes in 195 countries and territories from 1990 to 2016. **Methods:**We estimated prevalence and incidence for 328 diseases and injuries and 2982 sequelae, their non-fatal consequences. We used DisMod-MR 2.1, a Bayesian meta-regression tool, as the main method of estimation, ensuring consistency between incidence, prevalence, remission, and cause of death rates for each condition. For some causes, we used alternative modelling strategies if incidence or prevalence needed to be derived from other data. YLDs were estimated as the product of prevalence and a disability weight for all mutually exclusive sequelae, corrected for comorbidity and aggregated to cause level. We updated the Socio-demographic Index (SDI), a summary indicator of income per capita, years of schooling, and total fertility rate. GBD 2016 complies with the Guidelines for Accurate and Transparent Health Estimates Reporting (GATHER).**Findings:**Globally, low back pain, migraine, age-related and other hearing loss, iron-deficiency anaemia, and major depressive disorder were the five leading causes of YLDs in 2016, contributing 57·6 million (95% uncertainty interval [UI] 40·8-75·9 million [7·2%, 6·0-8·3]), 45·1 million (29·0-62·8 million [5·6%, 4·0-7·2]), 36·3 million (25·3-50·9 million [4·5%, 3·8-5·3]), 34·7 million (23·0-49·6 million [4·3%, 3·5-5·2]), and 34·1 million (23·5-46·0 million [4·2%, 3·2-5·3]) of total YLDs, respectively. Age-standardised rates of YLDs for all causes combined decreased between 1990 and 2016 by 2·7% (95% UI 2·3-3·1). Despite mostly stagnant age-standardised rates, the absolute number of YLDs from non-communicable diseases has been growing rapidly across all SDI quintiles, partly because of population growth, but also the ageing of populations. The largest absolute increases in total numbers of YLDs globally were between the ages of 40 and 69 years. Age-standardised YLD rates for all conditions combined were 10·4% (95% UI 9·0-11·8) higher in women than in men. Iron-deficiency anaemia, migraine, Alzheimer's disease and other dementias, major depressive disorder, anxiety, and all musculoskeletal disorders apart from gout were the main conditions contributing to higher YLD rates in women. Men had higher age-standardised rates of substance use disorders, diabetes, cardiovascular diseases, cancers, and all injuries apart from sexual violence. Globally, we noted much less geographical variation in disability than has been documented for premature mortality. In 2016, there was a less than two times difference in age-standardised YLD rates for all causes between the location with the lowest rate (China, 9201 YLDs per 100 000, 95% UI 6862-11943) and highest rate (Yemen, 14 774 YLDs per 100 000, 11 018-19 228). **Interpretation:**The decrease in death rates since 1990 for most causes has not been matched by a similar decline in age-standardised YLD rates. For many large causes, YLD rates have either been stagnant or have increased for some causes, such as diabetes. As populations are ageing, and the prevalence of disabling disease generally increases steeply with age, health systems will face increasing demand for services that are generally costlier than the interventions that have led to declines in mortality in childhood or for the major causes of mortality in adults. Up-to-date information about the trends of disease and how this varies between countries is essential to plan for an adequate health-system response.

Keywords: Years Lived With Disability;Systematic Analysis;Global Burden Of Disease.

195. Global, Regional, and National Disability-Adjusted Life-Years (Dalys) for 333 Diseases And Injuries and Healthy Life Expectancy (Hale) for 195 Countries and Territories, 1990-2016: A Systematic Analysis for the Global Burden of Disease Study 2016.

Foad AbdElmoneim Abd-Allah

Lancet, 390: 1260-1344 (2017) IF: 47.831

Background Measurement of changes in health across locations is useful to compare and contrast changing epidemiological patterns against health system performance and identify specific needs for resource allocation in research, policy development, and programme decision making. Using the Global Burden of Diseases, Injuries, and Risk Factors Study 2016, we drew from two widely used summary measures to monitor such changes in population health: disability-adjusted life-years (DALYs) and healthy life expectancy (HALE). We used these measures to tracktrends and benchmark progress compared with expected trends on the basis of the Socio-demographic Index (SDI). Methods We used results from the Global Burden of Diseases, Injuries, and Risk Factors Study 2016 for all-cause mortality, cause-specific mortality, and non-fatal disease burden to derive HALE and DALYs by sex for 195 countries and territories from 1990 to 2016. We calculated DALYs by summing years of life lost and years of life lived with disability for eachlocation, age group, sex, and year. We estimated HALE using age-specific death rates and years of life lived with disability per capita. We explored how DALYs and HALE differed from expected trends when compared with the SDI: the geometric mean of income per person, educational attainment in the population older than age 15 years, and total fertility rate. Findings The highest globally observed HALE at birth for both women and men was in Singapore, at 75·2 years(95% uncertainty interval 71·9–78·6) for females and 72·0 years (68·8–75·1) for males. The lowest for females was in the Central African Republic (45·6 years [42·0–49·5]) and for males was in Lesotho (41·5 years [39·0–44·0]). From 1990 to 2016, global HALE increased by an average of 6·24 years (5·97–6·48) for both sexes combined. Global HALE increased by 6·04 years (5·74–6·27) for males and 6·49 years (6·08–6·77) for females, whereas HALE at age 65 years increased by 1·78 years (1·61–1·93) for males and 1·96 years (1·69–2·13) for females. Total global DALYs remainedlargely unchanged from 1990 to 2016 (–2·3% [–5·9 to 0·9]), with decreases in communicable, maternal, neonatal, and nutritional (CMNN) disease DALYs offset by increased DALYs due to non-communicable diseases (NCDs). The exemplars, calculated as the five lowest ratios of observed to expected age-standardised DALY rates in 2016, were Nicaragua, Costa Rica, the Maldives, Peru, and Israel. The leading three causes of DALYs globally were ischaemic heart disease, cerebrovascular disease, and lower respiratory infections, comprising 16·1% of all DALYs. Total DALYs and age-standardised DALY rates due to most CMNN causes decreased from 1990 to 2016. Conversely, the total DALY burden rose for most NCDs; however, age-standardised DALY rates due to NCDs declined globally.Interpretation At a global level, DALYs and HALE continue to show improvements. At the same time, we observe that many populations are facing growing functional health loss. Rising SDI was associated with increases in cumulative years of life lived with disability and decreases in CMNN DALYs offset by increased NCD DALYs. Relative compression of morbidity highlights the importance of continued health interventions, which has changed in most locations in pace with the gross domestic product per person, education, and family planning. The analysis of DALYs and HALE and their relationship to SDI represents a robust framework with which to benchmark location-specific health performance. Country-specific drivers of disease burden, particularly for causes with higher-than-expected DALYs, should inform health policies, health system improvement initiatives, targeted prevention efforts, and development assistance for health, including financial and research investments for all countries, regardless of their level of sociodemographic development. The presence of countries that substantially outperform others suggests the need for increased scrutiny for proven examples of best practices, which can help to extend gains, whereas the presence of underperformingcountries suggests the need for devotion of extra attention to health systems that need more robust support.

Keywords: Systematic Analysis;Disability-Adjusted Life-Years (Dalys).

196. Global, Regional, and National Comparative Risk Assessment of 84 Behavioural, Environmental and Occupational, and Metabolic Risks or Clusters of Risks, 1990-2016: A Systematic Analysis for the Global Burden of Disease Study 2016.

Foad AbdElmoneim Abd-Allah

Lancet, 390: 1345-1422 (2017) IF: 47.831

Background: The Global Burden of Diseases, Injuries, and Risk Factors Study 2016 (GBD2016) provides a comprehensive assessment of risk factor exposure and attributable burden ofdisease. By providing estimates over a long time series, this study can monitor risk exposuretrends critical to health surveillance and inform policy debates on the importance of addressingrisks in context. Methods—We used the comparative risk assessment framework developed for previous iterations of GBD to estimate levels and trends in exposure, attributable deaths, and attributable disabilityadjusted life-years (DALYs), by age group, sex, year, and location for 84 behavioural, environmental and occupational, and metabolic risks or clusters of risks from 1990 to 2016. This study included 481 risk-outcome pairs that met the GBD study criteria for convincing or probable evidence of causation. We extracted relative risk (RR) and exposure estimates from 22 717randomised controlled trials, cohorts, pooled cohorts, household surveys, census data, satellite data, and other sources, according to the GBD 2016 source counting methods. Using thecounterfactual scenario of theoretical minimum risk exposure level (TMREL), we estimated theportion of deaths and DALYs that could be attributed to a given risk. Finally, we explored fourdrivers of trends in attributable burden: population growth, population ageing, trends in riskexposure, and all other factors combined. **Findings:**Since 1990, exposure increased significantly for 30 risks, did not change significantly for four risks, and decreased significantly for 31 risks. Among risks that are leading causes of burden of disease, child growth failure and household air pollution showed the most significant declines, while metabolic risks, such as body-mass index and high fasting plasma glucose, showed significant increases. In 2016, at Level 3 of the hierarchy, the three leading risk factors in terms ofattributable DALYs at the global level for men were smoking (124·1 million DALYs [95% UI 11 1·2 million to 137·0 million]), high systolic blood pressure (122·2 million DALYs

[110·3 million to 133·3 million], and low birthweight and short gestation (83·0 million DALYs [78·3 million to 87·7 million]), and for women, were high systolic blood pressure (89·9 million DALYs [80·9 million to 98·2 million]), high body-mass index (64·8 million DALYs [44·4 million to 87·6 million]), and high fasting plasma glucose (63·8 million DALYs [53·2 million to 76·3 million]). In 2016 in 113 countries, the leading risk factor in terms of attributable DALYs was a metabolic risk factor. Smoking remained among the leading five risk factors for DALYs for 109 countries, while low birthweight and short gestation was the leading risk factor for DALYs in 38 countries,particularly in sub-Saharan Africa and South Asia. In terms of important drivers of change in trends of burden attributable to risk factors, between 2006 and 2016 exposure to risks explains an 9·3% (6·9–11·6) decline in deaths and a 10·8% (8·3–13·1) decrease in DALYs at the global level, while population ageing accounts for 14·9% (12·7–17·5) of deaths and 6·2% (3·9–8·7) of DALYs, and population growth for 12·4% (10·1–14·9) of deaths and 12·4% (10·1–14·9) of DALYs. The largest contribution of trends in risk exposure to disease burden is seen between ages 1 year and 4 years, where a decline of 27·3% (24·9–29·7) of the change in DALYs between 2006 and 2016 can be attributed to declines in exposure to risks. Interpretation—Increasingly detailed understanding of the trends in risk exposure and the RRs for each risk-outcome pair provide insights into both the magnitude of health loss attributable to risks and how modification of risk exposure has contributed to health trends. Metabolic risks warrant particular policy attention, due to their large contribution to global disease burden, increasing trends, and variable patterns across countries at the same level of development. GBD 2016 findings show that, while it has huge potential to improve health, risk modification has played a relatively small part in the past decade.

Keywords: Systematic Analysis.

197.Healthcare Access and Quality Index Based on Mortality from Causes Amenable to Personal Health Care in 195 Countries and Territories, 1990-2015: A Novel Analysis from the Global Burden of Disease Study 2015.

Foad AbdElmoneim Abd-Allah

Lancet, 390(10091): 231-266 (2017) IF: 47.831

Background: National levels of personal health-care access and quality can be approximated by measuring mortality rates from causes that should not be fatal in the presence of effective medical care (ie, amenable mortality). Previous analyses of mortality amenable to health care only focused on high-income countries and faced several methodological challenges. In the present analysis, we use the highly standardised cause of death and risk factor estimates generated through the Global Burden of Diseases, Injuries, and Risk Factors Study (GBD) to improve and expand the quantification of personal health-care access and quality for 195 countries and territories from 1990 to 2015.**Methods:**We mapped the most widely used list of causes amenable to personal health care developed by Nolte and McKee to 32 GBD causes. We accounted for variations in cause of death certification and misclassifications through the extensive data standardisation processes and redistribution algorithms developed for GBD. To isolate the effects of personal health-care access and quality, we risk-standardised cause-specific mortality rates for each geography-year by removing the joint effects of local environmental and behavioural risks, and adding back the global levels of risk exposure as estimated for GBD 2015. We employed principal component analysis to create a single, interpretable summary measure-the Healthcare Quality and Access (HAQ) Index-on a scale of 0 to 100. The HAQ Index showed strong convergence validity as compared with other health-system indicators, including health expenditure per capita (r=0·88), an index of 11 universal health coverage interventions (r=0·83), and human resources for health per 1000 (r=0·77). We used free disposal hull analysis with bootstrapping to produce a frontier based on the relationship between the HAQ Index and the Socio-demographic Index (SDI), a measure of overall development consisting of income per capita, average years of education, and total fertility rates. This frontier allowed us to better quantify the maximum levels of personal health-care access and quality achieved across the development spectrum, and pinpoint geographies where gaps between observed and potential levels have narrowed or widened over time.**Findings:** Between 1990 and 2015, nearly all countries and territories saw their HAQ Index values improve; nonetheless, the difference between the highest and lowest observed HAQ Index was larger in 2015 than in 1990, ranging from 28·6 to 94·6. Of 195 geographies, 167 had statistically significant increases in HAQ Index levels since 1990, with South Korea, Turkey, Peru, China, and the Maldives recording among the largest gains by 2015. Performance on the HAQ Index and individual causes showed distinct patterns by region and level of development, yet substantial heterogeneities emerged for several causes, including cancers in highest-SDI countries; chronic kidney disease, diabetes, diarrhoeal diseases, and lower respiratory infections among middle-SDI countries; and measles and tetanus among lowest-SDI countries. While the global HAQ Index average rose from 40·7 (95% uncertainty interval, 39·0-42·8) in 1990 to 53·7 (52·2-55·4) in 2015, far less progress occurred in narrowing the gap between observed HAQ Index values and maximum levels achieved; at the global level, the difference between the observed and frontier HAQ Index only decreased from 21·2 in 1990 to 20·1 in 2015. If every country and territory had achieved the highest observed HAQ Index by their corresponding level of SDI, the global average would have been 73·8 in 2015. Several countries, particularly in eastern and western sub-Saharan Africa, reached HAQ Index values similar to or beyond their development levels, whereas others, namely in southern sub-Saharan Africa, the Middle East, and south Asia, lagged behind what geographies of similar development attained between 1990 and 2015.**Interpretation:**This novel extension of the GBD Study shows the untapped potential for personal health-care access and quality improvement across the development spectrum. Amid substantive advances in personal health care at the national level, heterogeneous patterns for individual causes in given countries or territories suggest that few places have consistently achieved optimal health-care access and quality across health-system functions and therapeutic areas. This is especially evident in middle-SDI countries, many of which have recently undergone or are currently experiencing epidemiological transitions. The HAQ Index, if paired with other measures of health-system characteristics such as intervention coverage, could provide a robust avenue for tracking progress on universal health coverage and identifying local priorities for strengthening personal health-care quality and access throughout the world.

Keywords: Healthcare Access and Quality Index;Amenable To Personal Health Care.

198. Global, Regional, and National Burden of Neurological Disorders During 1990-2015: A Systematic Analysis for the Global Burden of Disease Study 2015.

Foad AbdElmoneim Abd-Allah

Lancet Neurology, 16(11): 877-897 (2017) IF: 26.284

Background Comparable data on the global and country-specific burden of neurological disorders and their trends are crucial for health-care planning and resource allocation. The Global Burden of Diseases, Injuries, and Risk Factors (GBD) Study provides such information but does not routinely aggregate results that are of interest to clinicians specialising in neurological conditions. In this systematic analysis, we quantified the global disease burden due to neurological disorders in 2015 and its relationship with country development level. Methods We estimated global and country-specific prevalence, mortality, disability-adjusted life-years (DALYs), years of life lost (YLLs), and years lived with disability (YLDs) for various neurological disorders that in the GBD classification have been previously spread across multiple disease groupings. The more inclusive grouping of neurological disorders included stroke, meningitis, encephalitis, tetanus, Alzheimer's disease and other dementias, Parkinson's disease, epilepsy, multiple sclerosis, motor neuron disease, migraine, tension-type headache, medication overuse headache, brain and nervous system cancers, and a residual category of other neurological disorders. We also analysedresults based on the Socio-demographic Index (SDI), a compound measure of income per capita, education, and fertility, to identify patterns associated with development and how countries fare against expected outcomes relative to their level of development.Findings Neurological disorders ranked as the leading cause group of DALYs in 2015 (250·7 [95% uncertainty interval (UI) 229·1 to 274·7] million, comprising 10·2% of global DALYs) and the second-leading cause group of deaths (9·4 [9·1 to 9·7] million], comprising 16·8% of global deaths). The most prevalent neurological disorders were tension type headache (1505·9 [UI 1337·3 to 1681·6 million cases]), migraine (958·8 [872·1 to 1055·6] million), medication overuse headache (58·5 [50·8 to 67·4 million]), and Alzheimer's disease and other dementias (46·0[40·2 to 52·7 million]). Between 1990 and 2015, the number of deaths from neurological disorders increased by 36·7%, and the number of DALYs by 7·4%. These increases occurred despite decreases in age-standardised rates of death and DALYs of 26·1% and 29·7%, respectively; stroke and communicable neurological disorders were responsible for most of these decreases. Communicable neurological disorders were the largest cause of DALYs in countries with low SDI. Stroke rates were highest at middle levels of SDI and lowest at the highest SDI. Most of thechanges in DALY rates of neurological disorders with development were driven by changes in YLLs. Interpretation Neurological disorders are an important cause of disability and death worldwide. Globally, the burden of neurological disorders has increased substantially over the past 25 years because of expanding population numbers and ageing, despite substantial decreases in mortality rates from stroke and communicable neurological disorders.The number of patients who will need care by clinicians with expertise in neurological conditions will continue to grow in coming decades. Policy makers and health-care providers should be aware of these trends to provide adequate services.

Keywords: Neurological Disorders;Systematic Analysis.

199.Global, Regional, and National Burden of Cardiovascular Diseases for 10 Causes, 1990 to 2015.

Foad AbdElmoneim Abd-Allah. *Et all*

Journal Of The American College Of Cardiology, 70: 1-25 (2017) IF: 19.896

Background: The burden of cardiovascular diseases (CVDs) remains unclear in many regions of the world. OBJECTIVES: The GBD (Global Burden of Disease) 2015 study integrated data on disease incidence, prevalence, and mortality to produce consistent, up-to-date estimates for cardiovascular burden. **Methods:** CVD mortality was estimated from vital registration and verbal autopsy data. CVD prevalence was estimated using modeling software and data from health surveys, prospective cohorts, health system administrative data, and registries. Years lived with disability (YLD) were estimated by multiplying prevalence by disability weights. Years of life lost (YLL) were estimated by multiplying age-specific CVD deaths by a reference life expectancy. A sociodemographic index (SDI) was created for each location based on income per capita, educational attainment, and fertility.**Results:**In 2015, there were an estimated 422.7 million cases of CVD (95% uncertainty interval: 415.53 to 427.87 million cases) and 17.92 million CVD deaths (95% uncertainty interval: 17.59 to 18.28 million CVD deaths). Declines in the age-standardized CVD death rate occurred between 1990 and 2015 in all high-income and some middle-income countries. Ischemic heart disease was the leading cause of CVD health lost globally, as well as in each world region, followed by stroke. As SDI increased beyond 0.25, the highest CVD mortality shifted from women to men. CVD mortality decreased sharply for both sexes in countries with an SDI >0.75**. Conclusions:**CVDs remain a major cause of health loss for all regions of the world. Sociodemographic change over the past 25 years has been associated with dramatic declines in CVD in regions with very high SDI, but only a gradual decrease or no change in most regions. Future updates of the GBD study can be used to guide policymakers who are focused on reducing the overall burden of noncommunicable disease and achieving specific global health targets for CVD.

Keywords: Cause Of Death;Epidemiology;Global Health.

200.Strategies to Improve Stroke Care Services in Low- and Middle-Income Countries: A Systematic Review

Pandian JD1, William AG, Kate MP, Norrving B, Mensah GA, Davis S, Roth GA, Thrift AG, Kengne AP, Kissela BM, Yu C, Kim D, Rojas-Rueda D, Tirschwell DL, Abd-Allah F, Gankpé F, deVeber G, Hankey GJ, Jonas JB, Sheth KN, Dokova K, Mehndiratta MM, Geleijnse JM, Giroud M, Bejot Y, Sacco R, Sahathevan R, Hamadeh RR, Gillum R, Westerman R, Akinyemi RO, Barker-Collo S, Truelsen T, Caso V, Rajagopalan V, Venketasubramanian N, Vlassovi VV, Feigin VL*Neuroepidemiology, 49: 45-61 (2017) IF: 2.886*

Background: The burden of stroke in low- and middle-income countries (LMICs) is large and increasing, challenging the already stretched health-care services. AIMS AND OBJECTIVES: To determine the quality of existing stroke-care services in LMICs and to highlight indigenous, inexpensive, evidence-based implementable strategies being used in stroke-care**. Methods:**A detailed literature search was undertaken using PubMed and

Google scholar from January 1966 to October 2015 using a range of search terms. Of 921 publications, 373 papers were shortlisted and 31 articles on existing stroke-services were included. RESULTS: We identified efficient models of ambulance transport and pre-notification. Stroke Units (SU) are available in some countries, but are relatively sparse and mostly provided by the private sector. Very few patients were thrombolysed; this could be increased with telemedicine and governmental subsidies. Adherence to secondary preventive drugs is affected by limited availability and affordability, emphasizing the importance of primary prevention. Training of paramedics, care-givers and nurses in post-stroke care is feasible. **Conclusion:** In this systematic review, we found several reports on evidence-based implementable stroke services in LMICs. Some strategies are economic, feasible and reproducible but remain untested. Data on their outcomes and sustainability is limited. Further research on implementation of locally and regionally adapted stroke-services and cost-effective secondary prevention programs should be a priority.

Keywords: Low And Middle Income Countries (Lmics);Pre-Hospital Stroke Transport;Strategies;Stroke Services;Stroke Units.

201. The Burden of Mental Disorders in the Eastern Mediterranean Region, 1990-2013.

Foad AbdElmoneim Abd-Allah, *Et all*

Plos One, 12: 0-169575 (2017) IF: 2.806

The Eastern Mediterranean Region (EMR) is witnessing an increase in chronic disorders, including mental illness. With ongoing unrest, this is expected to rise. This is the first study to quantify the burden of mental disorders in the EMR. We used data from the Global Burden of Disease study (GBD) 2013. DALYs (disability-adjusted life years) allow assessment of both premature mortality (years of life lost-YLLs) and nonfatal outcomes (years lived with disability-YLDs). DALYs are computed by adding YLLs and YLDs for each age-sex-country group. In 2013, mental disorders contributed to 5.6% of the total disease burden in the EMR (1894 DALYS/100,000 population): 2519 DALYS/100,000 (2590/100,000 males, 2426/100,000 females) in high-income countries, 1884 DALYS/100,000 (1618/100,000 males, 2157/100,000 females) in middle-income countries, 1607 DALYS/100,000 (1500/100,000 males, 1717/100,000 females) in low-income countries. Females had a greater proportion of burden due to mental disorders than did males of equivalent ages, except for those under 15 years of age. The highest proportion of DALYs occurred in the 25-49 age group, with a peak in the 35-39 years age group (5344 DALYs/100,000). The burden of mental disorders in EMR increased from 1726 DALYs/100,000 in 1990 to 1912 DALYs/100,000 in 2013 (10.8% increase). Within the mental disorders group in EMR, depressive disorders accounted for most DALYs, followed by anxiety disorders. Among EMR countries, Palestine had the largest burden of mental disorders. Nearly all EMR countries had a higher mental disorder burden compared to the global level. Our findings call for EMR ministries of health to increase provision of mental health services and to address the stigma of mental illness. Moreover, our results showing the accelerating burden of mental health are alarming as the region is seeing an increased level of instability. Indeed, mental health problems, if not properly addressed, will lead to an increased burden of diseases in the region.

Keywords: Mental Disorders;The Eastern Mediterranean Region.

202. Development and Validation of an Arabic-Language Headache Questionnaire for Population-Based Surveys

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Journal Of Pain Research, 10: 1289-1295 (2017) IF: 2.581

Background: The reported prevalence of headache disorders in Arab regions varies consid- erable between countries. This may be due to a lack of standardized survey instruments that capture the prevalence. Purpose of the study: Our goal was to construct and validate a structured headache question- naire for Arabic-speaking headache patients to be used as an epidemiological survey instrument. **Methods:** We developed a culturally adapted interviewer-administered questionnaire in Arabic language comprising two sets of questions. The rst set included personal and sociodemographic data together with a screening question regarding the presence of headaches over the last year. The second set was designed to de ne the type and pattern of headaches according to the International Classi cation of Headache Disorders criteria (for subjects with "yes" answers on the screening question). Validation process took place in two phases through probability random sampling selected from 1,221 headache subjects collected in an epidemiological survey 3 (n=70) and 6 months (n=232) later. A detailed assessment of patients' headaches was performed by neurolo- gists (blinded from the questionnaire diagnosis) who clinically assessed the patients' headache. **Results:** The validity of the questionnaire was tested in 232 subjects with a mean age of 41.2±10.9 years, 72.8% of whom were females. The mean time to complete the questionnaire was 8.4±1.7 minutes. The intraclass correlation coef cient was 0.903 (95% con dence interval: 0.875–0.925), the Cronbach κ coef cient was 0.775 (95% con dence interval: 0.682–0.837), and the percentage of agreement was 84.5%. **Conclusion:** Our results support the use of this comprehensive questionnaire as a valid tool for headache assessment among Arabic-speaking patients

Keywords: Arabic;Egypt;Headache;Questionnaire;Validation.

203. Clinical Patterns and Outcome of Status Epilepticus in Patients with Tuberous Sclerosis Complex

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Therapeutics And Clinical Risk Management, 13: 779-785 (2017) IF: 2.2

Introduction: Refractory epilepsy is a common clinical manifestation in patients with tuberous sclerosis complex (TSC), which can be complicated by many life-threatening conditions, such as status epilepticus (SE). However, very few reports mention the patterns and semiology of SE in those patients.Objective:To study the clinical characteristics and

outcomes of SE in TSC patients.**Materials and methods:**This observational, prospective study was carried out on 36 Egyptian children with definite TSC. Clinical history, general and neurological examination and psychometric evaluation by standard questionnaires were used to explore characteristics of epileptic manifestations and clinical patterns of SE. All included patients were required to have long-term video electroencephalograms (EEGs) and brain MRI performed.Results: A total of 32 attacks of SE were recorded in 21 patients (58.3%) in our cohort during a follow-up period of 2.8±1.1 years; of those patients, 15 had convulsive status, 7 had non-convulsive SE, 6 had refractory/super-refractory SE and 14 patients had a history of infantile spasms (epileptic spasms). The duration of status ranged from 40 to 150 min (mean ± standard deviation: 90±15). Fourteen patients with SE had severe mental retardation, 9 had autistic spectrum disorder and 22 had severe epileptogenic EEG findings. Patients with SE had higher tuber numbers (mean: 9.6), 5 patients had subependymal giant cell astrocytomas and 2 patients had their SE after receiving everolimus. **Conclusions :** The incidence of SE in our patient sample is high (>50%); severe mental retardation, autistic features, history of infantile spasm (epileptic spasms) and high tuber burden are risk factors for developing SE.

Keywords: Egyptian Children;Tuberous Sclerosis;Status Epilepticus;Infantile Spasms;Autistic Spectrum.

204Effect of Shock Wave Therapy on Ankle Plantar Flexors Spasticity in Stroke Patients.

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Neurorehabilitation, 40: 115-118 (2017) IF: 1.495

Background: Large number of patients with first-ever stroke developed spasticity. Spasticity can reduce the range of motion, hinder voluntary movements, provoke pain, and result in impairment of functional activities of daily living. **Objective:**Demonstrate the effect of shock wave therapy on ankle plantar flexors spasticity in stroke patients. **Methods:** We included forty ischemic stroke patients divided into 2 groups; group I were subjected to the selected physical therapy program and shock wave therapy whereas group II received the selected physical therapy program as well as placebo shock wave for six weeks. Both groups were subjected to pre- and post-treatment assessment by H/M ratio, dorsiflexion active range of motion, and time of ten-meters walking. **Results:** Baseline characteristics showed no significant difference between the two groups regarding the grades of spasticity. Whereas After treatment, there were a highly significant difference between both groups regarding the grades of spasticity according to the 3 parameters, H/M ratio, dorsiflexion active range of motion, and time of ten-meters walking test (P values; <0.001, 0.006, and 0.009 respectively). **Conclusions:** Shock wave therapy is effective in controlling spasticity, increase dorsiflexion active range of motion of ankle and improving ten- meters walking test in stroke patients.

Keywords: H/M Ratio;Stroke;Extra Corporeal Shock Wave Therapy;Spasticity.

205. Carpal Tunnel Syndrome Grading Using High-Resolution Ultrasonography

Hala R. El Habashy, Reem A. El Hadidy, Sandra M. Ahmed, Basma B. El Sayed and Aya S. Ahmed

Journal Of Clinical Neurophysiology, 34: 353-358 (2017) IF: 1.224

Purpose: Carpal tunnel syndrome (CTS) is a common entrapment neuropathy of the wrist. The diagnosis of CTS has been a concern for physicians for a long time. The aim of this study is to evaluate the use of the median nerve (MN) cross-sectional area (CSA) in the wrist compared with the CSA in the forearm to grade the severity of CTS in Egyptian patients. **Methods:** The CSAs of the MN in the wrist and forearm were measured in 72 wrists that were diagnosed with CTS via nerve conduction studies and 80 healthy wrists. The CTS group was subdivided into three subgroups (mild, moderate, and severe CTS). The ratio of the CSA of the MN in the wrist to that in the forearm was used to calculate cutoff values for CTS grading. **Results:** There were positive correlations between the CSAs of the MN in the wrist and MN conduction latency. At a wrist–forearm ratio of 1.7, the high-resolution ultrasonography showed 96.1% accuracy in the detection of CTS. **Conclusions:** High-resolution ultrasonography can be used in CTS grading.

Keywords: Carpal Tunnel Syndrome Grading;Median Nerve Cross-Sectional Area;High-Resolution Ultrasonography.

206. Frontal Theta/Beta Ratio Changes During Tova in Egyptian Adhd Children

Halawa IF1, El Sayed BB, Amin OR, Meguid NA and Abdel Kader AA.

Neurosciences, 22: 287-291 (2017) IF: 0.552

Objective: To spot the frontal theta/beta ratio alterations during Tests of Variance of Attention (TOVA) in Egyptian attention deficit hyperactivity disorder (ADHD) children.**Methods:**This is a cross sectional study performed in Clinical Neurophysiology Unit, Cairo University, Egypt. It included 2 groups, each of 52 children (one of them with ADHD and the other were normal control). EEG was recorded for every subject during normal relaxing circumstance with eyes opened as well as during TOVA.**Results:**Comparing both groups revealed statistically significant difference in the theta/beta ratio in both state (normal relaxing with eyes opened and during TOVA), also we found that the theta/beta ratio decreased in normal group (during concentration) while in the ADHD group it increased with a specific pattern. **Conclusion:**The theta/beta ratio can be of value in helping for differential diagnosis in patients presenting with mild ADHD.

Keywords: Frontal Theta\Beta Ratio;Adhd.

Dept. of NeuroSurgery

207. A New Score to Predict the Risk of Hearing Impairment After Microvascular Decompression for Hemifacial Spasm

Ahmed El Damaty, Christian Rosenstengel, Marc Matthes, Joerg Baldauf, Oliver Dziemba, Werner Hosemann and Henry W S Schroeder

Neurosurgery, 81: 834-843 (2017) IF: 4.889

Background: Intraoperative monitoring of brainstem auditory evoked potentials (BAEPs) has been implemented to reduce the risk of hearing impairment during microvascular decompression for hemifacial spasm.**Objective :** To evaluate intraoperative monitoring of BAEPs during microvascular decompression in patients with hemifacial spasm for predicting the risk of hearing impairment after surgery. **Methods :** This prospective study included 100 patients. BAEPs were recorded for all patients. We established a scoring system for the changes in wave I amplitude, I-III interpeak latency, and wave V amplitude and latency. For each change, total points were calculated, and a score out of 6 was assigned to every patient. We classified the patients based on the points scored into 3 risk **groups:** low-risk (0-3), medium-risk (4-5), and high-risk (6). Further, the correlation between the score and the hearing outcome was evaluated to detect the incidence and degree of hearing impairment. **Results:** Eighty-seven patients scored 0 to 3, 10 scored 4 to 5, and 3 scored 6. The degree of hearing impairment was proportionate to the score recorded at the end of surgery, and patients in the low-risk group showed no impairment; medium-risk group, deterioration of maximum 2 grades according to World Health Organization classification of hearing impairment; and high-risk group, deterioration of 3 to 4 grades. **Conclusion:** Intraoperative monitoring of BAEPs evaluated through our scoring system was valuable in predicting hearing impairment after surgery.

Keywords: Baeps;Endoscope Assisted;Hemifacial Spasm; Intraoperative Monitoring;Microvascular Decompression.

208. Neuronavigation and 3D Fluoroscopy-Guided Lag Screw Reduction and Osteosynthesis for Traumatic Spondylolistheses of the Axis: A Path Worth Exploring?

Zeden JP, Müller JU, El Refaee EAM, Schroeder HWS and Pillich DT

Neurosurgical Focus, 43: 0-0 (2017) IF: 3.139

Objective In traumatic spondylolistheses of the axis, there is a marked heterogeneity of the observed injury patterns, with a wide range of the severity-from stable fractures, which can be treated conservatively with very good success, to highly unstable fractures, which should be treated surgically. A number of classification systems have been devised to assess the instability of the injuries and to derive a corresponding therapy recommendation. In particular, the results and recommendations regarding medium-severity cases are still inconclusive. Minimally invasive percutaneous procedures performed using modern techniques such as 3D fluoroscopy and neuronavigation have the potential for improvements in the therapeutic outcome and procedural morbidity against open surgical procedures and conservative therapy**. Methods**A minimally invasive method using 3D fluoroscopy and neuronavigation for percutaneous lag screw osteosynthesis of the pars interarticularis was performed in 12 patients with a Levine-Edwards Type II fracture. Ten patients had an isolated hangman's fracture and 2 patients had an additional odontoid fracture of the axis (Type II according to the Anderson and D'Alonzo classification system). Complications, operating parameters, screw positions, and bony fusion were evaluated for the description and evaluation of the technique. RESULTS In 6 men and 6 women, percutaneous lag screw osteosynthesis was performed successfully. Correct placement could be verified postoperatively for all inserted screws. In the case series, nonunion was not observed. In all patients with a complete follow-up, a bony fusion, an intact vertebral alignment, and no deformity could be detected on CT scans obtained after 3 months. **Conclusions** The percutaneous pars interarticularis lag screw osteosynthesis is a minimally invasive and mobility-preserving surgical technique. Its advantages over alternative methods are its minimal invasiveness, a shortened treatment time, and high fusion rates. The benefits are offset by the risk of injury to the vertebral arteries. The lag screw osteosynthesis is only possible with Levine-Edwards Type II fractures, because the intervertebral joints to C-3 are functionally preserved. A further development and evaluation of the operative technique as well as comparison with conservative and alternative surgical treatment options are deemed necessary.

Keywords: Judet Osteosynthesis;L-E = Levine-Edwards;Hangman'S Fracture;Lag Screw Osteosynthesis;Minimally Invasive Surgery;Traumatic Spondylolisthesis Of The Axis.

209. Four-Hand Suction-Irrigation Technique Leads to Gross Total Resection and Long-Term Progression-Free Survival in Fourth Ventricular Ependymoma.

Marx S, El Refaee E, Langner S and Schroeder HWS

World Neurosurgery, 107: 437-444 (2017) IF: 2.592

Background: Gross total resection is often avoided in posterior fossa ependymoma surgery because of the fear of permanent neurologic deficits after operation. However, the extent of resection is a major prognostic factor for progression-free and overall survival. This study evaluates the outcome of posterior fossa ependymoma gross total resection in adult patients using a 4-hand suction-irrigation technique at the floor of the fourth ventricle.**Methods:**All surgical procedures for posterior fossa ependymomas performed since 2001 in the Department of Neurosurgery, University Medicine Greifswald were analyzed.**Results:**Eight patients (2 women and 6 men; mean age, 41.9 years; range, 29-56 years) underwent surgery for posterior fossa ependymoma. All tumors were World Health Organization grade II. Tumor adherence was found to be in the caudal rhomboid fossa (between the obex and striae medullare, but below the facial colliculus) in all patients. The 4-hand suction-irrigation technique led to gross total resection in all patients (100%), without significant permanent neurologic deficits after surgery. None of the patients got further treatment (chemotherapy, radiation therapy, or second surgery). In none of these patients, tumor recurrence was seen on magnetic resonance imaging after a mean follow-up of 102 months (range, 14-181 months).**Conclusions:**Long-term progression-free survival in adult patients suffering from posterior fossa ependymoma is

possible by gross total resection without adjuvant radio- or chemotherapy. By careful bimanual microsurgical dissection using the 4-hand suction-irrigation technique and avoidance of bipolar coagulation on the floor of the fourth ventricle, the risk for permanent neurologic deficits is low.
Keywords: Four-Hand Suction-Irrigation Technique;Gross Total Resection;Long-Term Follow-Up;Posterior Fossa Ependymoma.

210. Neuroendoscopic Approach to Intracranial Ependymal Cysts

Ahmed El Damaty, Sascha Marx, Steffen Fleck and Henry W.S. Schroeder

World Neurosurgery, 97: 383-389 (2017) IF: 2.592

Background: Intraparenchymal cysts without communication to the ventricles or the subarachnoid space are named ependymal or epithelial cysts. The estimated ratio of their incidence compared with arachnoid cysts is 1:10. Neurologic deficit can occur when the cyst exerts mass effect on its surroundings. We evaluated the success rate of endoscopic fenestration of intracranial ependymal cysts.**Methods**: Our prospectively maintained endoscopy database was screened for all cases of ependymal cysts. The charts were retrospectively reviewed for symptoms, surgery, postoperative course, and complications. Magnetic resonance imaging scans performed before and after surgery were analyzed.**Results:** We identified 6 patients harboring an intracranial ependymal cyst. The cyst location was frontoparietal, parietal, occipital, or mesencephalic. Patients presented with several symptoms according to the location of the cyst (i.e., epilepsy, hemiparesis, diplopia, hemianopsia). All patients were treated by navigation-guided endoscopic fenestration of the cyst to the ventricular system. Two complications occurred: a cerebrospinal fluid leak, which was managed surgically by wound revision without the need for cerebrospinal fluid shunting, and a chronic subdural hematoma, which occurred 6 weeks after surgery and required burr hole evacuation. Follow-up period ranged from 6 months to 9 years. Magnetic resonance imaging revealed that all cysts decreased in size. Symptoms improved in all patients.**Conclusions:** Endoscopic fenestration of ependymal cysts to an adjacent ventricular cavity is a treatment option with excellent long-term results and minimal morbidity. It should be considered as the therapy of choice to avoid craniotomy and shunt dependence.
Keywords: Cystoventriculostomy;Endoscopic Fenestration; Ependymal Cyst;Intraparenchymal Cyst.

211. Ruptured Massa Intermedia Secondary to Hydrocephalus

Ahmed El Damaty, Soenke Langner and Henry W.S. Schroeder

World Neurosurgery, : 10-10000 (2017) IF: 2.592

Background: We report a case of ruptured massa intermedia (MI) as a sequela of hydrocephalus.**Case Description :**A single case report is presented describing the sequelae of tumor bed hematoma after a posterior fossa hemangioblastoma resection in which the patient bled 3 days after surgery, resulting in secondary hydrocephalus and subsequently dilatation of the third ventricle, which resulted in rupture of the MI. The patient was managed on emergency basis with an external ventricular drain then endoscopically with a third ventriculostomy and clot extraction.**Conclusions:**Absent MI is not uncommon in hydrocephalic patients, and it is assumed to be the result of rupture from acute dilatation of the third ventricle. Our case report proves this assumption and documents the presence and absence of the MI before and after developing hydrocephalus.
Keywords: Endoscopic Third Ventriculostomy;Hemangioblastoma;Hydrocephalus And Massa Intermedia.

212. Odontoidectomy Through Posterior Midline Approach Followed by Same Sitting Occipitocervical Fixation: A Cadaveric Study

Ehab Mohamed Eissa and Mohamed Mohi Eldin

Journal Of Craniovertebral Junction And Spine, 8: 58-63 (2017)

Object: Atlantoaxial instability with irreducible odontoid process is one of the challenges in spine surgery. These lesions are commonly treated through anterior transoral approach which is followed by posterior atlantoaxial fusion. However, there are still many limitations, especially cerebrospinal fluid fistula with subsequent life‐threatening infection, difficulty in cases with limited opening of mouth due to temporomandibular arthritis or anomalies of naso‐oropharynx. Türe et al. used the extreme lateral transatlas approach for the removal of odontoid. In this study, we applied the transatlas approach but through posterior midline incision aiming to evaluate its safety and feasibility.**Methods:** In four silicon injected, formalin‐fixed cadaver heads, posterior removal of the odontoid was done through the familiar midline incision and subperiosteal muscle separation and elevation of muscles as on unit followed by microscopic exposure and mobilization of the vertebral artery after opening of the foramen transversarium of atlas followed by drilling of lateral mass and odontoidectomy. Occipitocervical stabilization was done between the occiput and C2, C3 (C1 lateral mass screw can be added in the contralateral side for better stabilization).**Results:** Unilateral excision of the lateral mass of atlas after mobilization of the vertebral artery provided safe and excellent exposure of the odontoid process in the four cadaver heads without injury to vertebral artery or retraction of the dura.**Conclusion:** Posterior removal of the odontoid can be done safely through wide and sterile operative field, and occipitocervical fixation performed at the same sitting without need for another operation and hence avoids the risk of cord injury from repositioning
Keywords: Craniocervical Junction;Extreme Lateral-Transatlas Approach;Removal of The Odontoid.

213. Ct Assessment of Accuracy of Lumbar Pedicle Screw Insertion (an Applied Comparative Evaluation of Conventional and Percutaneous Techniques)

Mohamed Mohi Eldin , Ahmed Salah Aldin Hassan , Ahmed Hegazy and Mohamed Adel Ghoneim

Journal Of Orthopaedics Trauma Surgery And Related Research, 12(2) 2017: 1-7 (2017)

Overview of literature: Potential complications of screw misplacement and pedicle wall violation have focusedattention on screw placement techniques. Moreover, evaluation of any new

postoperative pain or neurologicaldeficit should rule out the causal relation between the screws and neurological complication.Purpose: The aim of the study is to evaluate the incidence and accuracy of pedicle screw placement comparing theconventional and percutaneous techniques of screw insertion.Study design: the study was done on 103 patients of both sexes and different ages. Patients are evaluated bypostoperative C.T. scan with 2 mm axial slices with bone window performed.Methods: Data were collected from the Department of neurosurgery, Kasr Al-Ainy, Cairo University Hospital.The valid patient sample was collected (n0=103). In addition to the standard study protocol evaluation, patientswere evaluated for the presence or absence of pedicle breach generally comparing both techniques (hypothesis1), and comparing the degree of deviation between both techniques (hypothesis 2). Blinded several observers CTassessment was done.Results: Studying the presence of pedicle wall violation in general, there is no statistical difference betweenboth techniques. However, at the S1 level, there is a statistical difference in favor of the percutaneous technique.Regarding the side of violation, there is a lower incidence of pedicle breach on the left side in favor of thepercutaneous technique. Regarding the direction of pedicle breach, there is no statistically significant differencebetween both techniques.Studying the extent of pedicle breach in general, we found no effect of technique or level on the extent of pediclebreach. However, percutaneous technique had a lower amount of pedicle breach taking the side into consideration.The amount of medial deviation is smaller with the percutaneous technique.Conclusion: There is no statistical difference between open and percutaneous techniques, except at the S1 level,in favor of the percutaneous technique. Moreover, percutaneous technique had a lower amount of pedicle breachtaking the side into consideration. The amount of medial deviation is smaller with the percutaneous technique.

Keywords: Pedicle Screw; Pedicle Violation; Transpedicular Fixation; Percutaneous Fixation

Dept. of Obstetrics and Gynecology

214. Spontaneous Viral Load Decline and Subsequent Clearance of Chronic Hepatitis C Virus in Postpartum Women Correlates with Favorable Interleukin-28B Gene Allele

Mohamed Hashem, Ravi Jhaveri, Doa'a A Saleh, Sahar A Sharaf, Fatma El-Mougy, Lobna Abdelsalam, Michelle D Shardell, Hesham El-Ghazaly and Samer S El-Kamary

Clinical Infectious Disease, 65: 999-1005 (2017) IF: 8.126

Background Postpartum hepatitis C viral (HCV) load decline followed by spontaneous clearance has been previously described. Herein we identify predictors for viral decline in a cohort of HCV-infected postpartum women. **Methods** Pregnant women at Cairo University were screened for anti-HCV antibodies and HCV RNA, and viremic women were tested for quantitative HCV RNA at 3, 6, 9, and 12 months postpartum. Spontaneous clearance was defined as undetectable viremia twice at least 6-months apart. Associations between viral load and demographic, obstetrical, HCV risk factors, and interleukin-28B gene (IL28B) polymorphism (rs12979860) were assessed.ResultsOf 2514 women, 97 (3.9%) had anti-HCV antibodies, 54 (2.1%) were viremic and of those, 52 (2.1%) agreed to IL28B testing. From pregnancy until 12 months postpartum, IL28B-CC allele women had a significant viral decline (P = .009). After adjusting, the IL28B-CC allele had a near significant difference compared to the CT allele (odds ratio [OR], 0.75; 95% confidence interval [CI], 0.75,1.00; P = .05), but not the TT allele (OR, 0.91; 95% CI, 0.61,1.38; P = .64). All 14/52 (26.9%) women who subsequently cleared were among the 15 with undetectable viremia at 12 months, making that time point a strong predictor of subsequent clearance (sensitivity = 100%, specificity = 97.4%, positive predictive value = 93.3%, negative predictive value = 100%).**Conclusions**IL28B-CC genotype and 12-month postpartum undetectable viremia were the best predictors for viral decline and subsequent clearance. These 2 predictors should influence clinical decision making.

Keywords: Il28b;Hepatitis C Virus;Pregnancy;Spontaneous Clearance;Viral Clearance.

215. Revisiting the Management of Recurrent Implantation Failure Through Freeze-All Policy.

Yasmin Magdi, Ahmed El-Damen, Ahmed Mohamed Fathi, Ahmed Mostafa Abdelaziz, Mohamed Abd-Elfatah Youssef, Ahmed Abd-Elmaged Abd-Allah,Mona Ahmed Elawady, Mohamed Ahmed Ibrahim and Yehia Edris

Fertility and Sterility, 108: 72-77 (2017) IF: 4.447

Objective: To determine whether a freeze-all policy for in vitro human blastocysts improves the ongoing pregnancy rate in patientswith recurrent implantation failure (RIF).Design: Prospective cohort study.Setting: Single private center.Patient(s): A total of 171 women with RIF divided into two groups: freeze-all policy group (n ¼ 81) and fresh embryo transfer (ET)group (n ¼ 90).Intervention(s): Freeze-all policy.**Main Outcome Measure(s):** Ongoing pregnancy rate.**Result(s):** The clinical pregnancy rate (52% vs. 28%; odds ratio [OR] 1.86; 95% confidence interval [CI], 1.29–2.68) and ongoingpregnancy rate (44% vs. 20%; OR 2.2; 95% CI, 1.04–3.45) were statistically significantly higher in the freeze-all group than thefresh ET group, respectively. The implantation rate was also statistically significant (freeze-all group 44.2% vs. fresh ET group15.8%; OR 2.80; 95% CI, 2.00–3.92).**Conclusion(s):** The freeze-all policy statistically significantly improved the ongoing pregnancy and implantation rates. Thus, a freezeallpolicy is likely to be the new key to helping open the black box of RIF. These findings also are useful for further investigating theadverse effect of controlled ovarian

Keywords: Freeze All Policy;Recurrent Implantation Failure.

216. Impact of Uterine Scar on Pain Experienced During Outpatient Hysteroscopy: A Prospective Blinded Comparative Study

Amr H. Wahba, AbdelGany M. Hassan, Mohamed Kotb, Hossam ElShenoufy and Hisham M. Haggag.

Journal of Minimally Invasive Gynecology, 24 (4): 626-631 (2017) IF: 3.061

Study Objective: To study the impact of uterine scar on pain experienced during outpatient hysteroscopy.**Design:** A prospective blinded comparative study (Canadian Task Force classification II-1).**Setting:** Outpatient hysteroscopy clinic at a university hospital.Patients: We included 140 women in the

childbearing period attending an outpatient hysteroscopy clinic. Patients were divided into 2 groups. Group A included patients with previous uterine scar (n =70) and Group B included those with unscarred uterus (n = 70). None of the patients had a previous attempt of a vaginal delivery.**Intervention:** Diagnostic outpatient hysteroscopy without the use of anesthesia or analgesia. **Measurements:** We assessed pain experienced during and immediately after the procedure using a 100-mm visual analog scale. We also evaluated the successful completion of the procedure.**Results:** There were no statistically significant differences in the pain scores between patients with scarred uterus and those with unscarred uterus during or immediately after the procedure. The procedure was aborted in only 1 case in the scarred uterus group. This patient had a history of surgical site infection, which may denote a weak scar. There were no statistically significant differences in pain scores between patients with cesarean scar and those with myomectomy scar. No statistically significant differences in pain scores were found between patients with 1, 2, 3, or 4 cesarean deliveries. **Conclusion:** Uncomplicated uterine scars do not have an impact on pain experienced during or immediately after diagnostic outpatient hysteroscopy using a 3.8-mm hysteroscope.

Keywords: Pain; Outpatient Hysteroscopy; Analgesics; Previous Cesarean; Previous Myomectomy.

217. A Randomized Double-Blind Controlled Trial of Different Filling Pressures in Operative Outpatient Hysteroscopy

Hisham Haggag , AbdelGhany Hassan, Amr Wahba and Ralf Joukhadar

International Journal Of Gynecology And Obstetrics, 139: 55-60 (2017) IF: 2.174

ObjectiveTo identify the optimal filling pressure during operative outpatient hysteroscopy that allows completion of the procedure while minimizing pain.**Methods**A double-blind randomized controlled trial of women aged 20–60 years undergoing operative hysteroscopy (including biopsy sampling, polypectomy, septum excision, adhesiolysis, or intrauterine device removal) was undertaken at a university hospital in Egypt between May 2014 and July 2016. Using a computer-generated randomization sequence, patients were randomly assigned into three equal groups: filling pressures of 40 mm Hg (group 1), 60 mm Hg (group 2), and 80 mm Hg (group 3; control). The primary outcome was the proportion of successfully completed procedures. Analyses were by intention to treat.**Results**Each group contained 80 women. The procedure was completed for 63 (79%) women in group 1, 73 (91%) in group 2, and 76 (95%) in group 3 (P=0.004). The proportion of completed procedures in group 3 was significantly different from that in group 1 (P=0.002), but did not differ significantly from that in group 2 (P=0.349).**Conclusion**A uterine filling pressure of 60 mm Hg does not reduce the frequency of completion when compared with 80 mm Hg in operative outpatient hysteroscopy.ClinicalTrials.gov registrationNCT02142673.

Keywords: Operative Hysteroscopy; Pain; Filling Pressures.

218. Prospective Study of The Effect of Maternal Body Mass Index on Labor Progress in Nulliparous Women in Egypt

Maged AM, Belal DS, Marie HM, Rashwan H, Abdelaziz S, Gabr AA and Elzayat AR

International Journal of Gynecology And Obstetrics, 139: 329-335 (2017) IF: 2.174

Objective: To evaluate the impact of maternal body mass index (BMI, calculated as weight in kilograms divided by the square of height in meters) on labor progress in nulliparous women.**Methods:**The present prospective cohort study enrolled primigravidae admitted to Kasr Al Ainy hospital, Cairo University, Egypt, during active labor between February 1, 2016, and February 28, 2017. Patients were classified into three equal groups using their BMI at **admission:** underweight (<18.5), normal weight (18.5-29.9), and obese (≥30). The primary outcome was the rate of cervical dilatation; secondary outcomes included the duration of the second stage of labor, neonatal delivery weight, and the mode of delivery.**Results:**Among the 600 primigravidae enrolled (200 in each group), significant differences were recorded in the rates of cervical dilatation (P<0.001), and the duration of the active labor phase (P<0.001) and the whole of labor (P<0.001); in the obese group, the cervical dilatation rate was lowest and the durations of the active phase of labor and the whole of labor were longer. The incidence of intrapartum cesarean delivery (P<0.001) and neonatal delivery weight (P<0.001) also differed between the groups; both were highest in the obese group.**Conclusions:**Patterns in labor progress, including cervical dilatation rate and labor duration, differed among patients with different BMI

Keywords: Body Mass Index;Labor Progress;Prolonged Labor.

219. Association of Biochemical Markers with the Severity of Pre-Eclampsia

Maged AM, Aid G, Bassiouny N, Eldin DS, Dahab S and Ghamry NK

International Journal Of Gynecology And Obstetrics, 136: 138-144 (2017) IF: 2.174

Objective: To assess the association between pre-eclampsia severity and biochemical and ultrasonography markers. **Methods:** A retrospective study was undertaken of women with severe pre-eclampsia (group 1, n=90), mild pre-eclampsia (group 2, n=90), or a normal pregnancy (group 3, n=90) who attended a hospital in Egypt in October 2013-April 2015. Associations between pre-eclampsia and biochemical, cardiotocography, and ultrasonography markers were investigated. **Results:** There were significant differences between the groups in C-reactive protein (331.44±112.38, 251.43±59.05, and 23.81±16.19 nmol/L; P≤0.05 for all), platelet count (113.40±36.72, 172.93±57.60, and 212.68±70.00×109 /L; P≤0.05 for group 1 comparisons), alanine transaminase (52.24±14.83, 38.34±13.12, and 23.11±6.92 U/L; P≤0.05 for group 1 comparisons), and serum uric acid (600.80±117.19, 481.83±118.97, and 243.89±53.54 μmol/L; P=0.050 for group 3 comparisons). Cardiotocography score was worse among women with severe pre-eclampsia than among those in the other two groups (P=0.039 for both comparisons). Biophysical profile score and umbilical artery resistance index differed by group (P≤0.05 for all). Middle cerebral artery

resistance index was lower among women with severe pre-eclampsia (P≤0.05).**Conclusion:**The levels of C-reactive protein, blood urea nitrogen, serum uric acid, and alanine transaminase, and the platelet count were linked with the presence and severity of pre-eclampsia

Keywords: Biochemical Markers;C-Reactive Protein;Maternal Complications;Neonatal Complications;Severe Pre-Eclampsia.

220. The Role of Gene Polymorphisms and Amh Level in Prediction of Poor Ovarian Response in Egyptian Women Undergoing Ivf Procedure

Motawi TMK, Rizk SM, Maurice NW, Maged AM, Raslan AN and Sawaf AH

Journal of Assisted Reproduction And Genetics, 34: 1659-1666 (2017) IF: 2.163

Objective: The aim of this study is to assess the role of AMH in prediction of poor ovarian response as well as the relation between ESR 2 (+ 1730G>A) (rs4986938) and FSHR p.Thr307Ala (c.919A>G, rs6165) SNPs and the poor ovarian response in Egyptian women undergoing IVF procedure. Discovering the genetic variants associated with ovarian response is an important step towards individualized pharmacogenetic protocols of ovarian stimulation.METHODS:We performed a prospective study on 216 young women with unexplained infertility. Ovarian stimulation was performed according to the GnRH antagonist protocol with a fixed daily morning dose of human menopausal gonadotrophin (HMG). The estrogen receptor (ESR2) (+ 1730G>A) (rs4986938) and FSH receptor p.Thr307Ala (c.919A>G, rs6165) single nucleotide polymorphisms (SNPs) were detected by real-time polymerase chain reaction. Serum FSH, Estradiol (E2) and anti-Müllerian hormone (AMH) levels were measured by enzyme-linked immunosorbent assay (ELISA).**Results:**This study revealed that the low AMH level was highly significantly related to the poor ovarian response ($p < 0.001$). Furthermore, the frequency of the ESR2 (AA) genotype and the FSHR (Ala307Ala) genotypes were highly significantly associated with the poor ovarian response ($p < 0.001$).**Conclusion:**The AMH level in combination with the ESR2 and the FSHR gene polymorphisms predict the poor ovarian response to COH in Egyptian wome

Keywords: Anti-Müllerian Hormone;Assisted Reproductive Technology; Controlled Ovarian Hyperstimulation;Estrogen Receptors; Follicle-Stimulating Hormone Receptor;In-Vitro Fertilization; Infertility;Single Nucleotide Polymorphisms.

221. Maternal Serum Homocysteine and Uterine Artery Doppler as Predictors of Preeclampsia and Poor Placentation

Ahmed M. Maged,Hany Saad,Hadeer Meshaal,Emad Salah,Suzy Abdelaziz,Eman Omran,Wesam S. Deeb and Maha Katta

Archives Of Gynecology and Obstetrics, 296: 475-482 (2017) IF: 2.09

Purpose: The aim of this study was to evaluate the role of maternal serum total Homocysteine (tHcy) and uterine artery (Ut-A) Doppler as predictors of preeclampsia (PE), intrauterine growth restriction (IUGR), and other complications related to poor placentation.**Patients and Methods:**A prospective cohort study was conducted on 500 women with spontaneous pregnancies. tHcy was measured at 15-19 weeks, and then, Ut-A Doppler was performed at 18-22 weeks of pregnancy.**Results:**453 pregnant women completed the follow-up of the study. The tHcy and Ut-A resistance index were significantly higher in women who developed PE, IUGR, and other complications when compared to controls (tHcy: 7.033 ± 2.744, 6.321 ± 3.645, and 6.602 ± 2.469 vs 4.701 ± 2.082 μmol/L, respectively, p value <0.001 and Ut-A resistance index: 0.587 ± 0.072, 0.587 ± 0.053, and 0.597 ± 0.069 vs 0.524 ± 0.025, respectively, p value <0.001). The use of both tHcy assessment and Ut-A Doppler improved the sensitivity of prediction of PE relative to the use of each one alone (85.2 relative to 73.33 and 60%, respectively).**Conclusion:**The use of elevated homocysteine and uterine artery Doppler screening are valuable in prediction of preeclampsia, IUGR, and poor placentation disorders

Keywords: Homocysteine;Poor Placentation Disorders; Preeclampsia; Uterine Artery Doppler.

222. Carbetocin Versus Syntometrine for Prevention of Postpartum Hemorrhage After Cesarean Section.

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Journal Of Maternal-Fetal & Neonatal Medicine, 30: 962-966 (2017) IF: 1.826

Objective: To compare effectiveness and tolerability of carbetocin versus syntometrine in prevention of postpartum hemorrhage (PPH) after cesarean section (CS).METHODS:A double-blind randomized study conducted on 300 pregnant subjected randomly either to single 100 μg IV dose of carbetocin (150 women) or combination of 5 IU oxytocin and 0.2 mg ergometrine (150 women) after fetal extraction and before placental removal. Primary outcome parameter was the occurrence of PPH. Other parameters were hemoglobin and hematocrit changes, the need of additional oxytocic, hemodynamic changes and occurrence of side effects.**Results:**There was no significant difference between the two study groups regarding hemoglobin and hematocrit at start of CS and after 2 days of surgery and mean blood loss during the operation ($p > 0.05$). There was a highly significant difference between the two study groups regarding incidence of primary PPH (2.7% versus10%) and the need of additional oxytocic (3.3% versus17.3%). Women in oxytocin group showed a statistically significant lower systolic and diastolic blood pressure at 1, 5 and 30 min than women in carbetocin group. Women in carbetocin group experienced more metallic taste, flushing, headache, dizziness, dyspnea and itching, while women in oxytocin methergine group experienced more palpitations.**Conclusions:**Carbetocin is a reasonable effective alternative to syntometrine in prevention of PPH after cesarean delivery.

Keywords: Carbetocin;Cesarean Section;Postpartum Hemorrhage;Syntometrine.

223. Laparoscopic Transabdominal Cerclage: New Approach

Mohamed F. Shaltout, Ahmed M. Maged, Moutaz M. Elsherbini and Rasha O. Elkomy

Journal Of Maternal-Fetal & Neonatal Medicine, 30: 600-604 (2017) IF: 1.826

Objective: To evaluate efficiency and safety of the new approach of laparoscopic cerclage.**Studydesign:** Fifteen women were operated with our new technique. Their age ranged from 22years to 35 years. Inclusion criteria included those with history of two or more secondtrimesteric abortions or early preterm labor. These women had at least two previousunsuccessful vaginal cerclage or vaginal insertion of cerclage is not possible because ofcongenitally short cervix, cervical conization or excessive cervical scarring.**Results:** Twelve of the participants delivered vaginally with the removal of cerclage, two had CS due to breech presentation and the cerclage was left in place and the last one has surgicalevacuation. No intraoperative or postoperative complications were encountered namely; excessive bleeding, injury of uterine vessels or postoperative peritonitis. No technical difficulties upon doing the procedure or cerclage removal were met apart from one case where removal ofthe vaginal stitch was not possible [incision was done in the cervix over the tape and the Mersilene tape was cut followed by repair of the cervical tissue using (00) Vicryl stitches]. **Conclusion:** The new approach for laparoscopic cerclage is a safe, effective and reasonable treatment after failure of vaginal cerclage

Keywords: Incompetent Cervix;Laparoscopy;Transabdominal Cerclage.

224. Uroflowmetric Changes, Success Rate and Complications Following Tension-Free Vaginal Tape Obturator (Tvt-O) Operation in Obese Females

Reham Fouad, Yehia El-faissal, Ahmed T Hashem and Sherine H Gad Allah

European Journal Of Obstetrics, Gynecology, and Reproductive Biology, 214: 6-10 (2017) IF: 1.666

Objective: The goal of this study was to evaluate the outcome of Tension-free Vaginal Tape Obturator (TVT-O) operation in the treatment of urodynamic stress incontinence (USI) in obese females, with respect to uroflowmetric changes, success rate and postoperative complications.**Methods:**This prospective observational study included 26 patients with USI at the Obstetrics & Gynecology department-Cairo University hospital during the year 2015. The participants had body mass index (BMI)≥30. Patients underwent TVT-O operation. Follow up of the patients was performed by cough test and uroflowmetry after one week, one month, three months and six months. Postoperative complications such as groin pain, sense of incomplete emptying, need to strain to complete micturition and urinary tract infection were recorded. Comparisons between groups were done using Chi square, Phi-Cramer test for categorical variables.**Results:**The mean age for the subjects was 43.58±9.01years. The mean BMI was 33.4±2.1. The success rate of TVT-O operation was 21 out of 26 patients (≈81%). Normal maximum flow rate was in 88% of patients at week one and was normal in 100% of patients at months three and six (p=0.101 & 0.101). Postoperative groin pain was the main complaint during the first week after operation and decreased significantly from week one to the 1st month postoperative (84.62% & 65.38%, P=0.041).**Conclusion:**TVT-O operation showed a high success rate in treatment of USI in obese patients without affecting the voiding function of the bladder as proven by the uroflowmetry. The main postoperative complaint was the groin pain which significantly improved after one month.

Keywords: Obesity;Obturator (Tvt-O);Tension-Free Vaginal Tape;Urodynamic Stress Incontinence;Uroflowmetry.

225. Amino Acid Chelated Iron Versus an Iron Salt in The Treatment of Iron Deficiency Anemia with Pregnancy: A Randomized Controlled Study.

Ghada A Abdel Moety, Ahmed M Ali , Reham F, Wafaa Ramadan,Doaa S Belal and Hisham M Haggag

European Journal of Obstetrics and Gynecology and Reproductive Biology, 210: 242-246 (2017) IF: 1.666

Objective: The aim of this study was to compare the efficacy and tolerability of iron amino acid chelate (IAAC) and ferrous fumarate (FF) in treatment of iron deficiency anemia (IDA) with pregnancy.**Study Design:**A total of 150 pregnant women having iron deficiency anemia (IDA) were randomized to receive either IAAC or FF for 12 weeks. Hemoglobin, red cell indices, serum iron, and serum ferritin were measured at baseline and then 4, 8, and 12 weeks after treatment. Adverse effects were questioned in both groups.**Results**:The mean values of hemoglobin, red cell indices, serum iron, and serum ferritin were not significantly different between both groups after 12 weeks of treatment. However, the rise in hemoglobin level after 4, 8, and 12 weeks of treatment was significantly faster in the IAAC group (p=<0.001). Constipation and abdominal colicky pain were significantly more common in the FF group (p=0.022 and 0.031 respectively).**Conclusion:**IAAC and FF are comparable in curing IDA with pregnancy; however, IAAC has the advantage of providing a faster rate of improvement of hemoglobin level and is better tolerated by the patients.

Keywords: Ferrous Fumarate;Iron Amino Acid Chelate;Iron Deficiency Anemia With Pregnancy;Safety;Treatment.

226. Prevalence of Sexual Dysfunction in Infertile Versus Fertile Couples

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European Journal Of Obstetrics & Gynecology and Reproductive Biology, 217: 38-43 (2017) IF: 1.666

ObjectivesThe primary aim of this study was to test the hypothesis that sexual dysfunction is higher in infertile females in relation to normal healthy women through comparing total and sexual domains scores in both groups. The secondary objectives were: to determine factors affecting occurrence of female sexual dysfunction (FSD) in all sample and to determine factors affecting the different sexual domain scores within the infertile group.Study designThis cross sectional study was done at Cairo University Hospital. 200 infertile and 200 control females were evaluated using the Female Sexual Function Index (FSFI) questionnaire. Total score less than 26.55 signified sexual dysfunction. Husbands were evaluated by Sexual Health Inventory for Men (SHIM) questionnaire. A score less than 22

signified erectile dysfunction (ED).**Results**Proportion of females with sexual dysfunction was higher in the infertile versus control group (47% versus 30%, 95%CI for the difference: 8%, 26%, p-value: <0.001). Total, orgasm, satisfaction and pain scores were significantly lower in infertile versus control group (mean ± SD: 26.8 ± 3.8 versus 27.9 ± 3.5, p-value: 0.003; 4.2 ± 0.7 versus 4.6 ± 0.6, p-value: 0.01; 4.9 ± 0.5 versus 5.2 ± 0.5, p-value: 0.004 and 3.9 ± 0.9 versus 4.4 ± 0.7, p-value: <0.001 respectively). Husband SHIM erectile score was significantly lower in the infertile group (median score (range): 19 (5, 25) versus 22 (12, 25), p-value: 0.001). After adjustment for 15factors by logistic regression, the odds ratio of having FSD was 2.6 (95%CI: 1.5, 4.5, p-value: 0.001) in the infertile relative to control females. Secondary (versus primary) infertility was negatively correlated with arousal score (B (95%CI): −0.6 (−0.02, −1.2), p-value: 0.003) while duration of infertility was negatively correlated with arousal, satisfaction and pain domains scores (B (95%CI): −0.2 (−0.08, −0.32), p-value: 0.04; −0.2 (−0.1, −0.3), p-value: 0.005; −0.2 (−0.06, −0.34), p-value: 0.03 respectively).**Conclusion**sexual dysfunction is more prevalent in infertile versus control group. Infertility clinicians should be aware of this problem to assess and treat their patients to improve their quality of life.

Keywords: Infertility;Female Sexual Dysfunction;Fsfi Questionnaire.

227. 3D Ultrasound Assessment Of Endometrial Junctional Zone Anatomy As A Predictor Of The Outcome Of Icsi Cycles.

Maged AM, Ramzy AM, Ghar MA, El Shenoufy H, Gad Allah SH, Wahba AH and ElKateb AY Hwedi N

European Journal Of Obstetrics & Gynecology And Reproductive Biology, 212: 160-165 (2017) IF: 1.666

Objective: To study the relation between junctional zone thickness (JZ) and success of implantation in IVF/ICSI cycles.**Study Design:**A prospective study included 100 infertility patients undergoing ICSI. The long protocol was used in all patients. JZ was measured using 3D ultrasound, in the coronal section, at three places, on two occasions. First measurement was done before HMG was started (i.e. when down regulation was achieved). Second measurement was done on the day of ovum pick up (OPU). Follow up after treatment was done to determine the rate of implantation.**Results:**There was a highly significant difference between pregnant and non pregnant treated women regarding the measurement of JZ at the day of OPU at all sites named fundal (0.27±0.1 vs. 0.38±0.14), anterior (0.28±0.07 vs. 0.36±0.09), posterior (0.32±0.1 vs. 0.37±0.09) and average (0.29±0.08 vs. 0.37±0.09) respectively. The cut off value, sensitivity and specificity of measurement of JZ at fundus were (≤0.31,90% and 66.7%), at anterior wall were (≤0.35,90% and 60%), at posterior wall (≤0.25, 50% and 93.3%) and average were (≤0.32,70% and 70%) respectively.**Conclusion:**The thinner the junctional zone at day of OPU, the higher the implantation rate and the difference between JZ measured at the day of down regulation and the day of OPU is a predictor of the outcome of ICSI cycles.

Keywords: 3D Ultrasound;Icsi;Junctional Zone;Uterus.

228. Ultrasound-Guided Intrauterine Device Insertion: A Step Closer to Painless Insertion: A Randomized Control Trial.

Yasmin Ahmed Bassiouny

European Journal Of Contraception & Reproductive Health Care, 22: 349-353 (2017) IF: 1.627

Aim of study: To reduce the pain and duration of the intrauterine device (IUD) insertion procedure through minimizing instrumentation and using trans-abdominal sonography (TAS).**Methods:** This randomized control trial was conducted in a university hospital and included 102 eligible females, fulfilling the inclusion criteria. They were randomly assigned into two groups via 1:1 computer-based randomization program; the trans-abdominal guided IUD insertion group (n = 51), and the traditional IUD insertion group (n = 51). The main outcomes were the pain experienced during the procedure as scored by the visual analogue score and the duration of the procedure.Results: The trans-abdominal guided IUD insertion was found to be statistically superior to the traditional technique for IUD insertion regarding the pain scores (according to the Visual Analogue Scale, from 0 to 10) recorded by the candidates (2.4 ± 2.1 vs. 5.0 ± 1.7, $p < .001$) as well as the time (in seconds) taken for IUD insertion procedure (32.2 ± 14.8 vs. 77.7 ± 30.6, $p < .001$).**Conclusions:** Due to the decrease in pain and time taken for IUD insertion, the trans-abdominal guided technique can be used as a modified technique for IUD insertion.ClinicalTrials.gov Identifier: NCT02582268.

Keywords: Contraception;Intrauterine Device;Painless Insertion;Trans-Abdominal Ultrasound.

229. Uterovaginal Anastomosis for Cases of Cryptomenorrhea Due to Cervical Atresia with Vaginal Aplasia: Benefits and Risks

Mohamed Zayed, Reham Fouad, Khaled A Elsetohy, Ahmed T Hashem, Ahmed A abdallah and Abdallah I Fathi

Journal Of Pediatric and Adolescent Gynecology, 30: 641-645 (2017) IF: 1.576

Study Objective: The objective of this study was to assess short-term benefits and risks of utero-vaginal anastomosis done for cases of cryptomenorrhea due to cervical atresia with vaginal aplasia.DESIGN:Prospective study. **Setting:** Surgical procedures were done between December 2013 and September 2015 at the department of Obstetrics and Gynecology, Cairo University Hospital.**Participants:**Five patients who had cryptomenorrhea due to cervical atresia associated with vaginal aplasia were included.**Interventions:**Utero-vaginal anastomoses were performed in 2 stages; a stage of McIndoe vaginoplasty and a stage of excision of the atretic cervical tissue and anastomosing the uterus to the neovagina. Follow-up was done by gynecological and ultrasound examination in a duration ranged from 12 to 36 months.**Main Outcome Measures:** Occurrence of regular menstrual flow and relief of the severe cyclic pain. **Results:** All patients had relief of the severe cyclic pain. Four patients had regular menstrual flow. One patient developed occlusion of the track after 1 year and needed dilatation once. Three patients developed low vaginal stenosis without occlusion of the track. One patient had rectal injury repaired without causing postoperative morbidity. **Conclusion:** Uterovaginal anastomosis

is a promising conservative management option for cervical atresia with vaginal aplasia, which has benefits but is not free of risks. Long-term follow-up is still needed to judge its feasibility. We recommend performing McIndoe vaginoplasty as a starting stage before the anastomosis preferably in a separate setting.
Keywords: Cervical Atresia;Uterovaginal Anastomosis;Vaginal Aplasia.

230. Effect of Oral Contraceptives on Balance in Women: A Randomized Controlled Trial

Maged AM, Salah E, Kamel AM, Hussein AM, Saad H, Meshaal H and Kamal WM

Taiwanese Journal of Obstetrics and Gynecology, 56: 463-466 (2017) IF: 0.925

Objective: To detect the effect of combined oral contraceptive pills (COC) on dynamic postural balance in healthy middle aged women.**Materials and Methods:**A prospective randomized controlled study included 200 patients classified into two groups. Group I received COC containing 30 µg of EE and 3 mg of drospirenone for 12 consecutive cycles and Group II received no treatment. Overall, medio-lateral and antero-posterior stability were measured using Biodex system after 12 months.**Results:**There was a highly statistically significant difference between the 2 study groups regarding estradiol level (12.84 ± 1.96 vs. 38.86 ± 3.99, P value < 0.001) and progesterone level (0.52 ± 0.25 vs. 11.64 ± 4.53, P value < 0.001). There was a highly statistically significant difference between the 2 study groups regarding mediolateral stability (1.84 ± 0.23 vs. 2.40 ± 0.56, P value < 0.001), antereoposterior stability (1.91 ± 0.29 vs. 2.33 ± 0.61, P value < 0.001) or overall stability (2.42 ± 0.29 vs. 2.95 ± 0.53, P value < 0.001).**Conclusion:**COC are effective method of contraception to improve postural balance and decrease risk of injury in normal and athletic women
Keywords: Combined Oral Contraceptive Pills;Dynamic Postural Balance;Stability Index.

231. Estradiol and Luteinizing Hormone Concentrations in the Follicular Aspirate During Ovum Pickup as Predictors of in Vitro Fertilization (Ivf) Outcome

Diaa Sarhan, Akmal El Mazny, Tamer Taha, Amira Aziz, Osama Azmy, Dawood Fakhry and Haitham Torky

Middle East Fertility Society Journal, 22: 27-32 (2017)

Background: A relationship between 'oocyte quality' and follicular fluid hormones is expected, since its formation coincides with the 'oocyte maturation' phase. The aim of this study was to find a possible relation between oocyte quality with follicular luteinizing hormone (LH) and estradiol (E2) as hormonal parameters of oocyte quality during ovum pickup for intra-cytoplasmic sperm injection (ICSI). **Methods:** Concentrations of LH and E2 in individual follicular fluid samples obtained during assisted reproduction treatment were related to oocyte nuclear maturation, fertilization and embryo grading. E2 and LH differences between individual groups of oocytes and embryos were calculated using the paired Student's t test and ANOVA test. **Results:** Follicular E2 levels showed a significant positive correlation with oocyte nuclear maturation, fertilization and embryo grading being higher in follicles whose oocytes had matured nucleus (475 ± 142.9 ng/ml vs. 332 ± 76.4 ng/ml, P value <0.001), normally fertilized (502.5 ± 131.3 ng/ml vs. 339.8 ± 78.3 ng/ml, P value <0.001) and developed into good quality embryos (596.9 ± 72.4 ng/ml grade A vs. 511.7 ± 73 ng/ml grade B vs. 310.9 ± 57 ng/ml grade C, P value <0.001). However Follicular LH was only positively correlated with oocyte nuclear maturation. **Conclusions:** The local follicular environment may play a key role in the observed differences in oocyte quality. Our results suggest that the use follicular E2 may be of value in the assessment of oocyte quality. If there is a marker for oocyte quality, it would be possible to select oocytes rather than embryos, which may improve selection criteria of the best embryo to transfer, therefore increases success rate of ICSI.
Keywords: Hormones;Follicular Fluid;Oocyte Quality.

Dept. of Ophthalmology

232. Implantable Collamer Lens in the Management of Pseudophakic Ametropia

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Journal Of Refractive Surgery, 33: 532-537 (2017) IF: 3.709

Purpose: To assess Visian Implantable Collamer Lens (ICL) (STAAR Surgical, Monrovia, CA) implantation in the ciliary sulcus to correct pseudophakic ametropia in patients who are not candidates for a keratorefractive procedure.**Methods:**The authors performed a prospective non-comparative case series study of 18 patients (age: 48 to 61 years) with refractive surprise after phacoemulsification. Patients underwent implantation of a piggyback collagen copolymer lens: V4C design in 16 myopic eyes and V4B design in 2 hyperopic eyes. The position and vault of the ICLs were documented at all control visits clinically and with Pentacam (Oculus Optikgeräte, Wetzlar, Germany). Uncorrected distance visual acuity (UDVA), corrected distance visual acuity (CDVA), manifest refraction spherical equivalent (MRSE), intraocular pressure (IOP), and endothelial cell count were recorded at baseline and 1 week and 1, 6, 12, and 18 months postoperatively.**Results:**The MRSE improved from -3.08 ± 2.37 diopters (D) preoperatively to -0.44 ± -0.23 D postoperatively, corrected with a mean ICL power of -3.20 ± 2.90 D. The mean UDVA improved from 1.03 ± 0.12 logMAR preoperatively to 0.05 ± 0.06 logMAR postoperatively (P = .00), whereas CDVA improved from 0.47 ± 0.03 logMAR preoperatively to -0.006 ± 0.02 logMAR (P = .001) postoperatively. None of the cases developed interlenticular opacification throughout the 18-month follow-up. The mean ICL vault measured by Scheimpflug tomography was 451.27 ± 178.5 µm. Acute IOP elevation with anterior uveitis developed in 2 eyes and was controlled by topical steroids and a beta-blocker.**Conclusions:**Sulcus implantation of the secondary ICL to correct pseudophakic refractive error was safe, predictable, and well tolerated in all studied eyes
Keywords: Piggyback-Anisometropia

233. Different Surgical Modalities For Management of Persistent Glaucoma After Silicone Oil Removal in Vitrectomized Eyes: One Year Comparative Study.

Heba Magdy El-Saied and Mohamad Amr Salah Eddin Abdelhakim

Retina-The Journal Of Retinal And Vitreous Diseases, 37: 1535-1543 (2017) IF: 3.7

Purpose: Aim of this study was to compare outcome of four different surgical modalities for management of persistent glaucoma after silicone oil removal in vitrectomized eyes.**Methods:**This is a prospective comparative study, carried out on a cohort of 41 eyes (41 patients). Patients were randomly allocated to Group A (trabeculectomy), Group B (deep sclerectomy), Group C (Ahmed valve), or Group D (Ex-Press Minishunt). Postoperatively, all patients were followed regularly at 1 day, 1 week, 1, 3, and 6 months, and 1 year for intraocular pressure evaluation.**Results:** Postoperatively, there was significant drop in intraocular pressure in each group, and significant difference between the four groups regarding drop and percentage drop in intraocular pressure, with Group C showing the highest mean percentage drop in intraocular pressure, whereas Group B with the least. Success rate was 100% with Ex-Press minishunt, 80% with Ahmed valve, and 50% for each of trabeculectomy and deep sclerectomy. Hypotony occurred in 50% with Ahmed valve and 40% with trabeculectomy, whereas glaucoma occurred in 50% with deep sclerectomy and 30% with trabeculectomy.**Conclusion:** For controlling persistent glaucoma after silicone oil removal in our work, Ex-Press minishunt had the highest complete success rate with no postoperative complications.

Keywords: Ahmed Valve; Deep Sclerectomy; Ex-Press Minishunt; Persistent Glaucoma; Silicone Oil; Trabeculectomy.

234. Management of Pseudophakic Myopic Anisometropic Amblyopia with Piggyback Visian Implantable Collamer Lens

Sherif A. Eissa

Acta Ophthalmologica, 95: 188-193 (2017) IF: 3.157

Purpose: To assess the outcomes of sulcus implantation of the Visian implantable collamer lens (ICL) to correct pseudophakic myopic anisometropic amblyopia with myopic shift and/or primary refractive overcorrection.**Methods:**Prospective case series enrolled 14 pseudophakic eyes of 14 patients, 5-9 years old, with history of cataract surgery and primary in the bag-intraocular lenses (IOL) implantation, followed by myopic shift and/or refractive overcorrection and anisometropic amblyopia of variable degrees. All cases had implantation of a piggyback ICL/toric ICL, to correct the myopia/myopic astigmatism. Preoperatively, we evaluated the uncorrected distance visual acuity (UCVA), corrected distance visual acuity (CDVA), manifest refraction spherical equivalent (MRSE), intraocular pressure (IOP) and endothelial cell density (ECD). We assessed the position and vaulting of the ICLs on slit lamp examination and confirmed by Scheimpflug tomography. Postoperative follow-up was at 1st week and 1, 3, 6, 9, 12, 18 and 24 months.**Results:**Uncorrected distance visual acuity improved in all cases, and CDVA improved in 11 amblyopic eyes (2-4 lines). There was no evidence of interlenticular opacification (ILO) throughout the 2-year follow-up. Two cases were complicated with early postoperative acute elevation of IOP and were controlled with topical beta-blockers. Postoperative acute anterior uveitis occurred in six eyes and controlled by topical steroids. Implantable collamer lens (ICL) vault was measured using Pentacam, with mean value of 470 ± 238 μm.**Conclusion:**Sulcus implantation of the secondary piggyback ICL to correct unilateral pseudophakic myopic refractive error in children was safe, efficient, predictable and well tolerated in management of anisometropic amblyopia in all eyes.

Keywords: Keywords: Anisometropic Amblyopia;Implantable Collamer Lens;Piggyback.

235. Two-Year Results of Microcatheter-Assisted Trabeculotomy in Paediatric Glaucoma: A Randomized Controlled Study

Yasmine El Sayed and Ghada Gawdat

Acta Ophthalmologica, 95: 713-719 (2017) IF: 3.157

Purpose: To compare the outcomes of microcatheter-assisted circumferential trabeculotomy to standard rigid probe trabeculotomy in childhood glaucomas.METHODS:Eyes of children requiring trabeculotomy for primary congenital or secondary paediatric glaucoma were randomized to undergo either trabeculotomy using the Glaucolight illuminated microcatheter, or a rigid probe trabeculotomy. Complete success was defined as an intraocular pressure (IOP) of <18 mmHg without medications.**Results:**A total of 62 eyes of 62 patients were included. Of these 30 eyes of 30 patients aged 5.6 ± 4.8 months underwent microcatheter-assisted trabeculotomy, with 15 eyes (50%) having a complete 360° cut, while 15 eyes (50%) had an incomplete cut ranging from 250 to 350 degrees. The rigid probe trabeculotomy group included 32 eyes of 32 patients aged 4.4 ± 3.8 months. At the end of the 2-year follow-up period, the complete success and the failure rates were 67% and 15%, respectively, in the microcatheter-assisted group versus 47% and 50% in the rigid probe trabeculotomy group ($p = 0.006$). There was a tendency towards lower IOP in the microcatheter group at 1, 3, 6, 12 and 24 months postoperatively, with the difference in IOP reaching statistical significance at 6 months ($p = 0.004$). The mean survival time was significantly longer for the microcatheter group ($p = 0.01$).**Conclusion:**At 2 years postoperatively, microcatheter-assisted trabeculotomy still yielded superior results in terms of IOP control and success rates in children with primary congenital glaucoma. The need for reoperation for glaucoma was significantly lower in the microcatheter group.

Keywords: Congenital Glaucoma; Glaucolight; Microcatheter; Trabeculotomy

236. Fluorescein Angiographic Findings in Patients with Active Systemic Lupus Erythematosus

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Ocular Immunology And Inflammation, 26: 884-890 (2017) IF: 2.453

Purpose: To evaluate the retina of patients with active systemic lupus erythematosus (SLE) using fundusfluorescein angiography (FFA), irrespective of their visual acuity or fundus

examination.**Methods:** A descriptive study was performed on 30 patients with active SLE; disease activity was calculated usingThe Systemic Lupus Erythematosus Disease Activity Index (SLEDAI). Fundus examination and FFA angiographywere done to all patients.Results: A total of 60 eyes of 30 patients were included. Their mean age was 32.6 ± 1.17 years. All patients showeddisease activity at time of examination according to SLEDAI. Retinopathy was detected by FAF in 24 eyes (40%), 10eyes of which had normal fundus examination. SLEDAI was positively correlated to the presence of retinopathy.Conclusions: All patients with ocular lupus should be carefully evaluated for systemic involvement and, viceversa, all patients diagnosed with SLE should have a thorough ocular examination and FFA, even if they hadnormal fundus.
Keywords: Keywords: Fundus Fluorescein Angiography; Retinopathy;Systemic Lupus Erythematous.

237. Oct and Visual Field Changes as Useful Markers for Follow-Up of Axonal Loss in Multiple Sclerosis in Egyptian Patients

Dalia H. Khalil, Mohamed M. Said, Mohamad Amr Salah Eddin Abdelhakim and Dalia M. Labeeb

Ocular Immunology And Inflammation, 25: 315-322 (2017) IF: 2.453

Purpose: The aim of this work was to correlate optical coherence tomography (OCT) parameters, retinal sensitivity (perimetry) and best-corrected visual acuity (BCVA) with disease duration and neurologic functional disability in Egyptian patients with multiple sclerosis (MS). **Methods:** This is a cross-sectional observational cohort study in which 68 MS patients and 23 healthy controls had full neurologic examination, including expanded disability status scale (EDSS) and full ophthalmologic examination, including functional and structural assessments of the optic nerve through BCVA, visual field examination (SITA), and OCT (Optovue). **Results:** Retinal nerve fiber layer (RNFL) thickness was significantly decreased in MS eyes. MS eyes had significantly decreased GCC. RNFL thickness was significantly negatively correlated to EDSS and disease duration. GCC was significantly negatively correlated to disease duration. BCVA and retinal sensitivity (MD) were significantly correlated to the MS duration. **Conclusions:** OCT is a promising tool to detect subclinical changes in RNFL and GCC in Egyptian patients with MS.
Keywords: Expanded Disability Status Scale (Edss);Ganglion Cell Complex (Gcc);Multiple Sclerosis;Optical Coherence Tomography (Oct);Perimetry;Retinal Nerve fiber Layer (Rnfl).

238. Value of Intravitreal Gas Injection with Ahmed Valve Implantation in the Prevention of Suprachoroidal Hemorrhage in Aphakic, Aniridic, And Vitrectomized Glaucomatous Eyes: A Pilot Study.

Heba M.A. El-Saied and Abdussalam M. Adullatif

Journal Of Glaucoma, 26(6): 0-0 (2017) IF: 2.263

Purpose: The aim of this study was to assess the value of intravitreal injection of nonexpansile C3F8 12% in the prevention of suprachoroidal hemorrhage (SCH) after Ahmed valve implantation for the treatment of secondary glaucoma in vitrectomized, aphakic, and aniridic eyes following blunt trauma.**Patients and Methods:**This is a case series of 5 patients who presented with traumatic secondary glaucoma in vitrectomized, aphakic, and aniridic eyes. Vitrectomy was performed in all eyes after trauma for the treatment of the vitreous hemorrhage. Ahmed valve implantation with complete filling of the vitreous cavity with nonexpansile C3F8 was carried out 2±0.2 months after vitrectomy. The outcome measures were evaluating the value of intraoperative filling of the vitreous cavity with gas in preventing SCH after Ahmed valve implantation and the ability of Ahmed valve implantation to control the intraocular pressure (IOP) in vitrectomized, aphakic, and aniridic eyes. All patients were examined up to 6 months.RESULTS:Inspite of the multiple risk factors present in our patients in the form of aphakia, vitrectomized eyes, and aniridia, no patient developed postoperative hypotony or SCH during the postoperative period. The gas was absorbed over 2 months and the IOP was maintained during the early postoperative period. Mean postoperative IOP was 15.2±1.09, 12.2±1.09, 18.4±7.12, 15.2±2.28, and 14.8±1. 09 mm Hg at 1 day, 1 week, 1 month, 3 months, and 6 months, respectively. The final postoperative best-corrected visual acuity was 0.66±0.13.**Conclusions:**Complete filling of the vitreous cavity with nonexpansile gas can prevent postoperative SCH after Ahmed valve implantation in the treatment of secondary glaucoma in vitrectomized, aphakic, and aniridic eyes.
Keywords: Vitrectomized; Aphakia; Aniridia; Ahmed'S Valve; Suprachoroidal Haemrrhage.

239. Retrospective Cohort Study Shows that the Risks for Retinopathy of Prematurity Included Birth Age and Weight, Medical Conditions and Treatment.

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Acta Paediatrica, 106(12): 1919-1927 (2017) IF: 2.043

AIM: This study described the characteristics and risk factors of neonates who developed retinopathy of prematurity (ROP) and severe treatable ROP in two Egyptian neonatal intensive care units (NICUs).**Methods:** This retrospective cohort study comprised 108 preterm neonates who were screened for ROP after being admitted to the two NICUs run by Cairo University Hospital from June 2014 to May 2015. Patients were examined using digital fundus photography and indirect ophthalmoscopy was performed if ROP was detected.**Results:**Retinopathy of prematurity occurred in 75 patients. Late-onset sepsis, ventilation and hypercapnia were independently associated with ROP. Patients who developed severe treatable ROP had a younger gestational age (GA) than patients who did not develop ROP or developed mild or moderate ROP (29 weeks, range 27-33 weeks versus 32 weeks, range 28-36 weeks, p = 0.002) and a lower birthweight (1200 g, range 980-1590 g versus 1460 g, range 770-2475 g, p = 0.029). The risk factors associated with severe treatable ROP included the duration of admission, the duration of incubator oxygen, late-onset sepsis, intraventricular haemorrhage, total parenteral nutrition and the duration of caffeine citrate therapy.**Conclusion:** This study showed that the risks for ROP were wide-ranging and included GA and weight, medical conditions and treatment.
Keywords: Retinopathy Of Prematurity;Low Birth Weight.

240. Incidence of Posterior Vitreous Detachment After Femtosecond Lasik Compared with Microkeratome Lasik

Osman, Moataz Hamed Khalil Noha Mahmoud El-Agha and Mohamed-Sameh

Cornea, 36: 1036-1039 (2017) IF: 2.01

Purpose: To compare the incidence of posterior vitreous detachment (PVD) after femtosecond and microkeratome laser in situ keratomileusis (LASIK). SETTING: Rowad Correction Centre, Cairo, Egypt (a private center affiliated to Cairo University). DESIGN: Prospective, nonrandomized comparative unmasked study. **Methods:** The study was conducted at a single laser center. Eligible patients chose between femtosecond and microkeratome LASIK after appropriate counseling. B-scan ultrasonography was performed before surgery by a single operator. Patients with preexisting PVD (partial or complete) were excluded. The axial length was also recorded. All surgery was performed by a single surgeon. During surgery, the suction time was measured. Ultrasonography was repeated 1 month after surgery by the same operator to detect PVD. RESULTS: Ten patients (20 eyes, group M) underwent LASIK using the Moria M2 microkeratome, and 10 patients (20 eyes, group F) underwent femtosecond LASIK with the IntraLase FS-150. In groups M and F, respectively, the proportion of women was 80% and 70%, and the mean age was 24.7 ± 4 years and 25.7 ± 3.3 years, the mean axial length was 24.2 ± 1.2 and 23.8 ± 1.2 mm, and the mean suction time was 18 ± 2 seconds and 63 ± 4 seconds (P < 0.001). After surgery, PVD was detected in 4 eyes (20%) in group M and 17 eyes (85%) in group F (P = 0.000044). **Conclusions:** The incidence of PVD 1 month after femtosecond LASIK was higher than after microkeratome LASIK. This may be due to longer suction time during femtosecond LASIK despite lower suction pressure.

Keywords: Femtosecond-Assisted Lasik;Microkeratome-Assisted Lasik;Posterior Vitreous Detachment;B-Scan Ultrasonography; Suction Time;Suction Pressure.

241. El Efecto De La Panfotocoagulación Con Láser En Edema Macular Diabético Con El Fotocoagulador Pascal® Versus El Láser De Argón Convencional

Mohamed Moghazy Mahgoub and Tamer A Macky

Ophthalmologica, 238 suppl. 1: 16-20 (2017) IF: 1.742

Objetivo: El objetivo de este estudio fue comparar el efecto de la panfotocoagulación (PFC) en el edema macular diabético (EMD) en pacientes con retinopatía diabética proliferativa (RDP) con el fotocoagulador Pascal® (FP) vs. un fotocoagulador con láser de argón convencional (FLAC). **Métodos:** Se aleatorizó el uso de FP o FLAC en ochenta ojos con RDP y EMD con afectación central de la mácula. Ambos grupos tuvieron una evaluación de base de mejor agudeza visual corregida y fueron examinados con tomografía de coherencia óptica y angiografía con fluoresceína. **Resultados:** El número medio de disparos de láser en los grupos de FP y FLAC fue 1.726,10 y 752,00 en la sesión 1 y 1.589,00 y 830,00 (p < 0,001) en la sesión 2, respectivamente. El grosor foveal central (GFC) medio antes de comenzar el estudio fue 306 ± 100 y 314 ± 98 en los grupos de FP y FLAC, respectivamente. A las 8 semanas, el GFC medio fue 332 ± 116 y 347 ± 111 en los grupos de FP y FLAC, respectivamente (p > 0,05). La MAVC media fue similar durante el periodo de estudio y no hubo ninguna diferencia significativa entre los grupos (p > 0,05). **Conclusiones:** El FP y el FLAC mostraron efectos similares en el EMD en ojos con RDP y fueron igualmente seguros sin un aumento significativo del GFC.

Keywords: Pascal; Fotocoaguladorláser De Argón Convencionalretinopatía Diabética Proliferativamaculopatía Diabéticapanfotocoagulación

242.Value of Microperimetry in Detecting Early Retinal Toxicity of Hydroxychloroquine in Children with Juvenile Systemic Lupus Erythematosus

Maha M. Youssef, Dina El-Fayoumi; Mohamed Karim Sidky, Ahmed I. Hegazy , Huda Marzouk and Rasha M. Eltanamly

Ophthalmologica, 237: 180-184 (2017) IF: 1.742

Purpose: To evaluate retinal sensitivity in children who areon hydroxychloroquine (HCQ) for systemic lupus erythematosususing microperimetry and compare the results withthose of the Humphrey visual field (HVF) 10-2 and spectraldomainoptical coherence tomography (SD-OCT). **Procedure:**A case-control cross-sectional study including 19 patients(less than 18 years old) on HCQ for at least 5 years.Controls were 21 normal children. Participants underwent acomplete ophthalmic examination, then were investigatedusing HVF 10-2, SD-OCT, and microperimetry. **Results:** Ocularexamination revealed no abnormalities. The overall meanmicroperimetry sensitivity of the patients (15.75 dB) was notsignificantly different from that of the controls (16.35 dB).The HVF 10-2 showed a significant difference in the meandeviation of the patients**. Conclusions and Message:** Microperimetrywas not more revealing than HVF 10-2 and SDOCT.Larger studies are required to compare the diagnosticaccuracy of screening modalities of retinal toxicity in childrenon HCQ.

Keywords: Children; Retinal Toxicity ; Microperimetry; Optical Coherence Tomography; Scanning Laser Ophthalmoscope.

243. Trabeculectomy with Ologen Versus Mitomycin C in Juvenile Open-Angle Glaucoma: A 1-Year Study

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Ophthalmic Research, 57: 230-238 (2017) IF: 1.729

Background: We assessed bleb morphology and the intraocular pressure (IOP)-lowering effect of trabeculectomy with ologen compared to mitomycin C (MMC) in juvenile open-angle glaucoma (JOAG). **Methods:** This is a prospective interventional comparative study conducted on 40 eyes (20 patients) with medically uncontrolled JOAG, randomly operating one eye for trabeculectomy with ologen (group A: 20 eyes) and the other with MMC (group B: 20 eyes). IOP measurement, SITA standard perimetry, and spectral domain optical coherence tomography (OCT) for retinal nerve fiber layer (RNFL) thickness were all done pre- and postoperatively. Postoperative blebs were assessed clinically using the Moorfields bleb grading system (MBGS) and anterior segment OCT (AS-OCT). All patients were examined for up to 1 year postoperatively. **Results:** The mean postoperative

IOP was statistically significantly lower than the mean preoperative IOP at each follow-up in each group. At 1 year, the mean postoperative IOP was significantly lower in group A. According to the MBGS, blebs with an ologen implant showed significantly better scoring than those with MMC. AS-OCT showed that ologen-induced blebs had significantly more fluid-filled spaces, cleavage planes, and less fibrosis. **Conclusion:** Ologen resulted in a lower long-term postoperative IOP, a better bleb morphology, and fewer complications. Our results suggest that ologen may be a useful alternative to MMC in JOAG.
Keywords: Trabeculectomy; Juvenile Glaucoma; Ologen; Mitomycin C; Moorfields Bleb Grading System; Optical Coherence Tomography.

244. Results of Femtosecond Laser-Assisted Descemet Stripping Automated Endothelial Keratoplasty

Mohamed H. Hosny, Ayah Marrie, M. Karim Sidky, Sherif GamalEldin and Mohsen Salem

Journal Of Ophthalmology, 2017: 1-11 (2017) IF: 1.712

Purpose. To evaluate femtosecond laser in DSAEK surgery as an improvement to manual DSAEK. Settings. Department of Ophthalmology, Cairo University. **Design.** A retrospective observational clinical study. Methods. 20 eyes with SBK and Fuchs' dystrophy underwent a Femto-assisted DSAEK by laser cutting of two matching posterior stromal discs in the recipient and donor corneas and then fitting the donor disc in the posterior corneal defect of the recipient using Busin's glide or Terry forceps. **Results.** Corneal thickness decreased significantly from a mean of 900-micron preoperative values (900.7 m) to 562 m postoperatively. Evidence of side healing was documented by OCT. One patient had a double AC, one patient had an air interface entrapment "Double Bubble," one patient had a fungal infection and was treated by a therapeutic penetrating keratoplasty, and one patient had a CMO. **Conclusion.** Femtolaser-assisted DSAEK may be superior to manual techniques as it offers better centration, thinner graft/host complex, earlier corneal detergecense, and stronger healing. This study was registered at Researchregistry.com with a UID: researchregistry2274.
Keywords: Dsaek;Keratoplasty;Femto-Laser.

245. Primary Outcomes of Accelerated Epithelium-Off Corneal Cross-Linking in Progressive Keratoconus in Children: A 1-Year Prospective Study

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Journal Of Ophthalmology, 2017: 1-9 (2017) IF: 1.712

Purpose. To evaluate corneal transparency following accelerated collagen cross-linking (ACXL) in pediatric keratoconus. Design. A prospective interventional case series. **Methods.** This study included 47 eyes (25 patients), aged 9–14 years, with documented progressive keratoconus. After applying 0.1% riboflavin drops, ACXL was performed. Assessment included corrected distance visual acuity (CDVA), uncorrected visual acuity (UCVA), corneal haze, and corneal densitometry in grayscale units (GSU). **Result.** The mean baseline and corneal densitometry peaked at 3 months post-ACXL while central and posterior densitometry showed a statistically significant increase () and peaked at 8 months postoperatively. By 12 months, densitometry in all corneal layers () and concentric zones . reached near baseline values. Slit-lamp graded haze peaked at 1 month to 1.82 ± 0.65 and declined to near baseline at 12 months (0.39 ± 0.58). There was a statistically significant increase in the mean UCVA and CDVA at 12 months. **Conclusion.** Total and anterior corneal densitometry peaked after 3 months, while central and posterior densitometry peaked after 8 months. Maximum haze was at 1 month post-ACXL. All corneal layers, concentric zone densitometry and haze reached near baseline values after 1 year. Scheimpflug densitometry showed weak correlation with CDVA over the 12-month follow-up period.
Keywords: Crosslinking;Progressive;Accelerated.

246. Xen Glaucoma Implant with Mitomycin C 1-Year Follow-Up: Result and Complications

Ahmed Galal, Alper Bilgic, Rasha Eltanamly and Amr Osman

Journal Of Ophthalmology, 2017: 1-5 (2017) IF: 1.712

Purpose. To evaluate gel microstent (XEN, Aquesys, Inc) for treatment of primary open angle glaucoma (POAG). **Methods.** In thisprospective interventional study, 13 eyes with POAG underwent XEN implantation with subconjunctival mitomycin-C. Of thoseeyes, 3 were pseudophakic and 10 underwent simultaneous phacoemulsification and XEN. Patients had uncontrolled IOP, hadintolerance to therapy, or had maximal therapy but undergoing cataract extraction. Follow-up visits included IOP, number ofmedications, vision, and complications and lasted for 1 year. Complete success was defined as IOP reduction ≥20% frompreoperative baseline at 1 year without any glaucoma medications while partial success as IOP reduction of ≥20% at 1 year withmedications. **Results.** IOP dropped from 16 ± 4mmHg pre-op to 9 ± 5, 11 ± 6, 12 ± 5, 12 ± 4, and 12 ± 3mmHg at 1 week, 1, 3, 6,and 12 months (p = 0 004, 0.026, 0.034, 0.01, and 0.01, Wilcoxon Signed Ranks) consecutively. BCVA (LogMAR) was 0.33 ± 0.34and improved to 0.13 ± 0.11 at 1 year. Mean number of medications dropped from 1.9 ± 1 preoperatively to 0.3 ± 0.49 (p = 0 003)at 1 year. 42% of eyes achieved complete success and 66% qualified success. Complications included choroidal detachmentin 2 eyes, and implant extrusion in 1 eye, and 2 eyes underwent trabeculectomy. **Conclusion.** XEN implant is an effective surgicaltreatment for POAG, with significant reduction in IOP and glaucoma medications at 1 year follow-up.
Keywords: Xen;Glaucoma;Intraocular Pressure;Mmc.

247. The Effectiveness of Pre- And Postoperative Infliximab in Controlling Behçet'S Disease Posterior Uveitis in Patients Undergoing Vitrectomy: A Preliminary Study

Hossam El Din Mohamed Khalil, Heba A. El Gendy,Hala Ahmed Raafat, Hazem Effat Haroun, Tamer Atef Gheita and Hossam Mahmoud Bakir

Journal Of Ophthalmology, 2017(2017): 1-5 (2017) IF: 1.712

Purpose. To evaluate the short-term effectiveness of infliximab in controlling ocular manifestations in Behçet's Disease(BD)

patients candidate for pars plana vitrectomy, if given in a regimen before and after the planned procedure.**Patients and Methods.** 30 eyes of 27 adult male BD patients with a mean age of 35.56 yrs presented with refractoryposterior uveitis not responding to immunosuppressive drugs and candidate for vitrectomy were included. Infliximabwas given in a dose of 5 mg/kg intravenous infusion once every two weeks for 3 treatment sessions before theintended vitrectomy followed by 3 treatment sessions at two-week intervals, after vitrectomy. **Results.** Improvement ofocular manifestations was noted in all eyes, with complete resolution in 26 eyes (87%). Visual acuity improved from0.23 ± 0.11 to 0.38 ± 0.17 ($p \leq 0$ 2), ESR decreased from 65.92 mm/hr ± 17.32 SD to 24.93 mm/hr ± 5.28 SD at the lasttreatment cycle ($p \leq 0$ 1). The mean daily dose of systemic corticosteroids was tapered from 44.54 mg/d ± 2.89 to8.48 mg/d ± 6.38 ($p \leq 0$ 2), and no relapses were noted during the follow-up period. **Conclusion.** Infliximab may be safeand effective in controlling posterior uveitis and inducing remissions if given in a regimen before and after vitrecomyin BD patients.

Keywords: Bechet's Disaese;Infliximab;Posterior Uveitis;Parsplana Vitrectomy.

248. V4b Implantable Collamer Lens Versus Intacs Corneal Rings to Manage Anisometropic Myopic Amblyopia in Children

Sherif Ahmed Eissa,Mohamed Wagih El-Deeb and Mahmoud Salah Hendawi

Canadian Journal Of Ophthalmology, 52: 409-415 (2017) IF: 1.543

Objective: To compare the safety and efficacy of phakic intraocular lens (PIOL) versus intrastromal corneal ring segments (Intacs), for correcting high myopic anisometropia in amblyopic children.DESIGN:Nonrandomized prospective multi-center study.**Participants:**Thirty children, aged between 4 and 12 years, with unilateral high myopic anisometropic amblyopia were included in this study.**Methods:**Patients who were prospectively subdivided into group A, with mean preoperative manifest refraction spherical equivalent (MRSE) of -12.96 ± 4.17 D, underwent unilateral phakic posterior chamber intraocular lens implantation. Patients with mean preoperative MRSE of -8.60 ± 1.16 D in group B were treated by Intacs corneal rings. Pre- and postoperative visual acuity, ocular examination, stereoacuity, axial biometry measurements, cycloplegic refraction, and endothelial cell counts were performed in all patients.**Results:**Group A revealed prevention of amblyopia with improvement in spectacle-corrected distance visual acuity, where 4-6 lines were achieved in 77% of children, 2-3 lines in 4%, and just 0-1 lines restricted to 19% of children. Improvement in stereoacuity was noted in 93.33% of group A cases, whereas group B showed fewer cases of successfully improved vision, with 4-6 lines in 70% of children, 2-3 lines in 3%, and just 0-1 lines restricted to 27% of children. Improvement in stereoacuity was noted in 86.66% of cases. Two cases of cataract and 1 case of glaucoma with 1 case of uveitis were noted in the implantable contact lens (ICL) group.**Conclusions:**Posterior chamber PIOLs or Intacs may provide a safe alternative in treating anisometropic myopic patients. Intacs implantation is safer with fewer complications than ICL. However, ICL implantation is advantageous over the corneal ring segment procedure owing to the wide range of errors to correct.

Keywords: Icl-Intacs-Anisometropia

249. Causes of Suboptimal Corrected Visual Acuity Following Phacoemulsification in A Teaching University Hospital

Mohammed Fathallah, Rasha M. Eltanamly, Hala Saadeldin and Gehad H. Elnahry

European Journal of Ophthalmology, 27 (2): 169-173 (2017) IF: 1.381

Purpose: Cataract is the leading cause of reversible blindness in developing countries, with variable visual outcomefollowing surgery. This work aims at assessing the outcomes of cataract surgery at Kasr Al Ainy Hospital andidentifying the reasons for borderline and poor outcome in the studied group.**Methods:** A total of 150 eyes of patients with cataract and no other ocular pathology were included in thisstudy. Uncorrected visual acuity (UCVA) and corrected visual acuity (CVA), complete ocular examination usingslit-lamp, applanation tonometry, and ophthalmoscopy were performed for all patients. Biometry for intraocularlens power calculation and operative data were recorded. Patients were followed for 6 weeks; UCVA, CVA, andany complications were noted.**Results:** Mean preoperative CVA was 0.16 ± 0.16 (SD) and mean postoperative CVA was 0.66 ± 0.33 ($p<0.001$).Forty-two percent of surgeries were performed by junior staff under training. Thirty-five surgeries were complicatedby posterior capsular rupture. Mean CVA at 6 weeks in the uncomplicated group was 0.77 ± 0.22; in thecomplicated group, 0.28 ± 0.34 ($p<0.001$). Biometry was accurate in 51.6% of cases. Most important causes forsuboptimal outcome were aphakia, astigmatism, posterior capsular opacification, and corneal edema.**Conclusions:** Kasr Al Ainy Hospital achieved CVA 6/9 or more in 69.3% and CVA 6/18 or more in 81.3% of patients.The capsular complication rate was high at 23.3%. The high complication rate is attributed to the nature of theteaching hospital where most surgeons were in their learning period

Keywords: Cataract; Complications; Phacoemulsification; Surgery;Visual Outcome.

250. Anterior Lamellar Recession for Management of Upper Eyelid Cicatricial Entropion and Associated Eyelid Abnormalities

Tamer I.Gawdat , Mahmoud A. Kamal , Ahmed S.Saif and Mostafa M. Diab

International Journal Of Ophthalmology, 10: 1830-1834 (2017) IF: 1.177

AIM: To evaluate the functional and aesthetic outcomesof upper eyelid cicatricial entropion (UCE) correction usinganterior lamellar recession (ALR) with addressing theassociated conditions including dermatochalasis, browptosis, blepharoptosis, and lid retraction.**Methods:**Chart review of patients with upper lidcicatricial entropion who had undergone ALR from 2013to 2016 was reviewed. Success was defined as the lack ofany lash in contact with the globe, no need for a secondprocedure, and acceptable cosmesis at the final follow up**. Results:**Sixty eight patients (97 eyelids) were operatedby ALR with simultaneous correction of associated lidproblems in each case when necessary.

The mean followuptime was 17.8mo (range, 6.0-24.0mo). Concomitantly,levator tucking was performed in 19 eyelids (19.6%), upperlid retractor recession in 18 eyelids (18.6%), and internalbrowpexy in 31 eyelids (32.0%). In 95.8% of patients (95%CI:0.85-0.96), satisfactory functional and cosmetic outcomewas achieved with a single surgical procedure.**Conclusion:** Based on the principles of lamellarrecession and concurrently addressing the associated lidproblems, this approach is an effective and safe treatmentof UCE.

Keywords: Anterior Lamellar Recession;Upper Eyelid Entropion;Concurrent Eyelid Malpositions;Complete Lid Split; Combined Eyelid Procedure.

251. Retinal Ganglion Cell Complex Changes Using Spectral Domain Optical Coherence Tomography in Diabetic Patients Without Retinopathy

Ahmed I. Hegazy, Rasha H. Zedan, Tamer A. Macky and Soheir M. Esmat

International Journal Of Ophthalmology, 10: 427-433 (2017) IF: 1.177

AIM: To assess the ganglion cell complex (GCC) thickness in diabetic eyes without retinopathy. METHODS: Two groups included 45 diabetic eyes without retinopathy and 21 non diabetic eyes. All subjects underwent full medical and ophthalmological history, full ophthalmological examination, measuring GCC thickness and central foveal thickness (CFT) using the RTVue® spectral domain-optical coherence tomography (SD-OCT), and HbA1C level. RESULTS: GCC focal loss volume (FLV%) was significantly more in diabetic eyes (22.2% below normal) than normal eyes (P=0.024). No statistically significant difference was found between the diabetic group and the control group regarding GCC global loss volume (GLV%) (P=0.160). CFT was positively correlated to the average, superior and inferior GCC (P=0.001, 0.000 and 0.001 respectively) and negatively correlated to GLV% and FLV% (P=0.002 and 0.031 respectively) in diabetic eyes. C/D ratio in diabetic eyes was negatively correlated to average, superior and inferior GCC (P=0.015, 0.007 and 0.017 respectively). The FLV% was negatively correlated to the refraction and level of HbA1c (P=0.019 and 0.013 respectively) and positively correlated to the best corrected visual acuity (BCVA) in logMAR in diabetic group (P=0.004). **Conclusion:** Significant GCC thinning in diabetes predates retinal vasculopathy, which is mainly focal rather than diffuse. It has no preference to either the superior or inferior halves of the macula. Increase of myopic error is significantly accompanied with increased focal GCC loss. GCC loss is accompanied with increased C/D ratio in diabetic eyes.

Keywords: Diabetes;Ganglion Cell Complex;Optical Coherence Tomography;Retina.

252. A Controlled Study of the Role of Cryopreserved Amniotic Membrane Transplant During Strabismus Reoperations

Rehab Rashad Kassem, FRCS(Glasg), Ahmed Mostafa Kamal, Randa Mohamed Abdel-Moneim El-Mofty and Hala Mostafa Elhilali

Journal of Aapos, 21: 97-102 (2017) IF: 0.997

Purpose To evaluate the effects of using cryopreserved human amniotic membrane (AM) transplant during strabismus reoperations. **Methods** A total of 30 patients with persistent strabismus were included in this prospective study. Patients were divided into two groups of 15 patients each. The AM group underwent strabismus reoperation with wrapping of the muscles with cryopreserved amniotic mem- brane. Controls underwent strabismus reoperation without an AM wrap. Final follow-up visit was scheduled between 3 and 12 months postoperatively. Surgical success was defined as 0D-10D of horizontal tropia and 0D-4D of vertical tropia, with no limitation of ductions exceeding 1. A cosmetically acceptable outcome was defined as a tropia of 0D-15D. **Results** Three patients were excluded in the AM group due to incomplete follow-up. A successful outcome was achieved in 7 patients in each group (58% and 47% in groups AM and C, resp.; P 5 0.63). A cosmetically acceptable outcome was achieved in 10 patients in the AM group (83.3%) and 12 (80%) in the control group (P 5 0.48). The mean ocular devi- ation angles improved to 8.7D ` 12D in the AM group and 12.3D ` 17.4D in the control group (P 5 0.63). Ductions improved in 66.7% and 36.4% of the muscles with limited motility in groups AM and C, respectively (P 5 0.019). **Conclusions** Wrapping the extraocular muscles with cryopreserved AM during strabismus reoperations was of limited clinical benefit. We attributed this to the small segment of AM used and to the presence of other causes of failure rather than adhesions.

Keywords: Amniotic Membrane; Strabismus Reoperations; Auctions; Adhesions

253. Anteriorization of the Normally Acting Inferior Oblique Muscles to Treat Dissociated Vertical Deviation Associated with Juvenile Glaucoma

Rehab Rashad Kassem

Journal of Pediatric Ophthalmology And Strabismus, 54 (2017) IF: 0.902

A case of dissociated vertical deviation, ptosis, and juvenile glaucoma is described. J deformity anteriorization of the normally acting inferior oblique muscles was chosen to preserve the superior fornix for glaucoma surgeries by avoiding superior rectus recession and to prevent narrowing of the palpebral fissure by avoiding an inferior rectus tuck.

Keywords: Dissociated Vertical Deviation;Juvenile Glaucoma;Inferior Oblique;Inferior Oblique Anteriorization.

254. Progression of High Anisometropia in Children

Rasha H. Zedan, Dina El-Fayoumi and Ahmed Awadein

Journal Of Pediatric Ophthalmology & Strabismus, 54(5): 282-286 (2017) IF: 0.902

Purpose: To investigate the onset and rate of progression of high anisometropia in myopic children younger than 13 years.**Methods:** A retrospective study was performed on children with anisometropia younger than 13 years with myopia of more than 4.00 diopters (D) in the more ametropic eye and a difference in spherical equivalent refraction of 4.00 D between both eyes. All children had a complete ophthalmologic examination, including measurement of visual acuity and cycloplegic refraction every 3 to 6 months for at least 5 years. Change in the spherical equivalent and the cylindrical error for both eyes and changes in

the difference in spherical equivalent refraction between both eyes were calculated for each patient at each visit. Linear, polynomial, logarithmic, and exponential fitting models were tested for both eyes and for the anisometropic difference between both eyes. The regression line with the greatest R2 value was considered best fit.**Results:** Sixty-three patients fulfilled the inclusion criteria. The more ametropic eye grew in a regular fashion during the first 2 years of life, followed by a rapid decrease in the rate of growth to become almost stable after 4 years of age. The increase in myopia best fit a third-degree polynomial (cubic) model (R2 = 0.98). The less ametropic eye showed only a small increase in myopia during the follow-up period. The anisometropic difference between both eyes increased gradually during the first 2 years, then remained stable.**Conclusions:** High anisometropic myopia progresses rapidly in the first few years of life before becoming stable
Keywords: Anisometropia; High Myopia; Progression

255. Correlation Between the Graft–Host Junction of Penetrating Keratoplasty by Anterior Segment-Optical Coherence Tomography and the Magnitude of Postoperative Astigmatism

Ghada Azab Nassar and Shaimaa Abd El salam Arfeen.

Indian Journal Of Ophthalmology, 65: 574-578 (2017) IF: 0.835

Purpose: This study aimed to evaluate the alignment pattern of the graft-host junction after penetrating keratoplasty (PK) by anterior segment-optical coherence tomography (AS-OCT) and to correlate this pattern with the magnitude of postoperative astigmatism.**Methods:**This retrospective observational study was carried out on forty patients who underwent PK from February 2013 to August 2014. AS-OCT was performed, and the graft-host junctions were classified into well-apposed junction, malapposed junction, and equally apposed junction. Mal-apposition is subdivided into gap and protrusion. The correlations between clinical characteristics, wound profiles from the AS-OCT, and the magnitude of postoperative astigmatism by Sirius camera (Costruzione Strumenti Oftalmici [CSO], Florence, Italy (CSO, Sirius), were analyzed.**Results:**Graft-host junctions from forty patients were analyzed; 18 eyes had well-apposed junctions, ten eyes had malapposed junctions, and 12 had equally apposed junctions. The mean cylinder was -9.44 ± -4.00D in well-apposed group, -13.40 ± -5.01D in malapposed group, and -4.67 ± -0.94D in equally apposed group. Alignment pattern of the graft-host junction correlated significantly with the magnitude of astigmatism (P = 0.034). Preoperative corneal diseases did not have an effect on the magnitude of astigmatism (P = 0.123).**Conclusion:**The alignment pattern of the graft-host junction by AS-OCT can explain the postoperative astigmatism after PK where it correlates significantly with the magnitude of astigmatism.
Keywords: Anterior Segment-Optical Coherence Tomography; Corneal Topography; Graft–Host Junction; Penetrating Keratoplasty; Postoperative Astigmatism

256. The Effect of Flap Thickness on Corneal Biomechanics After Myopic Laser in Situ Keratomileusis Using the M-2 Microkeratome

iyad A goussous, Mohamed-Sameh El-Agha, Ahmed Awadein, Mohamed H Hosny, Alaa A Ghaith and Ahmed l Khattab

Clinical Ophthalmology, 11: 2065-2071 (2017)

Purpose: The purpose of this study was to determine the effect of flap thickness on corneal biomechanics after myopic laser in situ keratomileusis (LASIK).**Methods:** This is a prospective controlled non-randomized, institutional study. Patients underwent either epi-LASIK with mitomycin (advanced surface ablation [ASA]), thin-flap LASIK (90 µm head), or thick-flap LASIK (130 µm head). In ASA, the Moria Epi-K hydroseparator was used. LASIK flaps were created using the Moria M-2 mechanical microkeratome. The corneal hysteresis (CH) and corneal resistance factor (CRF) were measured preoperatively and 3 months after surgery, using the Ocular Response Analyzer.**Results:** Ten patients (19 eyes) underwent ASA, 11 patients (16 eyes) underwent thin-flap LASIK, and 11 patients (16 eyes) underwent thick-flap LASIK. The mean preoperative CH was 10.47±0.88, 10.52±1.4, and 11.28±1.4 mmHg (p=0.043), respectively, decreasing after surgery by 1.75±1.02, 1.66±1.00, and 2.62±1.03 mmHg (p=0.017). The mean reduction of CH per micron of central corneal ablation was 0.031, 0.023, and 0.049 mmHg/µm (p=0.005). Mean preoperative CRF was 10.11±1.28, 10.34±1.87, and 10.62±1.76 mmHg (p=0.66), decreasing after surgery by 2.33±1.35, 2.77±1.03, and 2.92±1.10 mmHg (p=0.308). The mean reduction of CRF per micron of central corneal ablation was 0.039, 0.040, and 0.051 mmHg/µm (p=0.112).**Conclusion:** Thick-flap LASIK caused a greater reduction of CH and CRF than thin-flap LASIK and ASA, although this was statistically significant only for CH. ASA and thin-flap LASIK were found to be biomechanically similar.
Keywords: Hysterisis;Lasik;Microkeratome.

257. Incidence and Risk Factors of Early Onset Glaucoma Following Pediatric Cataract Surgery in Egyptian Children: 1 Year Study

Ghada Ismail Gawdat Maha Mohamed Youssef Nermeen Mostafa Bahgat Dina Mohamed El-Fayoumi Mohamed Amr Salah Eddin

Journal Of Current Glaucoma Practice, 11: 80-85 (2017)

Aim: to study incidence and risk factors of glaucoma occurring within 1 year following pediatric cataract surgery in Egyptian children.**Materials:** This is a prospective nonrandomized study conducted at Aburich Children's Hospital, over a period of 1 year on a cohort of Egyptian patients with congenital and infantile cataract. One-hundred and fifty eyes of 88 patients were enrolled in this study. All the patients underwent anterior approach removal of lens matter, whereas primary intraocular lens implantation (IOL) was carried at the age of one and two years for unilateral and bilateral cases, respectively. IOP was measured at one week, one month, three months, six months, 9 months and one year. For those who developed glaucoma, time of diagnosis and associated risk factors were reported.**Results:** The incidence of glaucoma was 11.33% (17 of 150 eyes), while incidence of glaucoma suspect was 0.67% (1 of 150 eyes) in the first year following cataract surgery. The majority of the cases (66.7%)

were discovered in the first 3 months post cataract surgery. Age at time of cataract surgery, the state of aphakia/ pseudophakia, persistent fetal vasculature (PFV) and microphthalmia were not found to be significant predictors of early onset glaucoma in our study.**Conclusion:** Aphakic glaucoma continues to be a devastating condition with high incidence during first year following cataract surgery.Clinical significance: Regular follow-up should start as early as possible following cataract surgery. Further prospective studies with larger study population are required.

Keywords: Aphakic Glaucoma;Congenital Cataract; Incidence; Prospective;Risk Factors .

258. Comparison of Different Intraocular Pressure Measurement Techniques in Normal Eyes and Post Small Incision Lenticule Extraction

Mohamed Hosny , Fayrouz Aboalazayem, Hoda El Shiwy and Mohsen Salem

Clinical Ophthalmology, 2017:11: 1309-1314 (2017)

Purpose: The purpose of the study was to determine the accuracy of intraocular pressure (IOP) measurement after small incision lenticule extraction (SMILE) using Goldmann applanation tonometry (GAT) and ocular response analyzer (ORA).**Methods:** This is a prospective clinical study that was conducted on 30 eyes in the interval between February 2016 and September 2016. The age of the patients ranged between 19 and 40 years. The patients underwent SMILE surgery using the femto laser. IOP was measured preoperatively and 1 month postoperatively by both techniques, the GAT and the ORA.**Results:** GAT recorded lower values than ORA values (IOPcc) preoperatively and postoperatively and the difference was statistically significant. Both GAT and ORA IOP measurements decreased after SMILE. There was no statistically significant correlation between the changes in the GAT and ORA readings and the postoperative corneal pachymetry or the lenticule thickness. Both corneal hysteresis and corneal resistance factor showed significant decline after the procedure, which correlated with the lenticule thickness.**Conclusion:** SMILE causes significant reduction in IOP measurement by ORA and GAT. Corneal biomechanics decreases following SMILE and this correlates with lenticule thickness.

Keywords: Ocular Response Analyzer;Small Incision Lenticule Extraction;Corneal Hysteresis.

Dept. of Orthopaedic

259. Treatment of Congenital Clasped Thumb in Arthrogryposis

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Journal Of Hand Surgery - European Volume, 42 (2017) IF: 2.191

We report the result of treatment of 69 complex clasped thumbs in 39 patients with distal arthrogryposis. The mean age at surgery was 30 months. Surgical reconstruction included skin augmentation of the first web using modified dorsal rotation advancement flap (Abdel-Ghani flap), a la Carte release of tight structures of the first web, and chondrodesis of the thumb metacarpophalangeal joint. The mean follow-up was 4 years. We prefer chondrodesis because of the presence of global instability, abnormal joint structure, abnormal articular surfaces, and inefficient muscles for transfer. Also, chondrodesis shortens the thumb and may alleviate the need for release of deficient palmar skin and lengthening of a short flexor pollicis longus. The Abdel-Ghani flap provides ample skin that gives a wide rounded web. It is a simple procedure with minimal donor site morbidity. Surgical reconstruction significantly improved the cosmetic appearance and function of the thumb.

Keywords: Clasped Thumb;Complex Clasped Thumb;Ghani Flap;Thumb In Arthrogryposis.

260. Postoperative Physical Therapy Program for Latissimus Dorsi and Teres Major Tendons Transfer to Rotator Cuff In Children with Obstetrical Brachial Plexus Injury

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European Journal Of Physical And Rehabilitation Medicine, 53(2): 277-285 (2017) IF: 1.827

Background: The Transfer of Latissimus Dorsi And Teres Major Tendons To Rotator Cuff Have Been Developed To Rebalance The Muscular Dysfunction And Improve Shoulder Range Of Motion In Children with Obstetrical Brachial Plexus Palsy (Obpp). No Previous Study Reported The Ideal Postoperative Physical Therapy Program for These Cases. **Aim:** The Aim Of The Present Study Was to Design Appropriate Postoperative Physical Therapy (Pt) Program After Latissimus Dorsi And Teres Major Tendons Transfer to Rotator Cuff In Obpp To Improve Upper Limb Function. **Design:** Time Series Design. Setting: The Patients Were Recruited From Outpatient Clinic Of Kasr El Aini Hospital, Cairo, Egypt. Population: Forty Seven Obpp Infants (4.64±1.21 Years with A Range Of 2.5 to 7 Years, 21male and26 Female) Were Allocated To One Group. All Patients Had Functional Limitation In The Involved Arm Due to Muscle Paralysis and Contracture. Twenty-Five Patients Had C5-C6 Nerve Root Lesions While 22 Had C5-C6-C7 Nerve Root Lesions. **Methods:** The Children Underwent The Surgical Procedures Of The Transfer Of Latissimus Dorsi And Teres Major Tendons To Rotator Cuff. After The Surgery The Children Participated In A Designed Physical Therapy Program For 6 Months. Active Shoulder Abduction, Flexion And External Rotation Range Of Motion (ROM) Were Assessed By Electrogoniometer, And Functional Assessments Were Measured Using The Modified Mallet Scale. All Measurements Were Taken Preoperative, 6 Weeks, 3 Months, And 6 Months Postoperatively After The Application Of The Designed Pt Program. Results: Repeated Measure Analysis Of Variance (Anova) Followed By Bonferroni Post-Hoc Test Were Used To Show The Improvement In All Measured Variables. Analysis Revealed That Shoulder Abduction, Flexion And External Rotation ROM And Shoulder Function Measured By Modified Mallet Scale Were Significantly Improved ($P<0.0001$) After The Designed Postoperative PT Program. **Conclusions:** It Can Be Concluded That The Combination Treatment Of Surgical Procedure And The Postoperative Physical Therapy Program Seem To Be Effective In Improving Shoulder And Arm Functions In Children With Obpp. Clinical Rehabilitation Impact: This Study Describes A Detailed Physical Therapy Program After Latissimus Dorsi And Teres Major Tendons Transfer To Rotator Cuff In Obpp

Keywords: Physical Therapy Modalities;Rehabilitation;Brachial Plexus Neuropathies;Superficial Back Muscles;Tendons;Rotator Cuff.

261. Treatment of the Upper Extremity Contracture/Deformities

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Journal Of Pediatric Orthopedics, 37: 0-0 (2017) IF: 1.695

Patients with arthrogryposis multiplex congenita have a characteristic upper extremity resting posture consisting of internal rotation of the shoulders, elbow extension, flexed wrists, thumb-in palm deformities, and variable degrees of finger contractures. Treatment of these patients is aimed at improving independence and performance of activities of daily living. Although each area needs to be assessed independently for the most appropriate surgical procedure, often multiple areas can be addressed at the same operative setting. This limits the number of anesthetic exposures and cast immobilization time. The following is a synopsis of treatment strategies presented at the second international symposium on Arthrogryposis which took place in St Petersburg in September 2014.
Keywords: Arthrogryposis;Arthrogryposis Multiplex Congenital;Amyoplasia;Congenital Contracture Syndromes;Distal Arthrogryposis.

Dept. of Parasitology

262. Molecular Prevelance and Estimated Risk of Cutaneous Leishmaniasis in Libya

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Journal Of Microbiology Immunology And Infection, 50: 805-810 (2017) IF: 2.973

Background/Purpose: Cutanoeus leishmaniasis (CL) is an endemic disease in theMediterranean area including Libya. The aim of the present study is to detect the prevalentLeishmaniaspecies obtained from smeared cutaneous lesions in addition to studying thediverse sociodemographic risk factors of the reported cases from different provinces of Libya.**Methods:**A total of 250 archived microscopic slides from clinically suspected cases of CLattending the leishmaniasis clinic in the Dermatology Department, Tripoli Central Hospital,Tripoli, Libya, were microscopically examined.Leishmania-DNA was amplified using combinedpolymerase chain reaction (PCR) targeting kinetoplast-DNA (kDNA) and ribosomal internal transcribed spacer 1 (ITS1)-DNA with restriction fragment length polymorphism analysis for directLeishmaniaspecies identification.**Results:**Using kDNA and ITS1-PCR, 22.5% and 20% of cases were positive, respectively. Only14.4% of cases were positive using microscopy. Nominating ITS1-PCR as the reference standard,kDNA-PCR assay was highly sensitive while microscopy was 100% specific but of limited sensi-tivity (72%) with a substantial agreement and an overall accuracy of 94.4%.Leishmania majorandLeishmania tropicawere the predominant species reported from the north-western prov-inces including Tripoli, Zintan, and Gharyan with their related subprovinces; Asabaa, Mizdan,Alkawasem, and Alorban. CL prevailed more among men and residents of rural areas. Housewives and students were the most affected professions. Children were the least affected,while the middle-aged were the most affected age group.**Conclusion:** L. majorandL. tropicaare the predominant species in the north-western regionsof Libya. ITS1-PCR-restriction fragment length polymorphism assay offered a sensitive, spe-cific, and faster diagnostic method especially with negative parasitologic examination.
Keywords: Archived Microscopic Slides;Cutaneous Leishmaniasis;Its1-Pcr;Kdna-Pcr.

263. Anti-Cryptosporidium Efficacy of Olea Europaea and Actinidia Deliciosa in A Neonatal Mouse Model

Mona M. Khater , Shaimaa H. El-Sayed , Hebat-Allah S. Yousof , Soheir S. Mahmoud, Nadia El-Dib and Ayman A. El-Badry

Kasr Al Ainy Medical Journal, 23: 32-37 (2017) IF: 2

BackgroundCryptosporidiosis is caused by an opportunistic protozoan parasite Cryptosporidium. It may be life-threatening in immunocompromised individuals, children and the elderly. To date, no specific therapy has been proven to be effective against Cryptosporidium, which necessitates exploring for new therapeutics. This study evaluated the anti-Cryptosporidium therapeutic potential of two natural medicinal plants − Olea europaea (olive leaf extract) and Actinidia deliciosa (kiwi fruit pulp extract) − in four different groups of experimentally infected neonatal mice.**Materialsand methods**Anti-Cryptosporidium efficacies of tested extracts were evaluated in four groups of age-matched neonatal Swiss albino mice parasitologically by detection of Cryptosporidium parvum oocysts and copro-DNA, using microscopy and nested PCR assay, as well as histopathological examination of their small intestines.Results **and conclusion**There was a 100% reduction in Cryptosporidium oocyst excretion in stool and copro-DNA of O. europaea-treated infected mice after 2 weeks of drug administration, whereas there was persistence of oocysts in the stool of A. deliciosa-treated mice until scarification. Obtained results make O. europaea a promising natural therapeutic for cryptosporidiosis, a scientific case that calls for further clinical trials to replicate this model in human individuals.
Keywords: Actinidia Deliciosa;Cryptosporidium Parvum;Neonatal Mice;Olea Europaea.

264. Atorvastatin Repurposing for the Treatment of Cryptosporidiosis in Experimentally Immunosuppressed Mice

Noha Madbouly Taha, Hebat-Allah Salah A. Yousof, Shaimaa H. El-Sayed, Azza Ibrahim Younis and Mohamed Sherif Ismail Negm

Experimental Parasitology, 181: 57-70 (2017) IF: 1.724

The present study was conducted on 200 male mice for the detection of the effect of Atorvastatin onCryptosporidium spp. infection versus the commercially used drug Nitazoxanide in experimentally immunosuppressedmice. Atorvastatin was used alone at low dose (20 mg/kg), high dose (40 mg/kg), and

combinedwith Nitazoxanide (1000 mg/kg) with either the low dose or high dose for five consecutive days.Parasitological assessment of the drug effectwas done usingModified Z-N staining of stool samples collectedfrom mice. Results revealed a reduction of the number of oocysts shed with percentage of reduction on the21st day post infection by 53.7%, 67.2%, 70.1% & 77.5%, respectively, compared to the infected untreatedgroup. The Nitazoxanide treated group showed 52.7% reduction. In addition, examination of small and largeintestinal contents after mice scarification revealed reduced numbers of oocysts by 56.2%-58.8%, 65.1%-65.3%, 70.6%-73.9%and 77.8%-79.9%, respectively, compared to 51.2%-54.1% in Nitazoxanide treated group.The histopathological examination of sections from duodenum, jejunum, ileum, colon, stomach and lungsalso revealed a significant improvement of the histopathological changes in Atorvastatin treated groups andmore remarkable improvement in the groups treated with combined drugs as compared to infected untreatedgroup. Accordingly, the combination of Atorvastatin and Nitazoxanide showed a synergistic effectthrough reduction of the number of oocysts shed and improvement of the histopathological changesinduced by Cryptosporidium spp. infection in the small intestine, colon, stomach and lungs of infectedimmunosuppressed mice in comparison to that induced by either Nitazoxanide or Atorvastatin alone.

Keywords: Cryptosporidium; Immunosuppressed Mice; Atorvastatin;Nitazoxanide; Histopathological Assessment; Drug Effects.

265. Case Report of Human Urinary Myiasis Caused by Clogmia Albipunctata (Diptera: Psychodidae) with Morphological Description of Larva and Pupa

Nadia Ali El-Dib , Wegdan Mohamed Abd El Wahab , Doaa Ahmed Hamdy and Mona Ibrahim Ali

Journal Of Arthropod Borne Disease, 11(4): 533-538 (2017) IF: 1.218

Background: Urinary myiasis is a form of myiasis caused mainly by larvae of Fannia scalaris, Musca, Sarcophaga, Lucilia, Wohlfahrtia, Calliphora, and rarely by Eristalis and Clogmia albipunctata.**Methods:** This report presents a case of female patient complaining of dysuria and frequency of micturition associated with intermittent passage of small, motile, dark-colored worm-like organisms in urine. She was a married housewife aged 24 years old referred from the Tropical Outpatient Clinic of Beni-Suef University Hospital, Egypt. The patient was subjected to a full questionnaire sheet and investigations such as CBC, stool and urine analysis and urinary ul-trasonography. Collected larvae and pupae from urine samples were examined macroscopically and microscopically.**Results:** The examined larvae and pupae belonged to C. albipunctata. Ivermectin was prescribed to the patient with complaint withdrawal and complete disappearance of the larvae from urine.

Keywords: Urinary Myiasis; Clogmia Albipunctata; Egypt

266. Genotypic Identification of Cystoisospora in Immunocompromised Patients Using Tm-Variation Analysis

Maha M.A. Basyoni and Hany Ahmed Fouad Elghobary

Korean Journal Of Parasitology, 55 (6): 601-606 (2017) IF: 0.889

Cystoisospora is responsible for morbidity in immunocompromised patients. PCR is sensitive for diagnosing Cystoisospora; however, it needs reevaluation for differential molecular diagnosis of cystoisosporiasis. We aimed at evaluatingmelting curve analysis (MCA) after real-time PCR (qPCR) in diagnosis and genotyping of Cystoisospora as an alternativeto conventional PCR. We included 293 diarrheic stool samples of patients attending the Department of Clinical Oncologyand Nuclear Medicine of Cairo University Hospitals, Egypt. Samples were subjected to microscopy, nested PCR(nPCR), and qPCR targeting the internal transcribed spacer 2 region (ITS2) of the ribosomal RNA (r RNA) gene followedby melting temperatures (Tms) analysis and comparing the results to PCR-RFLP banding patterns. Using microscopy andITS2-nPCR, 3.1% and 5.8% of cases were Cystoisospora positive, respectively, while 10.9% were positive using qPCR.Genotyping of Cystoisospora by qPCR-MCA revealed 2 genotypes. These genotypes matched with 2 distinct meltingpeaks with specified Tms at 85.8˚C and 88.6˚C, which indicated genetic variation among Cystoisospora isolates in Egypt.Genotype II proved to be more prevalent (65.6%). HIV-related Kaposi sarcoma and leukemic patients harbored both genotypeswith a tendency to genotype II. Genotype I was more prevalent in lymphomas and mammary gland tumors whilecolorectal and hepatocellular tumors harbored genotype II suggesting that this genotype might be responsible for the developmentof cystoisosporiasis in immunocompromised patients. Direct reliable identification and differentiation of Cystoisosporaspecies could be established using qPCR-Tms analysis which is useful for rapid detection and screening ofCystoisospora genotypes principally in high risk groups.

Keywords: Cystoisospora;Melting Curve Analysis;Qpcr.

267. Giardia Intestinalis and Helicobacter Pylori Co-Infection: Estimated Risks and Predictive Factors in Egypt

Ayman A. El-Badry, Marwa A. Ghieth, Doaa A. Ahmed and Mousa A.M. Ismail

Journal of The Egyptian Society of Parasitology, 47: 19-24 (2017)

Giardia intestinalis (G. intestinalis) and Helicobacter pylori (H.pylori) are two intestinal pathogenssharing the same mode of infection. This study determines the prevalence of G. intestinalis and H. pylori co-infection estimated risks and predictive factors for susceptibility to co-infection. Stool sampleswere collected from 801 patients suffering gastrointestinal symptoms and living in Greater Cairo.They were subjected to coproscopic examination for detection of intestinal parasites and copro PCRrestriction fragment length polymorphism (PCR-RFLP) and sequencing targeting the glutamate dehydrogenase (gdh) gene for Giardia. Positive samples for giardiasis were further subjected to coproimmunoassay to detect H. pylori coprontigen. Among 63

cases of giardiasis by both microscopy andPCR (84.1 % assemblage B and 15.9% AII), 52.5% were co-infected with H. pylori. Co-infection wasmore frequent with assemblage B (50.9%) than assemblage A (40%). Among studied variables of assemblage type, gender, or harboring more than one parasite (polyparasitism), only school age children,was signifi-cantly associated (P value: 0.02) with Giardia and H. pylori co-infection. Physicians inEgypt must consider G. intestinalis and H. pylori as prevailing intestinal pathogens with predominanceof Giardia assemblage B. Giardia and H. pylori co-infection is common in school aged children andmodulates gastrointestinal manifestations. Intestinal parasitism and H. pylori association is complexand necessitates further genomic studies for a better understanding of the epidemiological and clinicalimpact of co-infection, as well as possible strategies for their treatment and control.

Keywords: Giardiasis;Helicobacter;Co-Infection;Pcr-Rflp;Gdh;Immunochromatograpghy.

268. Diagnostic Biomarkers in Murine Cryptosporidiosis: Dose- and Age-Related Infection.

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Journal Of Parasitic Diseases, 41: 831-836 (2017)

Increasing prevalence of Cryptosporidium raises the importance to explore different aspects of its infection. In the absence of reproducible in vitro culturing, animal model is the only experimental method to study Cryptosporidium. Our study evaluated Cryptosporidium infection using coproscopy, copro-antigen and copro-DNA for early detection of murine cryptosporidiosis. Hundred and forty albino mice (neonates and adult) were divided into two groups, control group received sterile PBS solution, and infected groups were inoculated with molecularly characterized Cryptosporidium parvum oocysts and further subdivided into three subgroups for infectious dose response detection. Mice fecal samples were collected every 4 h on the first day and then daily and examined for fecal oocysts, copro-antigen and copro-DNA. Four mice from each subgroup were killed at 12, 24 and 48 h post-infection (P-I), and their intestines were examined for cryptosporidial mucosal DNA. Cryptosporidium copro-antigen and copro-DNA were detected 4 and 8 h P-I in infected neonatal and adult mice, respectively, and intestinal mucosal DNA was detected after 12 h in both. Microscopy was able to detect oocysts 48 h P-I. Inoculated C. parvum oocysts were recovered in feces of infected mice without genotypic changes. Neonate mice showed higher susceptibility for cryptosporidial infection than adults without statistical differences for the given infectious doses. Both copro-immunoassay and copro-nPCR assays can early detect Cryptosporidium infection; however, nPCR was able to identify Cryptosporidium species, making nPCR a reliable biomarker for early detection in murine model.

Keywords: Copro-Dna;Cryptosporidium;Diagnostic Biomarker;Fecal Immunoassay;Murine;Nested Pcr.

Dept. of Pathology

269. Value of H-Tert and Cd10 in Differentiating Endometrial Carcinoma from Atypical Endometrial Hyperplasia: an Immunohistochemical Study

Maha E. Salama, Ahmed N. Eesa and Ahmed A. Soliman

Kasr Al Ainy Medical Journal, 23: 73-79 (2017) IF: 2

Context: The histopathological differentiation between atypical endometrial hyperplasia and well-differentiated conventional endometrial carcinoma is sometimes tricky, particularly in endometrial dilatation and curettage specimens, to the extent that a differentiating marker is sought.**Aim :**This study was devoted to evaluate the immunohistochemical expression of CD10: and human telomerase reverse transcriptase (H-TERT) in atypical endometrialhyperplasia and endometrial carcinoma to determine their role in differentiatingboth lesions. **Patients and methods:**Thirty paraffin blocks of endometrial biopsy distributed as 15 cases of atypical endometrial hyperplasia and 15 cases of conventional endometrial carcinoma were studied immunohistochemically using antibodies against CD10 and H-TERT. Datawere represented as mean, SD, and percentage. The Fisher exact test was used tocompare immunoexpression between atypical endometrial hyperplasia andendometrial carcinoma. The Mann–Whitney U-test and the Kruskal–Wallis testwere used to compare between the two marker expressions in both lesions. Theone-way analysis of variance test was used to determine whether the differencewas significant. A P-value of less than 0.05 was considered significant.**Results**A statistically significant difference was observed between CD10 and H-TERTexpression in both lesions, but only H-TERT significantly correlated withinternational federation of gynecology and obstetrics (FIGO) tumor grades inendometrial carcinoma cases. Although H-TERT labeling index upregulates withCD10 weaker expression, the relation between the two markers was not significant.**Conclusion**Both CD10 and H-TERT may be involved in the progression from the atypicalendometrial hyperplasia to endometrial carcinoma as well as to differentiatebetween the two lesions. However, only H-TERT may be associated with theprognosis of endometrial carcinoma.

Keywords: Cd10;Endometrial Carcinoma;H-Tert;Hyperplasia.

270. Immunohistochemical Study of the Expression of Oct-4 in Bladder Urothelial Carcinoma

Amal Asar, Samia Gabal, Noha Helmy and Sara E. Khalifa

Kasr Alainy Medical Journal, 23: 141-147 (2017) IF: 2

Background :A cancer stem cell model was proposed for bladder carcinoma, as there is a subpopulation of tumor cells capable of resisting conventional therapies and surviving treatment to facilitate recurrence and metastasis. Oct-4 is a pluripotency marker of stem cells, which has been found to be associated with worse prognosis in multiple somatic tumors.**Aim :**We aimed to explore the expression of Oct-4 protein in urothelial carcinoma and some of its variants and also determine whether Oct-4 expression and level of expression are associated with the clinicopathological parameters such as age, sex, grade, stage, morphology, and tumor progression.**Patients and methods :**We tested 84 urothelial tumor specimens including all grades, stages, and some variants of urothelial carcinoma for the expression of Oct-4. Two sections were prepared per case for histologic

evaluation and immunohistochemical staining by Oct-4 monoclonal antibody. The immunostaining was evaluated semiquantitavely through obtaining an H-score for each case.**Results :**All cases took up the Oct-4 stain except for low-grade tumors and carcinoma in-situ cases. The highest percentage of positive cases was seen in invasive urothelial carcinoma with variant morphology other than conventional (19.1%). Presence of Oct-4 expression was significantly associated with grade (P=0.03), histopathologic type of urothelial tumor (P<0.001), category (P<0.001), and tumor progression (P=0.001). Conversely, the level of Oct-4 expression among positive cases was not found to be associated with any of the studied parameters.**Conclusion:** Our study calls for considering Oct-4 as a novel marker of prognostic significance that could be implemented in target therapies for urothelial carcinoma.
Keywords: Bladder Urothelial Carcinoma;Cancer Stem Cells;Oct-4;Tumor Progression;Urothelial Carcinoma Variants.

271. Fgfr3, A Marker Suggestive of Favorable Prognosis in Urothelial Carcinoma

Sara E. Khalifa, Rasha A. Khairy and Rasha Ramadan

Comparative Clinical Pathology, 26 (2017)

The detection of fibroblast growth factor receptor 3(FGFR3) mutations in noninvasive bladder cancer mostly and afinding of FGFR3 overexpression in many invasive bladdercancers (BC) has created hope that targeted therapy againstFGFR3may have amajor role in the treatment of BC.We aimedto evaluate immunohistochemically the expression of FGFR3 inurothelial carcinoma of the urinary bladder and correlate theresults with various clinicopathologic variables to show the possibleprognostic value of this marker. This study included 100archived paraffin blocks of variable grades and stages ofurothelial carcinoma. All cases were immunohistochemicallystained with anti-FGFR3 antibody. FGFR3 immunostainingwas detected in 88% (88/100) of urothelial carcinoma cases. Asignificant correlation was detected between FGFR3 expressionswith the grade and depth of tumor invasion as 34% oflow-grade cases (P = 0.002) and 26% of pTa-stage tumors(P = 0.02) showed high level of FGFR3 expression.Moreover, FGFR3 was significantly highly expressed in 34%of non-muscle-invasive tumors (P = 0.007), 34%of tumors withpapillary growth pattern (P = 0.017), and lower-stage tumors(P = 0.00). In conclusion, high expression of FGFR3 inurothelial carcinomas with statistically significant relationshipsregarding its expression levels with parameters of favorableprognosis like low grade and pTa stage, presence of papillaryarchitecture, and lower-stage urothelial carcinomas raised theprobability that FGFR3 expression may have a role in earlydevelopment of urothelial neoplasia. Further studies are requiredto investigate the applicability of FGFR3-targeted agents as anadditional treatment regimen in patients with FGFR3overexpression.
Keywords: Bladder Fgfr3 Carcinoma Prognosis.

Dept. of Pediatrics

272. Mutations in Keops-Complex Genes Cause Nephrotic Syndrome with Primary Microcephaly

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Nature Genetics, 49: 1529-1537 (2017) IF: 27.959

Galloway–Mowat syndrome (GAMOS) is an autosomal-recessive disease characterized by the combination of early-onset nephrotic syndrome (SRNS) and microcephaly with brain anomalies. Here we identified recessive mutations in OSGEP, TP53RK, TPRKB, and LAGE3, genes encoding the four subunits of the KEOPS complex, in 37 individuals from 32 families with GAMOS. CRISPR–Cas9 knockout in zebrafish and mice recapitulated the human phenotype of primary microcephaly and resulted in early lethality. Knockdown of OSGEP, TP53RK, or TPRKB inhibited cell proliferation, which human mutations did not rescue. Furthermore, knockdown of these genes impaired protein translation, caused endoplasmic reticulum stress, activated DNA-damage-response signaling, and ultimately induced apoptosis. Knockdown of OSGEP or TP53RK induced defects in the actin cytoskeleton and decreased the migration rate of human podocytes, an established intermediate phenotype of SRNS. We thus identified four new monogenic causes of GAMOS, describe a link between KEOPS function and human disease, and delineate potential pathogenic mechanisms.
Keywords: Keops-Complex Genes Cause Nephrotic Syndrome With Primary.

273. Eliglustat Maintains Long-Term Clinical Stability in Patients with Gaucher Disease Type 1 Stabilized on Enzyme Therapy

Amal El-Beshlawy, et all

Blood, 129: 2375-2383 (2017) IF: 13.164

In the phase 3 Study of Eliglustat Tartrate (Genz-112638) in Patients With Gaucher Disease Who Have Reached Therapeutic Goals With Enzyme Replacement Therapy (ENCORE), at 1 year, eliglustat was noninferior to imiglucerase enzyme therapy in maintaining stable platelet counts, hemoglobin concentrations, and spleen and liver volumes. After this primary analysis period, patients entered a long-term extension phase in which all received eliglustat. Duration on eliglustat ranged from 2 to 5 years, depending on timing of enrollment (which spanned 2 years), treatment group to which patients were randomized, and whether they lived in the United States when commercial eliglustat became available. Here we report long-term safety and efficacy of eliglustat for 157 patients who received eliglustat in the ENCORE trial; data are available for 46 patients who received eliglustat for 4 years. Mean hemoglobin concentration, platelet count, and spleen and liver volumes remained stable for up to 4 years. Year to year, all 4 measures remained collectively stable (composite end point relative to baseline values) in ≥85% of patients as well

as individually in ≥92%. Mean bone mineral density z scores (lumbar spine and femur) remained stable and were maintained in the healthy reference range throughout. Eliglustat was well tolerated over 4 years; 4 (2.5%) patients withdrew because of adverse events that were considered related to the study drug. No new or long-term safety concerns were identified. Clinical stability assessed by composite and individual measures was maintained in adults with Gaucher disease type 1 treated with eliglustat who remained in the ENCORE trial for up to 4 years.
Keywords: Eliglustat Treatment;Mean Hemoglobin Concentration;Platelet Count; and Spleen And Liver Volumes;Mean Bone Mineral Density Z Scores.

274. Advillin Acts Upstream of Phospholipase C E1 in Steroid-Resistant Nephrotic Syndrome

Neveen A. Soliman, Arvind Bagga, Shrikant Mane, Mohamad A. Jairajpuri, Richard P. Lifton, Seema Khurana, Jose C. Martins and Friedhelm Hildebrandt

Journal of Clinical Investigation, 127(12): 4257-4296 (2017) IF: 12.784

Teroid-resistant nephrotic syndrome (SRNS) is a frequent cause of chronic kidney disease. Here, we identified recessive mutations in the gene encoding the actin-binding protein advillin (AVIL) in 3 unrelated families with SRNS. While all AVIL mutations resulted in a marked loss of its actin-bundling ability, truncation of AVIL also disrupted colocalization with F-actin, thereby leading to impaired actin binding and severing. Additionally, AVIL colocalized and interacted with the phospholipase enzyme PLCE1 and with the ARP2/3 actin-modulating complex. Knockdown of AVIL in human podocytes reduced actin stress fibers at the cell periphery, prevented recruitment of PLCE1 to the ARP3-rich lamellipodia, blocked EGF-induced generation of diacylglycerol (DAG) by PLCE1, and attenuated the podocyte migration rate (PMR). These effects were reversed by overexpression of WT AVIL but not by overexpression of any of the 3 patient-derived AVIL mutants. The PMR was increased by overexpression of WT Avil or PLCE1, or by EGF stimulation; however, this increased PMR was ameliorated by inhibition of the ARP2/3 complex, indicating that ARP-dependent lamellipodia formation occurs downstream of AVIL and PLCE1 function. Together, these results delineate a comprehensive pathogenic axis of SRNS that integrates loss of AVIL function with alterations in the action of PLCE1, an established SRNS protein.
Keywords: Upstream Of Phospholipase C E1 In Steroid-Resistant Nephrotic.

275. Clinical, Genetic, and Structural Basis of Congenital Adrenal Hyperplasia Due to 11B-Hydroxylase Deficiency

Noha Musa Azab Musa , et all

Proceedings of The National Academy of Sciences of The United States of America, 114 (2017) IF: 9.661

Congenital adrenal hyperplasia (CAH), resulting from mutations in CYP11B1, a gene encoding 11β-hydroxylase, represents a rare autosomal recessive Mendelian disorder of aberrant sex steroid production. Unlike CAH caused by 21-hydroxylase deficiency, the disease is far more common in the Middle East and North Africa, where consanguinity is common often resulting in identical mutations. Clinically, affected female newborns are profoundly virilized (Prader score of 4/5), and both genders display significantly advanced bone ages and are oftentimes hypertensive. We find that 11-deoxycortisol, not frequently measured, is the most robust biochemical marker for diagnosing 11β-hydroxylase deficiency. Finally, computational modeling of 25 missense mutations of CYP11B1 revealed that specific modifications in the heme-binding (R374W and R448C) or substrate-binding (W116C) site of 11β-hydroxylase, or alterations in its stability (L299P and G267S), may predict severe disease. Thus, we report clinical, genetic, hormonal, and structural effects of CYP11B1 gene mutations in the largest international cohort of 108 patients with steroid 11β-hydroxylase deficiency CAH.
Keywords: Steroid Hormones;Missense Mutations;Classic Cah; Ambiguous Genitalia.

276. Exome Sequencing Discerns Syndromes in Patients from Consanguineous Families with Congenital Anomalies of the Kidneys and Urinary Tract

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Journal Of The American Society of Nephrology, 28: 69-75 (2017) IF: 8.966

Congenital anomalies of the kidneys and urinary tract (CAKUT) are the leading cause of CKD in children, featuring a broad variety of malformations. A monogenic cause can be detected in around 12% of patients. However, the morphologic clinical phenotype of CAKUT frequently does not indicate specific genes to be examined. To determine the likelihood of detecting causative recessive mutations by whole-exome sequencing (WES), we analyzed individuals with CAKUT from 33 different consanguineous families. Using homozygosity mapping and WES, we identified the causative mutations in nine of the 33 families studied (27%). We detected recessive mutations in nine known disease–causing genes: ZBTB24, WFS1, HPSE2, ATRX, ASPH, AGXT, AQP2, CTNS, and PKHD1. Notably, when mutated, these genes cause multiorgan syndromes that may include CAKUT as a feature (syndromic CAKUT) or cause renal diseases that may manifest as phenocopies of CAKUT. None of the above monogenic disease–causing genes were suspected on clinical grounds before this study. Follow-up clinical characterization of those patients allowed us to revise and detect relevant new clinical features in a more appropriate pathogenetic context. Thus, applying WES to the diagnostic approach in CAKUT provides opportunities for an accurate and early etiology–based diagnosis and improved clinical management.
Keywords: Sequencing Discerns Syndromes In Patients From Consanguineous.

277. Genomic and Clinical Profiling of A National Nephrotic Syndrome Cohort Advocates A Precision Medicine Approach to Disease Management

Marwa M. Nabhan, et all

Kidney International, 91(4): 937-947 (2017) IF: 8.395

Steroid Resistant Nephrotic Syndrome (SRNS) in children and young adults has differing etiologies with monogenic disease accounting for 2.9–30% in selected series. Using whole exome sequencing we sought to stratify a national population of children with SRNS into monogenic and non-monogenic forms, and further define those groups by detailed phenotypic analysis. Pediatric patients with SRNS were identified via a national United Kingdom Renal Registry. Whole exome sequencing was performed on 187 patients, of which 12% have a positive family history with a focus on the 53 genes currently known to be associated with nephrotic syndrome. Genetic findings were correlated with individual case disease characteristics. Disease causing variants were detected in 26.2% of patients. Most often this occurred in the three most common SRNS-associated genes: NPHS1, NPHS2, and WT1 but also in 14 other genes. The genotype did not always correlate with expected phenotype since mutations in OCRL, COL4A3, and DGKE associated with specific syndromes were detected in patients with isolated renal disease. Analysis by primary/presumed compared with secondary steroid resistance found 30.8% monogenic disease in primary compared with none in secondary SRNS permitting further mechanistic stratification. Genetic SRNS progressed faster to end stage renal failure, with no documented disease recurrence post-transplantation within this cohort. Primary steroid resistance in which no gene mutation was identified had a 47.8% risk of recurrence. In this unbiased pediatric population, whole exome sequencing allowed screening of all current candidate genes. Thus, deep phenotyping combined with whole exome sequencing is an effective tool for early identification of SRNS etiology, yielding an evidence-based algorithm for clinical management.

Keywords: Cytoskeleton;Focal Segmental Glomerulosclerosis;Nephrotic Syndrome;Pediatric Nephrology;Podocyte;Proteinuria.

278. Targeted Gene Panel Sequencing for Early-Onset Inflammatory Bowel Disease and Chronic Diarrhea.

Nermeen Mouftah Galal , *et all*

Inflammatory Bowel Diseases, 23(12): 2109-2120 (2017) IF: 4.525

Background: In contrast to adult-onset inflammatory bowel disease (IBD), where many genetic loci have been shown to be involved in complex disease etiology, early-onset IBD (eoIBD) and associated syndromes can sometimes present as monogenic conditions. As a result, the clinical phenotype and ideal disease management in these patients often differ from those in adult-onset IBD. However, due to high costs and the complexity of data analysis, high-throughput screening for genetic causes has not yet become a standard part of the diagnostic work-up of eoIBD patients.**Methods:**We selected 28 genes of interest associated with monogenic IBD and performed targeted panel sequencing in 71 patients diagnosed with eoIBD or early-onset chronic diarrhea to detect causative variants. We compared these results to whole-exome sequencing (WES) data available for 25 of these patients.**Results:** Target coverage was significantly higher in the targeted gene panel approach compared with WES, whereas the cost of the panel was considerably lower (approximately 25% of WES). Disease-causing variants affecting protein function were identified in 5 patients (7%), located in genes of the IL10 signaling pathway (3), WAS (1), and DKC1 (1). The functional effects of 8 candidate variants in 5 additional patients (7%) are under further investigation. WES did not identify additional causative mutations in 25 patients.**Conclusions:** Targeted gene panel sequencing is a fast and effective screening method for monogenic causes of eoIBD that should be routinely established in national referral centers.

Keywords: Ibd-Diarrhea-Genetic Panel.

279. Prediction of 3- To 5-Month Outcomes from Signs of Acute Bilirubin Toxicity In Newborn Infants

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Journal Of Pediatrics, 183: 51-550 (2017) IF: 3.874

Objectve: To evaluate the ability of the bilirubin-induced neurologic dysfunction (BIND) score to predict residual neurologic and auditory disability and to document the relationship of BIND score to total serum bilirubin (TSB) concentration. **Study design :** The BIND score (assessing mental status, muscle tone, and cry patterns) was obtained serially at 6- to 8-hour intervals in 220 near-term and full-term infants with severe hyperbilirubinemia. Neurologic and/or auditory outcomes at 3-5 months of age were correlated with the highest calculated BIND score. The BIND score was also correlated with TSB. **Results :** Follow-up neurologic and auditory examinations were performed for 145/202 (72%) surviving infants. All infants with severe acute bilirubin encephalopathy (BIND scores 7-9) either died or suffered residual neurologic and auditory impairment. Of 24 cases with moderate encephalopathy (BIND 4-6), 15 (62.5%) resolved following aggressive intervention and were normal at follow-up. Three of 73 infants with mild encephalopathy (BIND scores 1-3) but severe jaundice (TSB ranging 33.5-38 mg/dL; 573-650 μmol/L) had residual neurologic and/or auditory impairment. A BIND score ≥4 had a specificity of 87.3% and a sensitivity of 97.4% for predicting poor neurologic outcomes (receiver operating characteristic analysis). BIND scores trended higher with severe hyperbilirubinemia ($r2 = 0.54$, $P < .005$), but 5/39 (13%) infants with TSB ≥36.5 mg/dL (624 μmol/L) had BIND scores ≤3, and normal outcomes at 3-5 months.**Conclusions:** The BIND score can be used to evaluate the severity of acute bilirubin encephalopathy and predict residual neurologic and hearing dysfunction.

Keywords: Aabr Automated Auditory Brainstem Response Abe Acute Bilirubin Encephalopathy Bind Bilirubin-Induced Neurologic Dysfunction Cbe Chronic Bilirubin Encephalopathy Tsb Total Serum Bilirubin

280. Long-Term Hematological, Visceral, and Growth Outcomes in Children with Gaucher Disease Type 3 Treated with Imiglucerase in the International Collaborative Gaucher Group Gaucher Registry

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Molecular Genetics and Metabolism, 120: 47-56 (2017) IF: 3.769

In Gaucher disease (GD), deficiency of lysosomal acid β-glucosidase results in a broad phenotypic spectrum that is classified into three types based on the absence (type 1 [GD1]) or presence and severity of primary central nervous system involvement (type 2 [GD2], the fulminant neuronopathic form, and type 3 [GD3], the milder chronic neuronopathic form). Enzyme replacement therapy (ERT) with imiglucerase ameliorates and prevents hematological and visceral manifestations in GD1, but data in GD3 are limited to small, single-center series. The effects of imiglucerase ERT on hematological, visceral and growth outcomes (note: ERT is not expected to directly impact neurologic outcomes) were evaluated during the first 5 years of treatment in 253 children and adolescents (< 18 years of age) with GD3 enrolled in the International Collaborative Gaucher Group (ICGG) Gaucher Registry. The vast majority of GBA mutations in this diverse global population consisted of only 2 mutations: L444P (77%) and D409H (7%). At baseline, GD3 patients exhibited early onset of severe hematological and visceral disease and growth failure. During the first year of imiglucerase treatment, hemoglobin levels and platelet counts increased and liver and spleen volumes decreased, leading to marked decreases in the number of patients with moderate or severe anemia, thrombocytopenia, and hepatosplenomegaly. These improvements were maintained through Year 5. There was also acceleration in linear growth as evidenced by increasing height Z-scores. Despite devastating disease at baseline, the probability of surviving for at least 5 years after starting imiglucerase was 92%. In this large, multinational cohort of pediatric GD3 patients, imiglucerase ERT provided a life-saving and life-prolonging benefit for patients with GD3, suggesting that, with proper treatment, many such severely affected patients can lead productive lives and contribute to society.

Keywords: Gaucher Disease Type 3;Enzyme Replacement Therapy;Imiglucerase;Registry;Anemia;Thrombocytopenia;Hepatosplenomegaly;Growth.

281. Circulating Microparticles and the Risk of Thromboembolic Events in Egyptian Beta Thalassemia Patients

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Annals Of Hematology, 96(4): 597-603 (2017) IF: 3.083

The presence of elevated numbers of circulating microparticles (MPs) has been hypothesized to be responsible for the occurrence of thromboembolic events (TEEs) in thalassemic patients. Our aim is to evaluate the presence and the thrombotic risk of circulating MPs in thalassemia patients and to determine the difference in MPs between β-thalassemia major (β-TM) and thalassemia intermedia (TI). The percentage of the annexin-labeled MPs, platelet-derived MPs (PMPs), erythrocyte-derived MPs (RMPs), and endothelial-derived MPs (EMPs) was measured by flow cytometry, in 87 thalassemia patients (39 β-TM and 48 TI). By multiple regression analysis, we then assessed the various independent risk factors for the occurrence of TEE. The thalassemic patients who experienced TEE had a significantly higher platelet count, higher percentage of annexin-labeled MPs, and higher percentage of PMPs (p value = 0.014, 0.003, and 0.014, respectively). There was no significant difference between β-TM and TI patients at the level of any of the studied MPs. The predictive risk factors for TEE in thalassemic patients were splenectomy, total and direct bilirubin, the RMPs, and the EMPs (OR = 10.07 (CI = 3.7-27.1), 4.3 (CI = 2.1-8.7), 1.4 (CI = 1.5-6.2), 1.6 (CI = 1.1-2.2), 3.0 (CI = 1.9-4.9), respectively). In conclusion, the elevated numbers of circulating MPs is a risk factor for the TEE in thalassemia patients.

Keywords: Hypercoagulable State;Microparticles;Thalassemia Intermedia;Thalassemia Major.

282.Emerging Antimicrobial Resistance in Early and Late-Onset Neonatal Sepsis.

Lamiaa Mohsen, Nermin Ramy, Dalia Saied, Dina Akmal, Niveen Salama, Mona M. Abdel Haleim and Hany Aly

Antimicrobial Resistance and Infection Control, 6:63: 1-9 (2017) IF: 2.989

Background: Compared to developed countries, the use of antimicrobials in Egypt is less regulated and is available over the counter without the need for prescriptions. The impact of such policy on antimicrobial resistance has not been studied. This study aimed to determine the prevalence of early and late onset sepsis, and the frequency of antimicrobial resistance in a major referral neonatal intensive care unit (NICU).**Methods:**The study included all neonates admitted to the NICU over a 12-month period. Prospectively collected clinical and laboratory data were retrieved, including blood cultures and endotracheal aspirate cultures if performed.**Results:** A total of 953 neonates were admitted, of them 314 neonates were diagnosed with sepsis; 123 with early onset sepsis (EOS) and 191 with late onset sepsis (LOS). A total of 388 blood cultures were obtained, with 166 positive **Results.** Total endotracheal aspirate samples were 127; of them 79 were culture-positive. The most frequently isolated organisms in blood were Klebsiella pneumoniae (42%) and Coagulase negative staphylococcus (19%) whereas in endotracheal cultures were Klebsiella pneumoniae (41%) and Pseudomonas aeruginosa (19%). Gram negative organisms were most resistant to ampicillins (100%), cephalosporins (93%-100%) and piperacillin-tazobactam (99%) with less resistance to aminoglycosides (36%-52%). Gram positive isolates were least resistant to vancomycin (18%). Multidrug resistance was detected in 92 (38%) cultures, mainly among gram negative isolates (78/92).**Conclusions:** Antibiotic resistance constitutes a challenge to the management of neonatal sepsis in Egypt. Resistance was predominant in both early and late onset sepsis. This study supports the need to implement policies that prohibits the non-prescription community use of antibiotics.

Keywords: Antibiotic Susceptibility; Blood Cultures; Early Onset Sepsis; Gram Positive Cocci; Klebsiella Pneumoniae; Late

Onset Sepsis; Multidrug Resistance; Neonatal Sepsis Tracheal Aspirate

283. Serum Vitamin D Level in Egyptian Children with Familial Mediterranean Fever.

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Immunology Letters, 185: 74-78 (2017) IF: 2.86

Background: The aim of the study is to measure plasma vitamin D levels in a group of Egyptian children with familial Mediterranean fever (FMF) compared to healthy children.**Methods:** The study enrolled 52 children with FMF and 40 apparently healthy controls. Serum vitamin D level was measured by enzyme-linked immunosorbent assay.**Results:** The mean serum vitamin D level was significantly lower in children with FMF than control group (12.3±3.4 and 21.2±3.5ng/mL, respectively, p<0.001). Vitamin D level was significantly lower in female patients than males (11.3±2.9, 13.2±3.6, respectively p=0.04). No statistically significant relations were detected between vitamin D level and different clinical, laboratory and genetic variables. **Conclusion:** Vitamin D levels were lower in Egyptian FMF children than healthy controls. There is a speculation that vitamin D deficiency in FMF patients may be related to inflammation. Further studies with larger number of patients before and after Vitamin D, therapy may be needed. Supplementation with high doses of vitamin D seems appropriate for children with FMF.
Keywords: Children;Egyptian Children;Familial Mediterranean Fever;Plasma Vitamin D.

284. Medically Graded Honey Supplementation Formula to Preterm Infants as A Prebiotic: A Randomized Controlled Trial

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Journal Of Pediatric Gastroenterology And Nutrition, 64: 966-970 (2017) IF: 2.799

Objectives: The aim of the study was to assess the effect of medically graded enteral honey supplementation on the intestinal microbiota, immune response, and somatic growth of preterm infants. **Methods:** Aprospective randomized controlled trial was conducted on preterm infants with gestational age 34 weeks and postnatal age >3 days. After reaching 1/2 goal enteral feeds, medically graded bee honey was added to milk at a dose of 5, 10, 15, and 0 g/day for 2 weeks in groups A, B, C, and D, respectively. Anthropometric measurements, CD4 and CD8 cytokines, stoolcultures, and stool polymerase chain reaction assays for molecular detection of microbiomes were performed at 0, 7, and 14 days of intervention. Analysis of variance test was used to detect differences among the 4 groups. **Results:** A total of 40 subjects were enrolled; 10 in each arm of the study. Compared with group D, all 3 intervention groups demonstrated significant increase in weight (P<0.0001). Head circumference increased in groups B and C (P¼0.0056). There were no changes in CD4 or CD8 cytokines (P¼0.24 and P¼0.11, respectively). Enterobacter stool colonization decreased in groups A and B (P¼0.002), whereas Bifidobacterium bifidum colony counts increased in groups A, B, andC(P¼0.002) and lactobacilli colony counts increased in groupB (P<0.0001). Applying real-time polymerase chain reaction, B bifidum and lactobacilli increased in group C (P<0.0001). **Conclusions:** Supplementation of milk formula with medically gradedhoney was associated with changes in physical growth and colonic microbiota of preterm infants. Further studies are needed to examine the sustainability of these effects and associated long-term outcomes.
Keywords: Bifidobacterium Bifidum; Lactobacilli; Microbiota; Neonates; Premature.

285. Limitations of Serum Ferritin to Predict Liver Iron Concentration Responses to Deferasirox Therapy in Patients with Transfusion-Dependent Thalassaemia

John B. Porter, Mohsen Elalfy, Ali Taher, Yesim Aydinok, Szu-Hee Lee, Pranee Sutcharitchan, Ali El-Ali, Jackie Han and Amal El-Beshlawy

European Journal Of Haematology, 98: 280-288 (2017) IF: 2.653

Background : In transfusion-dependent anaemias, while absolute serum ferritin levels broadly correlate with liver iron concentration (LIC), relationships between trends in these variables are unclear. These relationships are important because serum ferritin changes are often used to adjust or switch chelation regimens when liver magnetic resonance imaging (MRI) is unavailable.**Objectives and methods :** This post hoc analysis of the EPIC study compared serum ferritin and LIC in 317 patients with transfusion-dependent thalassaemia before and after 1 yr of deferasirox.Results : Serum ferritin responses (decreases) occurred in 73% of patients, 80% of whom also have decreased LIC. However, 52% of patients without a serum ferritin response did decrease LIC and by >1 mg Fe/g dw (median 3.9) in 77% of cases. Absolute serum ferritin and LIC values correlated significantly only when serum ferritin was <4000 ng/mL (r = 0.59; P < 0.0001) and not at higher levels (≥4000 ng/mL; r = 0.19). Serum ferritin response was accompanied by decreased LIC in 89% and 70% of cases when serum ferritin was <4000 or ≥4000 ng/mL, respectively.**Conclusions :** As serum ferritin non−response was associated with LIC decrease in over half of patients, use of liver MRI may be particularly useful for differentiating true from apparent non-responders to deferasirox based on serum ferritin trends alone.
Keywords: Serum Ferritin;Liver Iron Concentration;Deferasirox;Thalassaemia;Chelation.

286. Endemic Bladder Calculi In Children

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Pediatric Nephrology, 32: 11489-1499 (2017) IF: 2.516

Urinary calculi are being recognized more frequently in children and the urinary bladder is the most common site for stone formation in the lower urinary tract. Bladder calculi are grouped into three basic categories: primary idiopathic/endemic, secondary, and migrant. The incidence of vesical calculi has declined significantly in the last 70 years in developed nations owing to improvements in nutrition and socioeconomic

conditions, but it is still high in developing nations. Primary idiopathic/endemic bladder calculi typically occur in children, in the absence of urinary tract infection (UTI), urinary stasis, or foreign body, and diet lacking in animal proteins is the major contributor factor. Comprehensive preventive and treatment strategies are critical for improving the quality of life of diseased children, in addition to helping to eradicate, or at least decrease, the incidence of endemic bladder calculi in developing nations.
Keywords: Bladder Calculi;Malnutrition;Endemic Stone Belt;Dehydration.

287. Long-Term Safety And Efficacy of Deferasirox in Young Pediatric Patients with Transfusional Hemosiderosis: Results from A 5-Year Observational Study (Entrust)

Amal Mohamed Ibrahim El Beshlawy

Pediatric Blood & Cancer, (2017) IF: 2.513

BackgroundChildren with red blood cell disorders may receive regular transfusions from an early age and consequently accumulate iron. Adequate iron chelation therapy can prevent organ damage and delayed growth/development. Deferasirox is indicated for treatment of pediatric patients with chronic iron overload due to transfusional hemosiderosis; however, fewer than 10% of patients in the registration studies were aged 2 to less than 6 years.ProcedureDeferasirox, a once-daily oral iron chelator, was evaluated in young pediatric patients with transfusional hemosiderosis during the observational 5-year ENTRUST study. Patients aged 2 to less than 6 years at enrollment received deferasirox according to local prescribing information, with the primary objective of evaluating safety, specifically renal and hepatic function. Serum ferritin was observed as a surrogate efficacy parameter.**Results**In total, 267 patients (mean age 3.2 years) predominantly with ?-thalassemia (n = 176, 65.9%) were enrolled. Mean ± standard deviation deferasirox dose was 25.8 ± 6.5 mg/kg per day over a median of 59.9 months. A total of 145 patients (54.3%) completed 5 years' treatment. The proportion of patients with two or more consecutive postbaseline measurements (?7 days apart) of serum creatinine higher than age-adjusted upper limit of normal (ULN) and alanine aminotransferase more than five times the ULN was 4.4% (95% confidence interval [CI]: 2.1–7.9) and 4.0% (95% CI: 1.8–7.4), respectively. Median serum ferritin decreased from 1,702 ng/ml at baseline to 1,127 ng/ml at 5 years. There were no new safety signals.ConclusionsSafety and efficacy of deferasirox in young pediatric patients in this long-term, observational study in everyday clinical practice were consistent with the known deferasirox profile.
Keywords: Deferasirox, Hemosiderosis, Iron Chelation, Iron Overload, Pediatric, Real World

288. Lipoid Proteinosis: A Clinical and Molecular Study In Egyptian Patients

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Gene, 628: 308-314 (2017) IF: 2.415

Lipoid proteinosis (LP) is an autosomal recessive disorder caused by the loss of function of ECM1 gene. Clinical features include varying degrees of skin thickening, hoarseness of voice and less frequently neuropsychiatric abnormalities. Twelve patients from ten unrelated families with a clinical diagnosis of lipoid proteinosis were enrolled in this study. Extraction of DNA samples of the 12 patients and their parents from peripheral blood by standard methods was performed. Polymerase chain reaction (PCR) amplification of the ECM1 gene was conducted using eight pairs of primers spanning over the 10 exons and splice junctions. Patients exhibited a variety of clinical manifestations with skin affection and hoarseness of voice being the consistent feature. We identified five novel homozygous insertion, small deletion, missense, and splice site mutations as well as two homozygous previously published splice site mutation c.70+1G > C in intron 1 andc.1305-2A > G in intron 8. The specific mutations were: c.10_11insC in exon 1, c.690_691delAG in exon 6, c.734G > A in exon 7, c.1286_1287delAA in exon 8 and c.1393-1G > T in intron 9. The novel mutations c.1393-1G > T and c.10_11insC occurred in three (30%) and two (20%) unrelated patients of the studied families, respectively. Further studies may designate an increased frequency of these mutations among Egyptian LP patients. Identification of pathogenic ECM1 mutations is important for accurate diagnosis and proper genetic counseling.
Keywords: Lipoid Proteinosis Ecm1 Gene Novel Mutations Clinical Variability.

289. Comparison Between Bilistick System and Transcutaneous Bilirubin in Assessing Total Bilirubin Serum Concentration in Jaundiced Newborns

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Journal Of Perinatology, 37: 1028-1031 (2017) IF: 2.313

Objective: To compare the performance and accuracy of the JM-103 transcutaneous bilirubinometer and Bilistick System in measuring total serum bilirubin for the early identification of neonatal hyperbilirubinemia. **Study Design:**The study was performed on 126 consecutive term and near-term (⩾36 weeks' gestational age) jaundiced newborns in Cairo University Children Hospital NICU, Egypt. Total serum bilirubin was assayed concurrently by the clinical laboratory and Bilistick System and estimated using the JM-103 transcutaneous bilirubin instrument. Bland–Altman analysis was used to evaluate the agreement between determinations. **Result:** The limits of agreement of the Bilistick System (−5.8 to 3.3mg dl−1) and JM-103 system (−5.4 to 6.0mgdl−1) versus the clinical laboratory results were similar. **Conclusion:**The Bilistick System is an accurate alternative to transcutaneous (TcB) determination for early diagnosis and proper management of the neonatal jaundice.
Keywords: Bilirubin;Bilistick;Neonatal Jaundice.

290.Extended Clinical Features Associated with Novel Glis3 Mutation: A Case Report.

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Bmc Endocrine Disorders, 17 (2017) IF: 2.275

Background: Mutations in the GLI-similar 3 (GLIS3) gene encoding the transcription factor GLIS3 are a rare cause of neonatal diabetes and congenital hypothyroidism with 12 reported patients to date. Additional features, previously described, include congenital glaucoma, hepatic fibrosis, polycystic kidneys, developmental delay, facial dysmorphism, osteopenia, sensorineural deafness, choanal atresia, craniosynostosis and pancreatic exocrine insufficiency.CASE **Presentation:**We report a new case for consanguineous parents with homozygous novel mutation in GLIS3 gene who presented with neonatal diabetes mellitus, severe resistant congenital hypothyroidism, cholestatic liver disease, bilateral congenital glaucoma and facial dysmorphism. There were associated abnormalities in the external genitalia in form of bifid scrotum, bilateral undescended testicles, microphallus and scrotal hypospadias which might be a coincidental finding.**Conclusions:** We suggest that infants with neonatal diabetes associated with dysmorphism should be screened for GLIS3 gene mutations.

Keywords: Abnormal Genitalia;Clinical Features;Glis3 Mutation;Saudi.

291. Coenzyme Q10 and Pro-Inflammatory Markers in Children with Down Syndrome: Clinical and Biochemical Aspects

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Jornal De Pediatria, 93: 100-104 (2017) IF: 2.081

Objective : Evidence of oxidative stress was reported in individuals with Down syndrome. There is a growing interest in the contribution of the immune system in Down syndrome. The aim of this study is to evaluate the coenzyme Q10 and selected pro-inflammatory markers such as interleukin 6 and tumor necrosis factor α in children with Down syndrome. Methods : Eighty-six children (5–8 years of age) were enrolled in this case-control study from two public institutions. At the time of sampling, the patients and controls suffered from no acute or chronic illnesses and received no therapies or supplements. The levels of interleukin 6, tumor necrosis factor α, coenzyme Q10, fasting blood glucose, and intelligence quotient were measured. **Results :** Forty-three young Down syndrome children and forty-three controls were included over a period of eight months (January–August 2014). Compared with the control group, the Down syndrome patients showed significant increase in interleukin 6 and tumor necrosis factor α ($p = 0.002$), while coenzyme Q10 was significantly decreased ($p = 0.002$). Also, body mass index and fasting blood glucose were significantly increased in patients. There was a significantly positive correlation between coenzyme Q10 and intelligence quotient levels, as well as between interleukin 6 and tumor necrosis factor α. **Conclusion:** Interleukin 6 and tumor necrosis factor α levels in young children with Down syndrome may be used as biomarkers reflecting the neurodegenerative process in them. Coenzyme Q10 might have a role as a good supplement in young children with Down syndrome to ameliorate the neurological symptoms.

Keywords: Coenzyme Q10;Down Syndrome Children;Interleukin 6;Oxidative Stress;Tumor Necrosis Factor A.

292. Premature Atherosclerosis in Children with Beta-Thalassemia Major: New Diagnostic Marker

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Bmc Pediatrics, 17(1) (2017) IF: 2.071

Background: Early vascular alteration, atherosclerosis and coronary artery disease have emerged as important cardiovascular complications among beta-thalassemia major (B-TM) patients. The aims of the current study were to assess the prevalence of premature atherosclerosis among our B-TM patients, and to investigate the diagnostic value of serum Osteoprotegerin assay as an early biomarker for atherosclerosis.**Methods:**This cross-sectional study was conducted at Hematology unit - Pediatric Department, Zagazig University Children Hospital- Egypt in the period from March 2014 to March 2015. A total of 115 children were enrolled in the current study; as sixty-five (65) children with beta thalassemia major aged 5-18 years, on regular blood transfusion regimen represented the patient group. While fifty (50) healthy children, with comparable age and gender, were assigned as control group. All participants were subjected to history taking, thorough clinical examination and laboratory investigations including; complete blood count, liver and kidney function tests, C- reactive protein, lipid profile, serum ferritin and serum Osteoprotegerin (OPG) assay. Also, carotid artery intima media thickness (CAIMT) was performed by duplex ultrasound for patients and controls.**Results:**Our B-TM patients were transfusion-dependent for as long as 8.5 ± 3.8 years with significantly higher serum ferritin levels (2490 ± 1579 ng/dl vs 83 ± 32 ng/dl, $p = 0.001$), C-reactive protein (5.7 ± 5.7 vs 0.9 ± 0.9), liver enzymes and bilirubin when compared to controls. Significantly higher serum triglyceride (128 ± 20 vs 101 ± 7 mg/dL, $p = 0.009$) and atherogenic index of plasma (0.45 ± 0.12 vs 0.22 ± 0.04, $p = 0.001$) were recorded in patients than comparisons. On the contrary, total serum cholesterol (116 ± 16 vs 143 ± 5, $p < 0.001$), low density lipoprotein-cholesterol (LDL-C) (44 ± 9 vs 73 ± 6, $p < 0.001$) and high density lipoprotein cholesterol (HDL-C) (39 ± 2 vs 61 ± 5, $p < 0.001$), were significantly lowered in patients versus normal peers. Carotid arteries intima media thickness (CAIMT) of both side were significantly increased for patients (Rt 0.62 ± 0.2 vs. 0.29 ± 0.07 mm, $p = 0.001$ & Lt 0.66 ± 0.17 vs 0.29 ± 0.05 mm, $p = 0.001$) when compared with healthy controls, and showed positive correlation with, serum triglyceride, atherogenic index of plasma, and serum Osteoprotegerin levels. ELISA assay of serum Osteoprotegerin (OPG) revealed significantly higher levels for thalassemia patients than matched healthy controls (427 ± 102 vs. 324 ± 126 pg/ml, $p = 0.02$). Of particular interest is the obvious positive correlation between OPG levels and CAIMT of both sides (Rt r 0.54, $p = 0.001$ &Lt r 0.479, $p = 0.001$) and also with serum triglycerides (r 0.374, $p = 0.03$).**Conclusions:** Subclinical atherosclerosis started prematurely in children with beta-thalassemia. Carotid artery intima media thickness represented a simple, accurate and non-invasivemodality for early detection ofatherosclerosis. It was correlated well with serum

Osteoprotegerin; this finding highlighted the possible validity of OPG assay as an early predictor of atherosclerosis in thalassemia children.
Keywords: Beta-Thalassemia;Carotid Artery Intima Media Thickness;Osteoprotegerin;Premature Atherosclerosis

293. Serum Adipokines and Vitamin D Levels in Patients with Type 1 Diabetes Mellitus.

Mohamed M. Ismail, Tamer A. Abdel Hamid and Huda Marzouk

Archives Of Medical Science, 13: 738-744 (2017) IF: 1.969

Introduction: Adiponectin, leptin and resistin are adipokines that play important roles in the regulation of lipid and carbohydrate metabolism in type 2 diabetes (T2DM). However, their influence in type 1 diabetes mellitus is still unknown. The aim of this study was to measure serum adiponectin, leptin and resistin levels and to investigate their relationships with vitamin D and other clinical and laboratory parameters in patients with type 1 diabetes.**Material and Methods:**Fifty subjects with type 1 diabetes and 50 healthy age- and sex-matched subjects were selected from the Endocrinology Outpatient Clinic of Cairo University Pediatrics Hospital. Enzyme-linked immunosorbent assay was used to measure the levels of leptin, adiponectin and resistin. Vitamin D levels were measured using electro-chemiluminescence immunoassay. **Results:** There were no significant differences in adiponectin and leptin levels between diabetic and control subjects ($p = 0.6$ and $p = 0.5$ respectively). Resistin levels were significantly higher in the diabetic group compared to controls ($p < 0.001$) and in postpubertal patients compared to prepubertal patients ($p < 0.04$). Serum resistin in type 1 diabetes showed a negative correlation with vitamin D ($p < 0.001$) and a positive correlation with glycated hemoglobin (HbA1c) ($p = 0.006$), while other adipokines were not interrelated.**Conclusions:**These results strongly support a role of resistin and vitamin D deficiency in the pathophysiology of type 1 diabetes. Vitamin D may be involved in resistin regulation through an unknown mechanism. Further studies are recommended to understand resistin regulation in type 1 diabetes.
Keywords: Adiponectin;Leptin;Resistin;Type 1 Diabetes Mellitus;Vitamin D.

294. The Ethical Framework for Performing Research with Rare inherited Neurometabolic Disease Patients

Lamis Awad Mahmoud Ragab, *et all*

European Journal of Pediatrics, 176 (3): 395-405 (2017) IF: 1.921

The need for performing clinical trials to develop well-studied and appropriate medicines for inherited neurometabolic disease patients faces ethical concerns mainly raising from four aspects: the diseases are rare; include young and very young patients; the neurological impairment may compromise the capability to provide 'consent'; and the genetic nature of the disease leads to further ethical implications. This work is intended to identify the ethical provisions applicable to clinical research involving these patients and to evaluate if these cover the ethical issues. Three searches have been performed on the European regulatory/legal framework, the literature and European Union-funded projects. The European legal framework offers a number of ethical provisions ruling the clinical research on paediatric, rare, inherited diseases with neurological symptoms. In the literature, relevant publications deal with informed consent, newborn genetic screenings, gene therapy and rights/interests of research participants. Additional information raised from European projects on sharing patients' data from different countries, the need to fill the gap of the regulatory framework and to improve information to stakeholders and patients/families.Conclusion: Several recommendations and guidelines on ethical aspects are applicable to the inherited neurometabolic disease research in Europe, even though they suffer from the lack of a common ethical approach.
Keywords: Paediatric Rare Genetic Disease Clinical Research Ethics.

295.Genetic Counseling in Primary Immunodeficiency Disorders: an Emerging Experience in Egypt

Rabab E. El Hawary, Safa S. Meshaal, Dalia S. Abd Elaziz, Marwa A. Elsharkawy, Radwa S. Alkady, Sohilla Lotfy,Ahmad El-Sheikhah, Amr Hassan, Nermeen M. Galal, Jeannette A. Boutros and Aisha M. Elmarsafy

Molecular Diagnosis & Therapy, 21: 677-684 (2017) IF: 1.909

Background Primary immunodeficiency disorders (PIDs) are a heterogeneous group of diseases of the immune system leading to life-threatening infections, and, unless urgently treated with immune reconstitution, patients do not usually survive. With the continuing progress in molecular diagnosis, many mutations have been described in more than 300 genes. Genetic counseling has recently been considered an essential part of the management of PIDs. This study presents the experience of genetic counseling services in the largest PID center in Egypt, and reports on our management plan and the impact of prenatal diagnosis (PND) on families. **Methods** Based on the biochemical and molecular diagnosis of index cases, PND was offered for 10 families in 12 subsequent pregnancies. Five different genes were sequenced by Sanger sequencing in fetal samples. **Results** Seven fetuses were either normal or were carriers, while five fetuses were affected and human leukocyteantigen typing was performed, seeking a suitably related donor for stem cell transplantation.Conclusion In spite of the genetic heterogeneity behind PIDs, genetic counseling should play a critical role in the management and future decisions of affected families
Keywords: Genetic Counseling Sessions;Primary Immunodeficiency;Disorders (Pids).

296. Telomerase Enzyme Activity in Egyptian Children with Bone Marrow Failure and Response to Immunosuppressive Therapy

Amal El Beshlawy, FadwaSaid , MervatElAnsary, MonaHamdy, Khalid Abdel-Azim, Abdel-Rahman A. Abdel-Razek, Nelly Abulata and Amina Abdel-Salam

Blood Cells, Molecules and Diseases, 63: 56-61 (2017) IF: 1.882

The most common cause of bone marrow failure is acquired aplastic anemia (AAA). The inherited bone marrow failure

syndromes include Fanconi anemia, dyskeratosis congenita, Diamond-Blackfan anemia, and other genetic disorders. Fanconi's anemia and dyskeratosis congenita are the most common types of constitutional aplastic anemia [1]. Patients with constitutional aplastic anemia were found to have strikingly short telomeres and low telomerase activity in their cells [2]. Telomeres are structural elements that seal the ends of chromosomes, protecting them from recombination, end-to-end fusion, and recognition as damaged DNA. Telomere erosion has been associated with the process of normal aging and defective telomere maintenance is a feature of a variety of human diseases including constitutional aplastic anemia [3,4]. Maintenance of the integrity of telomeres requires the telomerase ribonucleoprotein complex [5–8]. Most of the acquired aplastic anemia (AAA) is the result of an immune process that destroys hematopoietic stem and progenitor cells [9,10]. It was assumed that the predisposition to the development of acquired marrow failure appears to be conferred by genetic alterations resulting in low telomerase activity, short telomeres in leukocytes, and reduced hematopoietic function [11,12]. Several studies reported short telomeres and low telomerase activity in leukocytes in up to one third of patients with AAA, especially those who were resistant to immunosuppressive therapy [12–15]. Most of the previous studies were concerned mainly with the detection of telomere length and the mutant genes causing low telomerase activity rather than telomerase activity [12–15]. In this study we aimed primarily to evaluate the telomerase functional activity in Egyptian children with inherited bone marrow failure (IBMF) and acquired bone marrow failure namely acquired severe aplastic anemia (AAA). The relation of the acquired disease to telomerase enzyme activity and response to immunosuppressive therapy were also studied.

Keywords: Telomerase Enzyme;Egyptian Children;Bone Marrow Failure;Immunosuppressive Therapy.

297. Global Application of the Assessment of Communication Skills of Paediatric Endocrinology Fellows in the Management of Differences in Sex Development Using the Espe E-Learning.Org Portal

Shereen Abdelghaffar, *et all*

Hormone Research In Paediatrics, 88(2): 127-139 (2017) IF: 1.844

Background: Information sharing in chronic conditions such as disorders of/differences in sex development (DSD) is essential for a comprehensive understanding by parents andpatients. We report on a qualitative analysis of communication skills of fellows undergoing training in paediatric endocrinology.Guidelines are created for the assessment of communicationbetween health professionals and individuals with DSD and their parents. **Methods:** Paediatric endocrinolThe following authors are members of ESPE and/or PES: Martine Cools, Shereen Abdelghaffar, Antonio Balsamo, Raja Brauner, Jean Pierre Chanoine, Asma Deeb, Patricia Fechner, Alina German, Paul Martin Holterhus, Anders Juul, Anna Nordenstrom, Wilma Oostdijk,Rodolfo A. Rey, Meilan M. Rutter, and Stenvert L.S. Drop.Downloaded by:Erasmus Univ.of Rotterdam Medical Library 154.59.124.38 - 10/4/2017 11:02:47 AM

Keywords: Online Learning;E-Learning;Subspecialty Training;Disorders Of Sex Development;Congenital Adrenal Hyperplasia;Competency Assessment.

298. Identification of Insulin Gene Variants in Neonatal Diabetes

Nadida A. Gohar, Walaa A. Rabie, Sahar A. Sharaf, Marwa M. Elsharkawy, Marwa F. Mira, Aisha O. Tolba and Hany Aly

Journal Of Maternal-Fetal & Neonatal Medicine, 30(9): 1035-1040 (2017) IF: 1.826

Objectives: Permanent neonatal diabetes (PNDM) is caused by mutations in the genes responsible for the synthesis of different proteins that are important for the normal behavior ofbeta cells in the pancreas. Mutations in the insulin gene (INS) are considered as one of the causes of diabetes in neonates. This study aimed to investigate the genetic variations in the INS gene in a group of Egyptian infants diagnosed with PNDM. **Methods:** We screened exons 2 and 3 with intronic boundaries of the INS gene by direct gene sequencing in 30 PNDM patients and 20 healthy controls. A detailed clinical phenotyping of the patients was carried out to specify the diabetes features in those found to carry an INS variant. **Results:** We identified five variants (four SNPs and one synonymous variant), c(0).187 + 11T4C, c.-17-6T4A, c.*22A4C, c.*9C4T, and c.36G4A (p.A12A), with allelic frequencies of 96.7%, 80%, 75%, 5%, and 1.7%, respectively. All showed no statistically significance difference compared with the controls, with the exception of c.*22A4C.**Conclusion:** Genetic screening for the INS gene did not reveal an evident role in the diagnosis of PNDM.

Keywords: Dna Sequencing;Insulin (Ins) Gene;Mutations;Permanent Neonatal Diabetes (Pnd).

299. Late Presentation of Necrotizing Enterocolitis Associated with Rotavirus Infection in A Term Infant with Hyperinsulinism on Octreotide Therapy: A Case Report.

Abdulaziz A. Alsaedi,Ayman A. Bakkar, Naglaa M. Kamal and Jwaher M. Althobiti

Medicine, 96(40) (2017) IF: 1.804

Rationale: Congenital hyperinsulinism (CHI) is the most common cause of persistent hypoglycemia in infancy that can cause permanent brain damage. Consequently, optimal management is extremely important. Current pharmacologic and surgical treatment were available that included diazoxide and octreotides.**Patient Concerns:**A 4 month old Saudi male patient diagnosed at our hospital as CHI, treated with near total pancreatectomy and octreotide therapy of 30mcg/kg/day presented with severe abdominal distension, vomiting and bloody diarrhea.**Diagnoses:**The patient was diagnosed as necrotising enterocolitis (NEC) associated with Rota virus infection which played together with octeriotides as risk factors for NEC.**Interventions:**Radiological investigations and multidisciplinary team management with endocrinologist, neonatologist, pediatric surgeon, and gastroenterologist.**Outcomes:**Resolution of NEC with conservative medical management and was discharged after 1 month of hospital stay with follow up with all concerned sub specialties.**Lessons:**NEC can develop in patients treated with octreotides especially when associated with another risk factor such as rotavirus infection.

Keywords: Abcc8; Hyperinsulinism; Hypoglycemia; Necrotizing Enterocolitis; Octreotide; Rotavirus; Usher Syndrome.

300. Idiopathic Hypoparathyroidism with Extensive Intracranial Calcification in Children: First Report from Saudi Arabia

Kamal NM, Alghamdi HA, Halabi AA, Bakkar AA, Algarni A, Alharbi A, Alharthi AA, Alharbi RA and Sherief LM

Medicine, 96(16): (2017) IF: 1.804

Rationale: Pediatric idiopathic hypoparathyroidism with extensive intracranial calcifications outside the basal ganglia (BG) is extremely rare with less than 10 cases worldwide.**Patient Concerns:**An 11-year-old Saudi male child presented with tetany with otherwise normal neurological and other body system examination diagnoses severe hypocalcemia for differential diagnosis.**Interventions:**Further investigations revealed hyperphosphatemia and un tomography revealed BG and extensive brain calcifications. He has no dysmorphic features, vitiligo, mucocuataneous manifestations, or hair loss. He had normal hemoglobin, electroencephalogram, and skeletal survey, with ha and omega interferons and negative genetic testing for Glial Cell Missing 2 (GCM2) and calcium-sensing receptors (CaSRs) excluding known causes of hypoparathyroidism.**Outcomes:**This case presents a rare entity of idiopathic hypoparathyroidism with extensive intracranial calcification, not only in BG but also outside the extrapyramidal system with normal mentality, development, pubertal achievement, and neurological examination. To our knowledge, this is the first report from Saudi Arabia in pediatrics.LESSONS: Idiopathic hypoparathyroidism is a diagnosis of exclusion after ruling out all known causes of hypoparathyroidism. It is associated with BG calcifications, but extensive intracranial calcifications outside the BG are extremely rare.
Keywords: Basal Ganglia Calcification;Extensive Brain Calcifications;Hypocalcemia;Idiopathic Hypoparathyroidism.

301. Alström Syndrome: A Novel Mutation in Saudi Girl with Insulin-Resistant Diabetes.

Ayman A. Bakar, Naglaa Mohamed Kamal, Abdulaziz Alsaedi, Reem Turkistani and Dima Aldosari

Medicine, 96(10) (2017) IF: 1.804

Rationale: Alström syndrome is an autosomal recessive disorder characterized by hearing loss, blindness, obesity, non-insulin dependent diabetes, and others.**Patient Concern:**A 10 years old Saudi girl, who presented with diabetic ketoacidosis and found to have hearing loss and blindness.DIAGNOSIS:Alström syndrome.**Interventions:**Multidisciplinary team approach, with echocardiography, hearing test, eye exam and genetic test for Alström syndrome. **Outcomes:**The patient has retinitis pigmentosa, bilateral hearing loss, double diabetes with weakly positive anti-insulin antibodies and DNA analysis showed novel mutation for Alström syndrome.**Lessons:**the combination of obesity, diabetes, hearing loss and blindness should alert the physician to test for Alström syndrome.
Keywords: Alms1;Alström Syndrome;Double Diabetes;Insulin-Resistant Diabetes;Saudi.

302. A Multicenter, Open-Label, Phase Iii Study of Abcertin in Gaucher Disease

Amal Mohamed Ibrahim El Beshlawy

Medicine, (2017) IF: 1.804

Background: Gaucher disease (GD) is caused by a deficiency in the lysosomal enzyme glucocerebrosidase. Enzyme replacementtherapy (ERT) is recommended for clinical improvement.**Methods:** The efficacy and safety of a new imiglucerase, Abcertin, were assessed in 7 Egyptian patients with treatment-naïve type 1GD. Each patient was administered a biweekly 60 U/kg dose of Abcertin for 6 months. The primary endpoint was the change inhemoglobin concentration. The secondary endpoints were changes from baseline in platelet counts, spleen and liver volumes,biomarker levels, skeletal parameters, and bone mineral density.**Results:**The hemoglobin concentration increased by a mean of 1.96±0.91 g/dL (range 1.11–2.80 g/dL) or 20.6% (P=.001).Statistically significant increases in the platelet count and decreases in the spleen volume and biomarker levels were also observed.There were no severe drug-related adverse events. One patient developed anti-imiglucerase antibodies without neutralizing activity.**Conclusion:**Our study results demonstrate the efficacy and safety of Abcertin in patients with type 1 GD. This suggests thatAbcertin can be an alternative ERT option for type 1 GD.
Keywords: Enzyme Replacement Therapy, Gaucher Disease, Imiglucerase

303. Cross-Sectional Evaluation of the Bronchitis Severity Score in Egyptian Children: A Move to Reduce Antibiotics

Moawad EM1, Haron MA, Maher RM, Abdallah EA, Hussein H, Badawy NM and El-Rheem ME.

Samj South African Medical Journal, 107(4): 342-345 (2017) IF: 1.731

Background: Despite evidence of limited benefit of antibiotics in acute bronchitis, most paediatric patients are prescribed them. **Objectives:** To assess the validity of the Bronchitis Severity Score (BSS) in assessing the clinical response to treatment of acute bronchitis, and determine whether clinical data and basic laboratory measurements can be used to guide antibiotic prescription. **Methods:** We enrolled 200 patients (age range 6 months - 12 years) with clinically diagnosed acute bronchitis. They were divided into three groups according to age. All patients were evaluated three times during the bronchitis episode (days 0, 5 and 7). The primary outcome measurement was the change in the BSS from day 0 to day 7. **Results:** On the initial visit, the mean (standard deviation (SD)) BSS was 8.36 (2.6), indicating moderate severity of bronchitis. The mean BSS decreased to 4.03 (2.3) on day 5 and to 2.36 (1.45) on day 7. Initial blood tests showed anaemia (80%), leucocytosis (6%), bandaemia (3%) and lymphocytosis (52%). Only four patients were positive for C-reactive protein, while the erythrocyte sedimentation rate was elevated in 98% of cases. There were significant correlations between bandaemia, fever grade (p<0.001) and white blood cell count with clinical variables such as the presence of secretions on chest auscultation (p<0.05) and toxic facies on general examination (p<0.05). **Conclusions:** Acute bronchitis

in children is a self-limiting disease that does not require routine administration of antibiotics. The BSS is a simple and practical clinical scoring system that is useful in evaluating disease severity and monitoring disease resolution in acute bronchitis

Keywords: Acute Bronchitis;Children;Diagnosis;Antibiotics;Bronchitis Severity Score;Bss.

304. Perimembranous Ventricular Septal Defect Device Closure: Choosing Between Amplatzer Duct Occluder I and Ii

Amal Mahmoud Abdel Rahman El- Sisi

Pediatric Cardiology, 38: 596-602 (2017) IF: 1.688

Transcatheter closure of perimembranous ventricular septal defects (pmVSDs) is a well-established procedure. Recently, Amplatzer duct occluders (ADO) I and II have been reported to close large series of pmVSDs successfully (off-label use). ADOs are economical compared with the standard Amplatzer VSD occluders, a major consideration in developing countries with low-budget programs. We report closure of symptomatic, hemodynamically significant pmVSDs using the ADOI and ADOII devices. Although there are no set criteria for choosing between ADOI and ADOII, the former's price tag includes snare and long sheath. Thus, we aim to predetermine device usage based on transthoracic echocardiography (TTE) findings. Between March 2013 and November 2014, 30 patients had transcatheter closure of pmVSDs using the ADO devices. The median age was 4 years (range 1.1–13 years) and median weight was 15 kg (range 6.5–85 kg). ADOII could not be used in VSDs larger than 6 mm and/or with a large aneurysm. The median VSD size as assessed by echocardiography was 5.5 mm while the mean was 5.5 mm (range 3–12 mm); while by angiography it was 5 mm & the mean was 4.75 mm (range 3–9 mm). The median fluoroscopy time (FT) was 8 min (range 5–38 min). We inserted ADOI in 13 patients and ADOII in 17 patients (no significant difference between median age and weight in each group). VSD size was significantly larger and FT was longer in ADOI patients; the device type matched what was decided from TTE data in 84% of cases. Follow-up ranged from 2 to 24 months (median 12 months). The mean LVEDD z-score of the patients was 1.1 before VSD closure, while it was 0.63, 0.35, and 0.23 at the 1-, 3 months, and last follow-up, respectively. Complete closure rates immediately, at 24 h, and at last follow-up were 87, 90, and 94% respectively. No patient developed heart block or any other complication. ADOI and ADOII are equally safe and effective in pmVSD closure. ADOII use, although cheaper than ADOI, is limited to smaller VSDs. The choice between ADOI and ADOII can be decided by TTE prior to procedure which is convenient in low economic programs.

Keywords: Ventricular Septal Defect Ado1 Ado2 Device Closure.

305. Multicenter Off-Label Use of Nit-Occlud Coil in Retrograde Closure of Small Patent Ductus Arteriosus

Keyhan Sayadpour Zanjani, Rodina Sobhy, Rania El-Kaffas and Amal El-Sisi

Pediatric Cardiology, 38: 828-832 (2017) IF: 1.688

We studied the safety and efficacy of closing patent ductus arteriosus by Nit-Occlud coils via retrograde approach. This is a retrospective study of 46 attempts to close ducts by this method in two hospitals in Egypt and Iran. Ductus arteriosus was crossed by left or right Judkins or endhole catheters. The coil was delivered via the same catheter or the provided endhole catheter after exchange. The procedure was successful in 42 out of 46 attempts. Fluoroscopy and procedural times were significantly shorter when the catheter was not exchanged. This method is effective and safe for the closure of small ducts. Crossing the duct and delivering the coil by a left Judkins catheter is the easiest and fastest way to perform this method

Keywords: Patent Ductus Arteriosus ; Nit-Occlud Coil.

306. Forgotten Right Ventricle In Pediatric Dilated Cardiomyopathy.

Agha HM, Ibrahim H, El Satar IA, El Rahman NA, El Aziz DA, Salah Z, El Saeidi S, Mostafa F, Attia WEl Rahman and MA,El Mohsen GA.

Pediatric Cardiology, 38(4): 819-827 (2017) IF: 1.688

To evaluate the right ventricular (RV) function in relation to that of the left ventricle (LV) in patients with dilated cardiomyopathy (DCM). Echocardiographic examination was done using tissue Doppler imaging (TDI) and two-dimensional speckle tracking echocardiography (2D-STE) for 32 pediatric patients with DCM comparing them to another 32 normal matched controls. The global longitudinal strain (GLS) derived from 2D-STE was used to reflect the LV systolic function. Tricuspid annular plan systolic excursion (TAPSE) and the following RV TDI derived indexes: peak systolic velocity (S'), peak early diastolic velocity E', peak late diastolic velocity A', isovolumic acceleration (IVA) and myocardial performance index (MPI) were measured. RV had significant systolic and diastolic dysfunction; TAPSE, S' velocity, IVA, peak early diastolic velocity (E') and peak early diastolic velocity/peak late diastolic velocity (E'/A') ratio were significantly decreased while MPI was significantly prolonged compared to controls. Moreover, TAPSE, S', IVA, E', E'/A' and RV MPI were significantly correlated to LV GLS. For prediction of LV dysfunction among patients, the area under the receiver operating characteristic curve was 0.98 for RV MPI, 0.906 for RV IVA. For identifying severe LV dysfunction; RV MPI >0.29 had 100% sensitivity and 93.7% specificity, while the RV IVA ≤ 3 had 84.4% sensitivity and 90.6% specificity. In pediatric patients with DCM the RV systolic and diastolic functions are affected beside the LV dysfunction. Non-conventional echocardiographic evaluation of RV function is recommended in among this cohort.

Keywords: 2D-Speckle Tracking;Dilated Cardiomyopathy;Isovolumic Acceleration;Right Ventricle;Tissue Doppler Imaging.

307. Delayed Myocardial Enhancement in Pediatric Hypertrophic Cardiomyopathy: Correlation with Lv Function, Echocardiography, and Demographic Parameters

Sonia El Saiedi, Noha Hossam Behairy, Ahmed Kharabish, Reem Esmail, Zeinab Salah Seliem, Mervat Shafik and Wesam El Mozy

Pediatric Cardiology, 38: 1024-1031 (2017) IF: 1.688

Our aim was (1) to detect the presence of fibrosis by Cardiac magnetic resonance imaging (CMR) in the pediatric age group. (2) Correlate CMR findings with demographic data, LV function, and other echocardiographic parameters. We studied 40 pediatric patients diagnosed as HCM by echocardiography. All patients were subjected to clinical examination (in which the NYHAclassification was determined for each patient), echocardiography, and CMR. CMR was done on a 1.5T Philips Achieva scanner in SSFP with delayed myocardial enhancement (DE-MRI). All demographic and functional parameters as well as pressure gradient across left ventricularoutflow tract (LVOT) were co rrelated with the percentage of myocardial enhancement. We studied 13 female and 27 male patients from 45 days up to 18 years. The mean percentage of DE-MRI was 9.7 ± 9%. We found significant correlation between the NYHA classification and the pressure gradient across the LVOT (P =\0.001) as well as the percentage of DE-MRI(P = 0.004). The percentage of DE-MRI showed positive correlation with LV myocardial mass index (P = 0.042). It didn't correlate with any other demographic or LV functional cardiac parameters. A good positive correlation was detected between the percentage of DE-MRI and the severity of pressure gradient across LVOT measured by echocardiography (r = 0.69 and P =\0.001). We found asignificant correlation between the percentage of DE-MRI in children with HCM and the pressure gradient across LVOT, NYHA classification, and LV myocardial mass. This may help in the further management of those patients, planning for follow-up, and prognosis of the disease.

Keywords: Hypertrophic Cardiomyopathy;Lv Function;Delayed Enhancement;Cardiac Magnetic Resonance.

308. Reduction of Cd19 Autoimmunity Marker on B Cells of Paediatric Sle Patients Through Repressing Pu.1/Tnf-A/Baff Axis Pathway by Mir-155.

H.Marzouk and S.Salah

Growth Factors, 35: 49-60 (2017) IF: 1.644

MicroRNA-155 (miR-155) is implicated in regulating B-cell activation and survival that is important in systemic lupus erythematosus (SLE) pathogenesis. PU.1, a target for miR-155, is a crucial regulator of B-cell development and enhances Tumour-Necrosis-factor-alpha (TNF-α) expression. TNF-α induces the expression of B-cell-activating-factor (BAFF). BAFF is reported to increase the expression of the autoimmunity marker; CD19. This study aimed to investigate the regulation of expression of PU.1 in pediatric-systemic-lupus-erythematosus (pSLE) patients by miR-155, and hence evaluate its impact on TNF-α/BAFF/CD19 signalling pathway. Screening revealed that PU.1 is upregulated in PBMCs and B-cells of pSLE patients. PU.1 expression directly correlated with systemic-lupus-erythematosus disease-activity-index-2 K SLEDAI-2K. Ectopic expression of miR-155 and knockdown of PU.1 suppressed PU.1, TNF-α and BAFF. Finally, miR-155 decreased the proportion of BAFF-expressing-B-cells and CD19 protein expression. These findings suggest that miR-155 suppresses autoimmunity through transcriptional repression of PU.1 and TNF-α, which in turn suppresses BAFF and CD19 protein expression.

Keywords: B Cells;Baff;Pu.1;Tnf-A;Lupus;Microrna 155.

309. Detection of Minimal Residual Disease in Childhood B-Acute Lymphoblastic Leukemia by 4-Color Flowcytometry

Ahmad Baraka, Laila M. Sherief, Naglaa M. Kamal and Shereen El Shorbagy

International Journal Of Hematology, 105(6) (2017) IF: 1.61

Monitoring of minimal residual disease (MRD) is currently considered the most powerful predictor of outcome in acute lymphoblastic leukemia (ALL). Achievement of a negative MRD state assessed by multicolor flowcytometry (MFC) is an important predictor of disease-free survival (DFS) and overall survival (OS) in ALL patients. We sought to determine whether panels of antibodies combination are more suitable for detection of MRD in Childhood ALL. Eighty-four (84) patients with ALL (B-lineage subtype) were enrolled in this study. Normal template for B cell precursors was established in 15 control participants using 4-four panels of monoclonal Antibodies (Mo Abs),{CD22, CD45, CD58 and CD97 in combination with CD10, CD19, CD34}. At diagnosis, CD22 exhibited the lowest incidence of expression in only 50% of all patients, while CD45, CD58, and CD97 were expressed in 80.9, 59.5 and 92.8%, respectively. Analysis of MRD was performed for each Mo Abs combination at day 0 and day 14 post-induction of chemotherapy by 4-color (FCM). The incidence of MRD was 61.9, 70.6, 60.0 and 55.1% for CD22, CD45, CD58 and CD97, respectively. In B-ALL patients, (CD10/CD19/CD34/CD45) + (CD10/CD19/CD34/CD97) represented the highest incidence of expression of leukemic cells markers with a significant correlation with blasts count, suggesting that these are more specific for MRD detection. Also FCM is relatively cost effective for detection of MRD in ALL patients and its applicability in routine leukemia lab is valuable. MRD evaluation at the end of the induction therapy (i.e. day 35 or 42 according to the different schedules) is advised. Also, Ig/T cell receptor gene rearrangements and gene fusions analyzed by polymerase chain reaction (PCR) are preferred.

Keywords: 4-Color Flow Cytometry;B-Lineage Acute Lymphoblastic Leukemia;Minimal Residual Disease (Mrd).

310. Meeting Reports: Adolescence - A Transition to Adulthood Proceedings of the 24Th Aschauer Soiree, Held at Jurata, Poland, November 5Th 2016

Koziel Slawomir, Hermanussen Michael, Gomula Alexandra, Swanson James, Kaczmarek Maria, El-Shabrawi Mortada, Elhusseini Mona, Satake Takashi, Klarić Irena Martinović, Scheffler Christiane, Morkuniene Ruta, Godina Elena, Saša Missoni, Tutkuviene Janina, Siniarska Anna, Joanna Nieczuja-Dwojacka, Núñez Javier, Groth Detlef and Barbieri Davide

Pediatric Endocrinology Reviews Per, 10(3): 326-334 (2017) IF: 1.554

Eighteen scientists met at Jurata, Poland, to discuss various aspects of the transition from adolescence to adulthood. This transition is a delicate period facing complex interactions between the adolescents and the social group they belong to. Social identity, group identification and identity signalling, but also stress affecting basal salivary cortisol rhythms, hypertension, inappropriate nutrition causing latent and manifest obesity. Moreover, in developing and under-developed countries, parasitosis causing anaemia thereby impairing growth and development, are issues to be dealt with during this period of the human development. In addition, some new aspects of the association between weight, height and head circumference in the newborns were discussed, as well as intrauterine head growth and head circumference as health risk indicators.
Keywords: Strategic Growth Adjustment;Bmi;Growth Faltering;Secular Trend;Obesity;Growth Modelling.

311. Doppler Ultrasound Assessment of the Splanchnic Circulation in Preterms with Neonatal Sepsis At Risk for Necrotizing Enterocolitis

Rania H. Hashem, Yasmeen A. Mansi,Nehal S. Almasah and Shereen Abdelghaffar

Journal Of Ultrasound, 20(1): 59-67 (2017) IF: 1.547

Objective : To evaluate the role of Doppler ultrasonography in the assessment of splanchnic circulation's hemodynamic changes in septic preterms at risk of necrotizing enterocolitis.**Methods :** A total of 51 septic preterms were divided into two groups: 25 preterms with clinical signs of necrotizing enterocolitis (NEC) and 26 preterms with no clinical signs of NEC. Both groups were assessed with Doppler ultrasonography of the celiac and superior mesenteric arteries, and each septic preterm's peak systolic velocity (PSV), end-diastolic velocity (EDV), resistivity index (RI), and pulsatility index (PI) was calculated and recorded.**Results:** These included a statistically significant lower PSV (p: 0.001) and a lower EDV (p: 0.001) in the superior mesenteric artery in the septic group with clinical signs of NEC in comparison with the septic group with no clinical signs of NEC. A statistically significant ($p < 0.001$) higher PSV celiac (CA)/PSV superior mesenteric (SMA) ratio was found for the group of septic preterms with clinical signs of NEC when compared to the other group. **Conclusion :** The study results showed that Doppler ultrasonography of the splanchnic circulation can be a tool for the early identification of NEC cases among septic preterms.
Keywords: Doppler Ultrasonography Splanchnic Circulation Sepsis Preterms Nec.

312. Brain Volume and Doppler Velocimetry in Growth-Restricted, Small-for-Gestational-Age, and Appropriate-for-Gestational-Age Fetuses

Hala A. E.Wahab Abdel Latif, Hassan Mostafa Gaafar, Ghada Abdel Fattah Abdel Moety, Doaa Salah Eldin Mahmoud and Nihal Mohamed El Rifa

American Journal Of Perinatology, 34(4): 333-339 (2017) IF: 1.455

Objective This study aims to detect possible differences in fetal brain volumes between growth-restricted fetuses (FGR), small-for-gestational-age (SGA) fetuses with normal Doppler indices, and appropriate-for-gestational-age fetuses (AGA). Study Design Three-dimensional measurements of fetal brain volume and umbilical artery and middle cerebral artery (MCA) pulsatility index (PI) and resistance index (RI) were made in 80 AGA fetuses, 68 SGA fetuses with normal Doppler indices, and 68 FGR with brain-sparing effect between 32 and 36 weeks of gestation. **Results** MCA-PI and MCA-RI were significantly lower in FGR group compared with the other two groups ($p < 0.001$). Brain volume was significantly lower in SGA and FGR groups compared with AGA group ($p < 0.001$). **Conclusion** Brain volume is significantly lower in SGA and FGR groups compared with AGA group.
Keywords: Brain Volume;Doppler;Fetal Growth Restriction; Small-For; Gestational;Age Fetuses; Appropriate; For; Gestational-Age Fetuses.

313. Cognitive Function and Heat Shock Protein 70 in Children with Temporal Lobe Epilepsy

Oraby AM, Raouf ER, El-Saied MM, Abou-Khadra MK, Helal SI and Hashish AF

Journal Of Child Neurology, 32: 41-45 (2017) IF: 1.378

We conducted the present study to examine cognitive function and serum heat shock protein 70 levels among children with temporal lobe epilepsy. The Stanford-Binet Intelligence Test was carried out to examine cognitive function in 30 children with temporal lobe epilepsy and 30 controls. Serum heat shock protein 70 levels were determined with an enzyme-linked immunosorbent assay. The epilepsy group had significantly lower cognitive function testing scores and significantly higher serum heat shock protein 70 levels than the control group; there were significant negative correlations between serum heat shock protein 70 levels and short-term memory and composite scores. Children with uncontrolled seizures had significantly lower verbal reasoning scores and significantly higher serum heat shock protein 70 levels than children with controlled seizures. Children with temporal lobe epilepsy have cognitive dysfunction and elevated levels of serum heat shock protein 70, which may be considered a stress biomarker.
Keywords: Children;Cognitive Function;Heat Shock Protein 70; Stress Biomarker;Temporal Lobe Epilepsy.

314. Vitamin D Status in Egyptian Children with Type 1 Diabetes and the Role of Vitamin D Replacement in Glycemic Control

Mona Hafez, Mona Hassan, Noha Musa, Sahar Abdel Atty and Sally Abdel Azim

Journal Of Pediatric Endocrinology And Metabolism, 30 (4): 389-394 (2017) IF: 1.223

Background: The association of low serum 25 hydroxy cholecalciferol (25OHD) levels with high glucose level and diminished insulin sensitivity suggests that vitamin D (VD)may modulate insulin metabolism. The aim of the study was to screen for vitamin D deficiency (VDD) in pediatric patients with type 1 diabetes (T1D) and study the effect ofVD supplementation on their glycemic control and insulin requirements. **Methods:** A prospective cohort study including 50 patients with T1D. VD level was assessed initially and after3 months of VD

supplementation (in those with VDD).HbA1c and insulin requirements were studied at 0, 3 and 6 months of supplementation.**Results:** Fifty patients with T1D were included with mean diabetes duration of 4.11 ± 2.34 years. VD level ranged from 0.2 to 33 ng/mL. VD status correlated significantly with daily insulin dose ($p = 0.030$, $r = 0.306$) and HbA1c ($p < 0.001$, $r = 0.243$). Thirty-five patients (70%) had VDD and were allocated for VD supplementation for 3 months.The mean HbA1c improved significantly after supplementation ($p = 0.003$), followed by a significant deterioration at 6 months with no change in their insulin requirementsat 3 or 6 months.**Conclusions:** VD was highly prevalent in Egyptian T1D patients. VD supplementation improved glycemic control at 3 months after therapy with no reduction in insulin requirements.
Keywords: Glycemic Control;Type 1 Diabetes;25Ohd;Vitamin D Supplementation.

315. A Pilot Study Using Lactulose in Management of Minimal Hepatic Encephalopathy in Children with Extrahepatic Portal Vein Obstruction

El-Karaksy HM, Afifi O, Bakry A, Kader AA and Saber N.

World Journal Of Pediatrics, 13(1): 70-75 (2017) IF: 1.164

Background: Minimal hepatic encephalopathy (MHE) is not associated with overt neuropsychiatric symptoms but rather with subtle changes in psychometric and/ or neurophysiologic tests. We aimed to diagnose MHE in children with extrahepatic portal vein obstruction(EHPVO) and to evaluate the effect of lactulose on MHE. **Methods:** A prospective study was carried out on 30 patients with EHPVO (21 males; mean age 10±2.5 years). The study was carried out in the Pediatric Hepatology Unit, Cairo University Pediatric Hospital, Cairo, Egypt, between 2011 and 2013. All patients were subjected to clinical and laboratory assessment,neuropsychmetric testing using the arabic version of Wechsler intelligence tests, neurophysiological testing by visual electroencephalogram and P300 event relatedpotentials (ERP). **Results:** The prevalence of MHE among children with EHPVO was 20% (6/30). After randomization to treatment and no-treatment groups using lactulose, alltests were repeated after three months. Among four patients with MHE who received lactulose, three (75%) improved. On the other hand, one of the patients in the no-treatment group developed MHE. Only one patient in the treatment arm had to discontinue lactulose becauseof severe diarrhea. **Conclusions:** This pilot study revealed that the prevalence of MHE was 20%. Improvement on psychometic tests was seen in 75% of our patients (3/4) after treatmentwith lactulose. Lactulose treatment was well tolerated.
Keywords: P300 Event-Related Potential;Children;Extrahepatic Portal Vein Obstruction;Lactulose;Minimal Hepatic Encephalopathy;Neuropsychometri.

316. Serum Hepcidin as A Diagnostic Marker of Severe Iron Overload in Beta-Thalassemia Major

Ahmed Maher Kaddah, Amina Abdel-Salam, Marwa Salah Farhan and Reham Ragab

Indian Journal Ofpediatrics, 84: 745-750 (2017) IF: 0.945

Objectives : To investigate potential usefulness of serum hepcidin in the diagnosis of iron overload in children with β-thalassemia. Methods : A study was conducted on 30 thalassemia major (TM), 30 thalassemia intermedia (TI) and 60 healthy children as controls. Serum hepcidin was measured by Human Hepcidin, ELISA Kit. **Results** : β-thalassemia patients had a higher serum hepcidin compared to the controls ($p < 0.001$). TM group had higher hepcidin and ferritin compared to the TI group ($p = 0.034$; < 0.001, respectively). Among controls, hepcidin did not correlate with age ($r = 0.225$, $p = 0.084$). Among β-thalassemia patients, it correlated positively with age ($r = 0.4$; $p = 0.001$), disease duration ($r = 0.5$; $p < 0.001$), transfusion frequency ($r = 0.35$; $p = 0.007$), total number of transfusions ($r = 0.4$; $p = 0.003$), and ferritin ($r = 0.3$; $p = 0.027$). Total hemoglobin and serum ferritin were significantly related to hepcidin, which tended to increase by 0.514 ng/ml with each 1 g/dl rise in hemoglobin ($p = 0.023$) and by 0.002 ng/ml with each 1 ng/ml rise in serum ferritin ($p = 0.002$). Iron overload [serum ferritin (SF) ≥ 1500 ng/ml] was independently associated with TM ($p = 0.001$) and elevated serum hepcidin ($p = 0.02$). The overall predictability of serum hepcidin in severe iron overload was statistically significant when compared to hepcidin to serum ferritin ratio. **Conclusions :** Serum hepcidin is elevated in children with β-thalassemia; but this elevation is more evident in TM patients with severe iron overload. Thus, hepcidin can be a potential marker of severe iron overload in patients with TM. Further studies are recommended to compare serum hepcidin and serum ferritin in the prediction of severe iron overload in steady state and during infection or inflammation.
Keywords: Hepcidin Iron Overload B-Thalassemia Major B-Thalassemia Intermedia.

317. Clinical Spectrum of Primary Hyperoxaluria Type 1: Experience of A Tertiary Center.

Soliman NA, Nabhan MM, Abdelrahman SM, Abdelaziz H, Helmy R, Ghanim K, Bazaraa HM, Badr AM, Tolba OA, Kotb MA, Eweeda KM and Fayez A.

Néphrologie & Thérapeutique, 13: 176-182 (2017) IF: 0.917

Background and aim. Primary hyperoxalurias are rare inborn errors of metabolism resulting inincreased endogenous production of oxalate that leads to excessive urinary oxalate excretion. Diagnosis of primary hyperoxaluria type 1 (PH1) is a challenging issue and depends on diverse diagnostic tools including biochemical analysis of urine, stone analysis, renal biopsy, genetic studies and in some cases liver biopsy for enzyme assay. We characterized the clinical presentation as well as renal and extrarenal phenotypes in PH1 patients. **Methods.** This descriptive cohort study included patients with presumable PH1 presenting with nephrolithiasis and/or nephrocalcinosis (NC). Precise clinical characterization of renal phenotype as wellas systemic involvement is reported. AGXT mutational analysis was performed to confirm the diagnosis of PH1.**Results.** The study cohort included 26 patients with presumable PH1 with male to female ratio of 1.4:1. The median age at time of diagnosis was 6 years, nevertheless the median age at initial symptoms was 3 years. Thirteen patients (50%) were diagnosed before the age of 5 years. Two patients had no symptoms and were diagnosed while screening siblings of index patients. Seventeen patients (65.4%) had reached end-stage renal disease (ESRD): 6/17 (35.3%) during infancy, 4/17 (23.5%) in early childhood and 7/17 (41.29%) in late childhood. Two patients (7.7%) had clinically manifest extra renal (retina, heart, bone, soft tissue) involvement. Mutational

analysis of AGXT gene confirmed the diagnosis of PH1 in 15 out of 19 patients (79%) where analysis had been performed. Fifty percent of patients with maintainedrenal functions had projected 10 years renal survival. **Conclusion.** PH1 is a heterogeneous disease with wide spectrum of clinical, imaging and functional presentation. More than two-thirds of patients presented prior to the age of 5 years; half of them with the stormy course of infantile PH1. ESRD was the commonest presenting manifestation in two-thirds ofour cohort.
Keywords: End-Stage Renal Disease;Nephrocalcinosis;Nephrolithiasis;Oxalosis;Post-Transplantation Recurrence;Primary Hyperoxaluria Type 1.

318. Pediatric Sarcoidosis Presenting as Huge Splenomegaly.

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Pediatrics International, 59(3) (2017) IF: 0.822

Childhood sarcoidosis is a rare chronic multisystem granulomatous disease with variable presentations. It has two distinct forms:the juvenile form and the early onset form. Early onset sarcoidosisis caused by nucleotide-binding oligomerization domain 2(NOD2) mutation and is closely associated with dysfunction of the innate immunity. Symptomatic sarcoidosis is rare in children.The disease is more severe and extensive in African children.1Splenic involvement in sarcoidosis is rare, with some sporadic cases reported in the literature. We herein present a rarecase of splenic sarcoidosis in a 9-year-old Egyptian girl whohad no pulmonary involvement.
Keywords: Children;Sarcoidosis;Splenomegaly.

319. Enhancing Effect of Hydroxyurea on Hb F in Sickle Cell Disease: Ten-Year Egyptian Experience.

Youssry I, Abdel-Salam A, Ismail R, Bou-Fakhredin R, Mohamed Samy R, Ezz El-Deen F and Taher AT.

Hemoglobin, 41(4-6): 267-273 (2017) IF: 0.77

Patients with sickle cell disease experience hemolytic anemia and vaso-occlusions that result in pain, organ injury, and premature mortality. Several prospective studies have verified the efficacy and tolerability of hydroxyurea (HU), and demonstrated its efficacy in reducing painful vaso-occlusive crises (VOCs) in addition to its ability to increase Hb F levels. We aimed to evaluate the long-term effects of HU therapy on Hb F and assess its long term efficacy and safety in sickle cell disease patients. A retrospective study on 60 sickle cell disease patients was conducted. We studied the laboratory changes, frequency of VOCs per year, frequency of hospital admisions per year and number of transfusions per year, both before and after HU therapy. The follow-up period was 4 to 120 months. Hb F levels after HU therapy positively correlated with the duration of HU therapy, baseline Hb F levels and baseline total hemoglobin (Hb) ($r = 0.4$, $p = 0.04$; $r = 0.45$, $p = 0.001$; $r = 0.5$, $p = 0.019$, respectively) and inversely correlated with baseline total leucocyte count ($r = -0.33$, $p = 0.034$). Hydroxyurea therapy was associated with an increase in the total Hb and mean corpuscular volume (MCV) ($p = 0.009$, $p = 0.000$; respectively) and with a decrease in total leucocyte count, platelet count and reticulocyte count ($p = 0.00$, $p = 0.03$, $p = 0.02$, respectively). Moreover, a significant reduction in the frequency of VOCs, transfusion frequency and hospital admissions per year after HU therapy was shown in the studied subjects. Hydroxyurea induced an increase in Hb F level, which was maintained over time and was associated with clinical efficacy and acceptable safety.
Keywords: Hb F;Hydroxyurea (Hu);Sickle Cell Disease.

320. Osteocalcin Level in Children with Steroid Dependent/Frequently Relapsing and Steroid Resistant Nephrotic Syndrome

Emad E Ghobrial, Hanan Abdel-Aziz, Riham H El Sayed and Athar M Abdel-Aliem

Iranian Journal Of Pediatrics, 27(6) (2017) IF: 0.707

Background: Children with nephrotic syndrome (NS) may be at risk for metabolic bone disease because of biochemical derangement caused by renal disease as well as steroid therapy. Osteocalcin (OC) functions as an inhibitor of bone mineralization. We aimed to evaluate linear growth and bone turnover markers (including serum osteocalcin) in children with steroid-dependant/frequentlyrelapsing and steroid resistant NS in comparison to a matched control group. Methods: Our study was a cross-sectional study conducted at children's hospital, Cairo University, Egypt from July 2014 to August 2015. The study included 60 patients, aged 2 - 15 years recruited from outpatient nephrology clinic. Twenty eight age- and sexmatched healthy children were included as a control group. Serum OC was measured by immune-radiometric assay. **Results:** Serum OC levels were significantly higher in both SDNS/FRNS and SRNS than in control group, with P value 0.02 and 0.01, respectively. There was statistically significant negative correlation between OC and serum calcium. There was a negative correlation between height for age percentile and number of relapses. There were also negative correlations between height for age percentile and steroids, cyclophosphamide and cyclosporine duration of treatment. We found that both of our patients groups (SDNS/FRNS and SRNS) showed lower height for age percentile compared to control group (P = 0.017 and 0.001 respectively). **Conclusions:** Height as a growth parameter is more affected when recurrent relapses occur with multiple courses of steroid therapy. Use of OC as screening tool is recommended for bone turnover while patients on steroids.
Keywords: Osteocalcin;Nephroticsyndrome;Children.

321. Ocular Findings In Patients with Cholestatic Disorders of Infancy: A Single-Centre Experience.

El-Karaksy H, Hamed D, Fouad H, Mogahed E, Helmy H and Hasanain F.

Arab Journal Of Gastroenterology, 18(2): 108-113 (2017) IF: 0.672

Background and study aims: Neonatal cholestasis can be associated with ocular findings that might aid in its diagnosis, e.g., Alagille syndrome (AGS) and Niemann Pick disease (NPD). We aimed to investigate the frequency of ocular manifestations in infants with cholestasis. **Patients and methods:** This cross-sectional study included cholestatic infants presenting to the Paediatric Hepatology Unit, Cairo University Paediatric Hospital,

Cairo, Egypt. All infants underwent examination oflid, ocular motility, anterior and posterior segments and measurement of intraocular pressure, cycloplegic refraction, ocular ultrasonography and vision.**Results:** The study included 112 infants with various cholestasis; 73 (65.2%) were males. The median age was 2 months. Diagnosis was reached in 39 cases: 14 had AGS, 14 had biliary atresia (BA), 4 had NPD, 4 had post-haemolytic cholestasis, 2 had cytomegalovirus neonatal hepatitis, and one case had hepatorenal tyrosinaemia. Thirteen cases were probably having progressive familiar intrahepatic cholestasis (PFIC) type 1 or 2 considering their persistent cholestasis in the presence of normal gamma-glutamyl transpeptidase; 28 were left with a diagnosis of ''idiopathic neonatal hepatitis" (INH), and 32 (28.6%) had no definite diagnosis. Ophthalmologic abnormalities were found in 39 cases (34.8%). The commonest finding was unilateral/bilateral optic nerve drusen in 12 (10.7%), followed by posterior embryotoxon in 11 (9.8%). Ocular findings were observed in 64.3% patients with AGS, 50% patients with NPD, 30.8% cases with suspected PFIC type 1or 2, 28.6% infants with INH, and 14.3% patients with BA. **Conclusion:** Ophthalmologic findings are not uncommon among cholestatic infants. Ophthalmologic examination should be routinely performed, including assessment of anterior segment, fundus examination, and ocular ultrasound

Keywords: Alagille Syndrome Biliary Atresia Cholestasis Idiopathic Neonatal Hepatitis Optic Nerve Drusen Posterior Embryotoxon Progressive Familiar Intrahepatic Cholestasis.

322. Carotid Doppler Ultrasonography as A Screening Tool of Early Atherosclerotic Changes in Children and Young Adults with B-Thalassemia Major

Seif El-din Abaza, Amina Abdel-Salam, Ahmed A. Baz and Amira A. Mohamed

Journalof Ultrasound, 20: 301-308 (2017)

Purpose : β-thalassemia major (β-TM) patients had an increased incidence of cardiovascular complications secondary to iron overload. They showed early carotid atherosclerosis as showed by increased carotid intima media thickness (CIMT) that may occur early even when significant iron overload is absent. We aimed to test the diagnostic performance of CIMT measurement by Doppler ultrasonography as a structural indicator for premature atherosclerosis in β-TM patients.**Methods:** Case–control study included 42 β-TM patients (24 males and 18 females) aged from 3 to 30 years and 36 age- and sex-matched healthy controls. Carotid Duplex was used for measurement of CIMT in all subjects. **Results :** The frequency of abnormal CIMT among patients was 19%. Mean CIMT of right anterior wall was 0.8 ± 0.16 (range 0.5–1.2) mm, of right posterior wall was 0.80 ± 0.17 (range 0.5–1.2), of right lateral wall was 0.8 ± 0.17 (range 0.5–1.1) mm. CIMT of left anterior wall ranged from 0.5 to 1.2 with mean 0.81 ± 0.17, CIMT of left posterior wall ranged from 0.5 to 1.1 with mean 0.80 ± 0.17 mm. Mean CIMT of left lateral wall was 0.81 ± 0.18 mm (range 0.5–1.2). CIMT of right anterior, right posterior and left anterior walls were thicker in patients compared to controls (P = 0.003, 0.015, < 0.001, respectively). There was no observable difference in CIMT between males and females, splenectomised and non-splenectomised, or well and poorly chelated subgroups (P > 0.05). CIMT of right lateral wall correlated with the disease duration (r = 0.3, P = 0.04). **Conclusions :** Carotid ultrasound was a useful tool to detect subclinical atherosclerosis thorough CIMT evaluation in B-thalassemia major patients. B-thalassemia major children proved to have an increased CIMT regardless the state of iron overload.

Keywords: Carotid Intima;Media Thickness;Beta-Thalassemia;Iron Overload;Blood Transfusion.

323. Transcatheter Closure of Perimembranous Ventricular Septal Defects (Vsds) Using the Amplatzer Duct Occluder I Device

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Progress In Pediatric Cardiology, 46: 45-49 (2017)

Isolated ventricular septal defects (VSDs) are the commonest congenital cardiac malformation. Approximately 80% of clinically relevant defects are perimembranous (pm VSD) [1]. Device closure of muscular and perimembranous VSD appears to offer a real alternative to the standardsurgical approach [2]. However, the initial enthusiasm for transcatheter closure of clinically relevant pmVSDs was hampered with the anatomical challenges and the reported high rate of early and late heart block. Muscular defects are more amenable to closure, being distantfrom important structure. Perimembranous defects, on the other hand, lie in close proximity to the aortic valve and the conduction tissue crosses through the posteriormargin of the defect [3]. Furthermore, defects are not infrequently complicated by the presence of aneurysmal fibroustissue fromthe septal leaflet of the tricuspid valve, making the use of the devices technically challenging and increasing the potential risk of inducing increased tricuspid insufficiency [4]. Factors that govern the risk of development of heart block, remains poorly defined. The authorsof most case series are in agreement that device size in relation to the defect size is likely to be a critical factor. Additional factors are defect position, the age andweight of the patients aswell as the type of the device used [5]. Amplatzer duct occluder I (ADO I) devices appear to be an attractive option in perimembranous defects. The design of the devicewith absentbulk on the right ventricle (RV) side appears to be suitable for pmVSDs having tricuspid tissue at the edge. In developing countries, the lack of Progress in Pediatric Cardiology 46 (2017) 45–49∗ Corresponding author at: Faculty of Medicine, Cairo University, 9157 Adel Ghonaim st., 8th District, El Hadabah ElWosta, Mokattam, Cairo, Egypt. E-mail addresses: Aya.fattouh@gmail.com, aya.fattouh@kasrelainy.edu.eg (A.M. Fattouh). availability of early and affordable surgery, and the relatively high cost of currently available devices specifically designed for VSD closure createadditional problems in relation to access of patients to appropriate therapy. We therefore report on the immediate and midterm follow up results of using ADOI devices to close pmVSDs in a consecutive series of young patients.

Keywords: Perimembranous Ventricular Septal Defects; Amplatzer Duct Occluder I Device.

324. Cost-Effectiveness Analysis of Different Devices Used for the Closure of Small-To-Medium-Sized Patent Ductus Arteriosus in Pediatric Patients

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Annals Of Pediatric Cardiology, 10(2): 144-151 (2017)

Aims: In this study, we examined the differences in cost and effectiveness of various devices used for the closure of small to medium sized patent ductus arteriosus (PDA).**Setting and Design:** We retrospectively studied 116 patients who underwent closure of small PDAs between January 2010 and January 2015. Subjects and Methods:Three types of devices were used: the Amplatzer duct occluder (ADO) II, the cook detachable coil and the Nit Occlud coil (NOC). Immediate and late complications were recorded and patients were followed up for 3 months after the procedure. Statistical **Methods:** All statistical calculations were performed using Statistical Package for the Social Science software. P <0.05 were considered significant.Results: We successfully deployed ADO II devices in 33 out of 35 cases, cook detachable coils in 36 out of 40 cases and NOCs in 38 out of 41 cases. In the remaining nine cases, the first device was unsuitable or embolized and required retrieval and replacement with another device. Eleven patients (9.5%) developed vascular complications and required anticoagulation therapy. Patients who had hemolysis or vascular complications remained longer in the intensive care unit, with consequently higher total cost (P = 0.016). Also, the need for a second device increased the cost per patient.**Conclusions:** The cook detachable coil is the most cost-effective device for closure of small-to medium-sized PDAs. Calculations of the incremental cost-effectiveness. (ICE) revealed that the Cook detachable coil had 2/14/2018 Cost-effectiveness analysis of different devices used for the closure of small-to-medium-sized patent ductus arteriosus in pediatric patients with fewer complications.

Keywords: Amplatzer Duct Occluder Ii;Cook Detachable Coil;Cost-Effectiveness;Nit Occlud Coil;Patent;Ductus Arteriosus.

325. Changes in Monocyte Chemoattractive Protein, Nuclear Respiratory Factor 2, B-Cell Leukemia/Lymphoma 2 and Cholinesterase in Serum of Autistic Children

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Biomedical and Pharmacology Journal, 10: 659-666 (2017)

Autism is a neurodevelopmental disorder of early childhood with unknown aetiology. In thisstudy we aimed to investigate the changes in biochemical markers of inflammation, apoptosis, and mitochondrial function in the serum of children affected with autism spectrum disorder. Moreover we evaluated the changes in cholinesterase activity as a cholinergic marker in serum of these subjects.Twenty autistic children aged 3 to 12 years were gender and age-matched with 20 typically developing (TD) children. Changes in the levels of the proinflammatory cytokine monocyte chemoattractant protein-1 (MCP-1), the transcription factor nuclear respiratory factor 2 (NRF-2), the antiapoptotic factor -cell leukemia/lymphoma 2 (Bcl2) as well as cholinesterase activity were measured in serum of autistic children and controls. We found significant increments in serum MCP-1, NRF-2 and Bcl2 of autistic children by 185.3%, 41.8% and 63.5%, respectively, compared to corresponding control values. There was also marked increase in serum cholinesterase activity by 97.5% (P<0.001) in autistic patients compared to controls. These results indicate an increased inflammatory response in serum of autistic children and suggest that serum levels of BChE, Bcl2 and NRF-2 are elevated in autism, possibly as an adaptive mechanism to the chronic inflammatory process. Serum BChE might serve as a biomarker of inflammation in autistic subjects.

Keywords: Autism;Inflammation;Mitochondrial Dysfunction;Serum Cholinesterase.

326. Evaluation of Cardiac Functions in Children and Adolescents with Type 1 Diabetes

Faten M Abd-El Aziz, Shereen Abdelghaffar, Eman M Hussien and Aya M Fattouh

Journal Of Cardiovascular Ultrasound, 25(1): 12-19 (2017)

Background: Cardiac dysfunction in patients with type 1 diabetes (T1D) represents one of the serious complications. To evaluate the cardiac function in children with T1D by conventional echocardiography and tissue Doppler imaging (TDI).**Methods:** The study included 40 T1D patients (age between 6 and 16 years) with > 5 years duration of diabetes and 42 healthy control children. The patients were subjected to clinical evaluation and laboratory investigations [glycosylated hemoglobin A1c (HbA1c), serum lipids and lipoproteins]. Conventional echocardiography and TDI were performed to patients and controls. **Results:** The patients had lower early diastolic filling velocity (E wave) of the tricuspid valve and mitral valves with a p value of (0.000 and 0.006, respectively). TDI revealed that patients had lower S'velocity of the T1D, shorter isovolumic contraction time, longer isovolumic relaxation time and lower E/E' of the right ventricle than controls (p value 0.002, 0.001, 0.004, 0.003, and 0.016, respectively). The left ventricle (LV)-T1D of the patients was significantly higher (p value 0.02). Twenty eight patients had poor glycemic control without significant differences between them and those with good glycemic control regarding echocardiographic data. Patients with dyslipidemia (13 patients) had higher late iastolic filling velocity of the mitral valve (A) and the lower LV late tissue velocity (A') (p wave 0.047 and 0.015). No correlation existed between the duration of illness or the level ofHbA1c and the echocardiographic parameters.**Conclusion:** Diabetic children have evidence of echocardiographic diastolic dysfunctions. Periodic cardiac evaluation with both conventional and tissue Doppler echocardiography is recommended for early detection of this dysfunction.

Keywords: Tissue Doppler Echocardiography ;Type 1 Diabetes ; Children ; Diabetic Cardiomyopathy.

327. Visfatin Versus Flow-Mediated Dilatation as A Marker of Endothelial Dysfunction in Pediatric Renal Transplant Recipients

Fatina Fadel, Hafez M. Bazraa, Safaa M. Abdelrahman, Mohamed Gamal Shouman, Marwa Khaled Sayed, Doaa Mohamed Salah, Aliaa Ahmed Wahby and Heba F. Elgebaly

Open Access Macedonian Journal Of Medical Sciences, 5: 222-227 (2017)

Background: Renal transplantation (RTx) is the treatment of choice for paediatric end-stage renal disease (ESRD). A major cause of morbidity and mortality after RTx is cardiovascular disease. Independent predictors of cardiovascular events were shown to constitute an endothelial dysfunction (ED). This study aims to evaluate Visfatin serum level in comparison to brachial artery flow-mediated dilatation (FMD) as a marker of endothelial dysfunction in paediatric RTx recipients. **Methods:** Visfatin serum level has been evaluated in 30 patients on regular hemodialysis (HD), 36 patients post-RTx and 30 controls as a measure for ED, and has been compared to brachial artery FMD.RESULTS: Visfatin level in transplant recipients was significantly lower than the hemodialysis group as well as FMD was better in transplant recipients. In spite of marked improvement of FMD and marked reduction of visfatin in post-RTx no direct statistical correlation was found between serum Visfatin level and flow-mediated dilatation.**Conclusion:** Pediatric RTx recipients show lower serum Visfatin level and better FMD than those on regular hemodialysis, reflecting less endothelial dysfunction (ED) and less cardiovascular risk. FMD in kidney transplant recipients tends to be less than normal subjects while visfatin level of the same group is similar to controls. Pediatric RTx appears to have a positive impact on the growth development of children with ESRD.

Keywords: End Stage Renal Disease (Esrd);Children;Endothelial Dysfunction (Ed);Flow;Mediated Dilatation (Fmd);Renal Transplantation (Rtx);Visfatin.

328. Predictors of Transient Left Ventricular Dysfunction Following Transcatheter Patent Ductus Arteriosus Closure in Pediatric Age

Agha HM1, Hamza HS, Kotby A, Ganzoury MEL and Soliman N.

Journal Of The Saudi Heart Association, 29(4): 244-251 (2017)

Objectives: To evaluate the left ventricular function before and after transcatheter percutaneous patent ductus arteriosus (PDA) closure, and to identify the predictors of myocardial dysfunction post-PDA closure if present. **Interventions:**Transcatheter PDA closure; conventional, Doppler, and tissue Doppler imaging; and speckle tracking echocardiography.OUTCOME MEASURES:To determine the feasibility and reliability of tissue Doppler and myocardial deformation imaging for evaluating myocardial function in children undergoing transcatheter PDA closure. **Patients and Methods:**Forty-two children diagnosed with hemodynamically significant PDA underwent percutaneous PDA closure. Conventional, Doppler, and tissue Doppler imaging, and speckle-derived strain rate echocardiography were performed at preclosure and at 48 hours, 1 month, and 6 months postclosure. Tissue Doppler velocities of the lateral and septal mitral valve annuli were obtained. Global and regional longitudinal peak systolic strain values were determined using two-dimensional speckle tracking echocardiography.**Results:** The median age of the patients was 2 years and body weight was 15 kg, with the mean PDA diameter of 3.11 ± 0.99 mm. M-mode measurements (left ventricular end diastolic diameter, left atrium diameter to aortic annulus ratio, ejection fraction, and shortening fraction) reduced significantly early after PDA closure ($p < 0.001$). After 1 month, left ventricular end diastolic diameter and left atrium diameter to aortic annulus ratio continued to decrease, while ejection fraction and fractional shortening improved significantly. All tissue Doppler velocities showed a significant decrease at 48 hours with significant prolongation of global myocardial function ($p < 0.001$) and then were normalized within 1 month postclosure. Similarly, global longitudinal strain significantly decreased at 48 hours postclosure ($p < 0.001$), which also recovered at 1 month follow-up. Preclosure global longitudinal strain showed a good correlation with the postclosure prolongation of the myocardial performance index.**Conclusion:**Transcatheter PDA closure causes a significant decrease in left ventricular performance early after PDA closure, which recovers completely within 1 month. Preclosure global longitudinal strain can be a predictor of postclosure myocardial dysfunction.

Keywords: Global Myocardial Function;Longitudinal Strain;Patent Ductus Arterious;Tissue Doppler Imaging;Transcatheter.

329. Circulating Adipokines in Children with Nonalcoholic Fatty Liver Disease: Possible Noninvasive Diagnostic Markers

Amal Ahmed Mohameda, Said Sabryb, Asmaa Mahmoud Abdallahc,Naglaa Adly Abd Elazeemd, Doaa Refaeye, Hebat Allah Fadel Algebalyf,Gamal Abo El Fathg and Heba Omar

Annals Of Gastroenerology, 30 (2017)

Background The growing obesity pandemic is the leading cause for increasing prevalence of nonalcoholic fatty liver disease (NAFLD) in children. Histopathological evaluation of the liver remains the gold standard for NAFLD diagnosis, but it is an invasive procedure with a low but real risk of morbidity and mortality. The current study evaluated circulating chemerin and adiponectin as possible noninvasive diagnostic markers for NAFLD in obese non-diabetic children. **Methods** A prospective case-control study was conducted, which included 101 obese children with biopsy-proven NAFLD and 57 age- and sex-matched controls. The overall mean age of the children was 10.08±3.12 years. All underwent a full clinical assessment, routine laboratory investigation, and abdominal ultrasound. Homeostatic model assessment-insulin resistance was calculated and circulating chemerin and adiponectin were evaluated using ELISA. **Results** Elevated serum chemerin and decreased serum adiponectin were significantly associated with an increased likelihood of exhibiting NAFLD. Receiver operator characteristic curve analysis for differentiation of NAFLD patients from those in the control group demonstrated that chemerin, at a cutoff value of 186.7 ng/mL, yielded a sensitivity and specificity of 56.44% and 87.72% respectively ($P<0.001$), whereas adiponectin, at a cutoff value of 2.4 µg/mL, had a sensitivity and specificity of 74.26% and 3.51% respectively ($P<0.001$). Furthermore, body mass index, aspartate transaminase, alanine transaminase, triglycerides, and gamma-glutamyl transferase had significant

positive correlations with chemerin and significant negative correlations with adiponectin (P≤0.001). **Conclusion** Circulating chemerin and adiponectin could serve as simple noninvasive diagnostic markers for NAFLD in non-diabetic obese children. .
Keywords: Diagnosis;Noninvasive;Nonalcoholic Fatty Liver Disease;Obese Children.

330. Prevalence of Multiple Organ Dysfunction in the Pediatric Intensive Care Unit: Pediatric Risk of Mortality Iii Versus Pediatric Logistic Organ Dysfunction Scores for Mortality Prediction

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Revista Brasileira De Terapia Intensiva, 29 (2017)

Objectives : To assess the frequency of primary multiple organ failure and the role of sepsis as a causative agent in critically ill pediatric patients; and calculate and evaluate the accuracy of the Pediatric Risk of Mortality III (PRISM III) and Pediatric Logistic Organ Dysfunction (PELOD) scores to predict the outcomes of critically ill children.**Methods:** Retrospective study, which evaluated data from patients admitted from January to December 2011 in the pediatric intensive care unit of the Children's Hospital of the University of Cairo. **Results:** Out of 237 patients in the study, 72% had multiple organ dysfunctions, and 45% had sepsis with multiple organ dysfunctions. The mortality rate in patients with multiple organ dysfunction was 73%. Independent risk factors for death were mechanical ventilation and neurological failure [OR: 36 and 3.3, respectively]. The PRISM III score was more accurate than the PELOD score in predicting death, with a Hosmer-Lemeshow X2 (Chi-square value) of 7.3 (df = 8, p = 0.5). The area under the curve was 0.723 for PRISM III and 0.78 for PELOD. **Conclusion:** A multiple organ dysfunctions was associated with high mortality. Sepsis was the major cause. Pneumonia, diarrhea and central nervous system infections were the major causes of sepsis. PRISM III had a better calibration than the PELOD for prognosis of the patients, despite the high frequency of the multiple organ dysfunction syndrome.
Keywords: Multiple Organ Failure;Intensive Care Units; Pediatric; Statistics; Numerical Data;Child.

Dept. of Pharmacology

331.Carvedilol Can Attenuate Histamine-Induced Paw Edema and Formaldehyde-Induced Arthritis in Rats Without Risk of Gastric Irritation

Afaf Sayed Osman, Dina Ahmed Labib and Mahmoud M. Kamel

International Immunopharmacology, 50: 243-250 (2017)
IF: 2.956

Background and aim Rheumatoid arthritis treatment aims to control joint damage and any associated complications such as cardiovascular disease. Most anti-inflammatory drugs have a high tendency to cause gastro-intestinal irritation. The present study is designed to investigate the anti-inflammatory effect of carvedilol and to study its effect on gastric mucosa.Experimental approachLornoxicam (1.3 mg/kg) or carvedilol (10 mg/kg) was administrated orally 1 h before histamine injection into animals of a histamine-induced paw edema model and orally daily for 11 days into animals of a formaldehyde-induced arthritis model. Tumor necrosis factor-α and prostaglandin E2 were measured in animals of the formaldehyde-induced arthritis model. The effect of lornoxicam and carvedilol on gastric mucosa was assessed in normal rats and after induction of cold stress ulcer.**Results**Carvedilol succeeded in reducing hind paw edema in both histamine-induced paw edema and formaldehyde-induced arthritis and in reducing the elevated level of tumor necrosis factor-α and prostaglandin E2 nearly with near equal efficacy compared with lornoxicam. Carvedilol did not show any ulcerative effect on the gastric mucosa of normal rats, and its use was associated with an improvement of both the gross and histopathological pictures of gastric ulcers in animals of the cold stress ulcer model compared with lornoxicam treated rats.**Conclusion**The current findings support the use of carvedilol both in the management of inflammation as well as the prevention of cardiovascular complications in rheumatoid arthritis patients. The use of carvedilol was not associated with any gastro-intestinal tract irritation.
Keywords: Carvedilol; Lornoxicam; Arthritis; Gastric Ulceration

332. A Torvastatin, A Double Weapon in Osteoporosis Treatment: an Experimental and Clinical Study

N aglaa El-Nabarawi ,Mohamed El-Wakd and Mostafa Salem

Drug Design Development and Therapy, 11: 1383-1391 (2017)
IF: 2.822

The aim of this study was to evaluate the effect of atorvastatin on the bone formation and resorption markers in ovariectomized rats (experimental study), and to study its effect on the bone mineral density (BMD) in postmenopausal osteoporotic women (clinical study).Materials and methods: The study involved experimental and clinical aspects. In the experimental aspect, 42 female Wistar rats were divided into five groups: Group I (n=6; sham-operated), Group II (n=6; 1 mL of carboxymethyl cellulose [CMC] was administered orally), Group III (n=6; 20 mg/kg orally of atorvastatin was administered), Group IV (n=12; untreated ovariectomized [OVX] rats and served as a model of osteoporosis [OP]) and Group V (n=12; 20 mg/kg orally of atorvastatin was administered to ovariectomized rats). After 4 weeks, serum acid phosphatase, alkaline phosphatase, osteocalcin, total calcium and inorganic phosphorus were assessed. Then, 3 µm thickness lumbar and femur sections were examined using a light microscope to assess cortical thickness, trabecular area, numbers of osteoblasts and osteoclasts. In the clinical aspect, 85 post-menopausal osteoporotic females with recently detected hyperlipidemia participated in the study. Atorvastatin 40 mg/day, calcium carbonate 500 mg/day and vitamin D 800 international units were given to all patients for a period of 18 months. BMD was measured at the start and at the end of the study by dual-energy X-ray absorptiometry (DEXA).Results: In the experiment aspect, the biomarkers of bone remodeling were notably elevated in the OVX group. Administration of atorvastatin produced a significant decrease in the level of these bone metabolic markers. Atorvastatin significantly ameliorates osteoporotic changes induced by ovariectomy. In the clinical aspect, after 18 months the DEXA showed improvement in the T-score for the three measured zones; however, these changes were statistically significant only in the femoral neck area.Conclusion: Atorvastatin was able to decrease the rate of bone metabolism and increase osteogenic activity. It has dual mode of action; both anabolic and

antiresorptive effect on bone. This lipophilic statin member may act as a double weapon drug.
Keywords: Atorvastatin;Statin;Osteoporosis;Bmd;Bone Formation.

333. Synergistic Analgesic, Anti-Pyretic And Anti-Inflammatory Effects of Extra Virgin Olive Oil and Ibuprofen in Different Experimental Models in Albino Mice

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International Journal Of Rheumatic Diseases, 20: 1326-1336 (2017) IF: 2.624

AimOlive oil was used in the past as a remedy for many diseases due to its unlimited benefits in health. This study was carried out to assess the analgesic, anti-pyretic and anti-inflammatory activities of extra virgin olive oil (EVOO) at a dose of 8 mL/kg body weight and to compare it with ibuprofen (IBU) as an individual drug therapy and in combination with two different doses of IBU (therapeutic dose 100 mg/kg and low dose 40 mg/kg), on different animal models in albino mice.MethodA total of 132 adult healthy male Swiss albino mice were used in this study. The analgesic effect was assessed using acetic acid-induced writhing test. The antipyretic effect was evaluated by brewer's yeast-induced pyrexia, while the anti-inflammatory activity was assessed by two different models; the carrageenan-induced paw edema and the carrageenan-induced peritonitis in which the levels of total leukocyte count (TLC), neutrophil count, prostaglandin E2 (PGE2) and interferon gamma (INF-γ) were measured in the peritoneal exudates.ResultsThe results revealed significant protection in all the treated groups; however, the combination of EVOO with IBU at its therapeutic dose showed superiority over the two compounds when used separately.ConclusionUsing EVOO with the therapeutic dose of IBU showed synergistic effect in controlling the cardinal signs of acute inflammation rather than using non-steroidal anti-inflammatory drugs alone.
Keywords: Key Words: Evoo; Ibuprofen; Anti-Inflammatory; Anti-Pyretic; Analgesic Effects.

334. Treatment of Radiation-Induced Oral Mucositis Using A Novel Accepted Taste of Prolonged Release Mucoadhesive Bi-Medicated Double-Layer Buccal Films

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Aaps Pharmscitech, 18: 563-575 (2017) IF: 2.451

The aim of this study was to develop a novel double-layer bi-medicatedprolonged release mucoadhesive buccal film (MBF) containing lidocaine hydrochloride(LC) and diclofenac potassium (DK). The ultimate goal of the prepared system is thetreatment of radiation-induced oral mucositis pain with improved patient acceptance.MBFs were prepared using 3 × 22 randomized full factorial design for film optimization.Nanoemulsion system (NES) was used to mask DK bitter taste. The prepared filmswere characterized, viz thickness, mass uniformity, surface pH, folding endurance,swelling studies, ex vivo bioadhesive strength, in vitro drug release, and ex vivopermeation. The in vivo evaluation was carried out by testing the anti-inflammatory andanalgesic activities on rats followed by a clinical study on patients to prove theiracceptance. The optimized MBF composed of 10% w/w HPMC-4KM, 50 mg LC, and50 mg DK-NES was selected due to prolonged in vitro drug release pattern and ex vivopermeability (95.24 ± 2.14 and 93.48 ± 3.24% in 6 h, respectively). MBF exposed a stronganti-inflammatory effect from 61 to 87% inhibition with a strong analgesic effect whencompared to DK® and LC®, respectively. The clinical study revealed that films wereaccepted by the patients, and the presence of LC on the outer side helped in painfeeling reduction while DK-NES in the inner side facilitated in rapidly relieving theinflammation effect.
Keywords: Bilayer Films; Diclofenac Potassium; Lidocaine; Mucoadhesive; Oral Mucositis

335.The Selective Tyrosine Kinase-Inhibitor Nilotinib Alleviates Experimentally Induced Cisplatin Nephrotoxicity and Heptotoxicity

Hayam Ateyya , Zeinab A. Hassan and Nagla A. El-Sherbeeny

Environmental Toxicology and Pharmacology, 55: 60-67 (2017) IF: 2.313

This work tested the action of nilotinib, selective inhibitor of tyrosine kinase on cisplatin (CP)-induced damage of kidney and liver in rats. Rats were assigned to 4 groups, control, nilotinib, CP, and CP plus nilotinib. Assessment of kidney and liver function, lipid peroxidation and antioxidant markers, anti-apoptotic protein Bcl2, nuclear factor- kappa B (NF-κB) immunoreactivity, and caspase 3 activity were done. CP-induced damage evidenced by histopathological changes, deterioration of renal and liver function, imbalance in oxidants/antioxidants markers, decreased Bcl2, increased caspase 3 activity, and NF-κB nuclear expression in both organs. Nilotinib treatment with CP restored kidney and liver oxidants/antioxidant levels also increased Bcl2 and decreased NF-κB immunoreactivity were evident with nilotinib treatment. In conclusions these results demonstrated a protective effect of nilotinib in experimentally induced CP kidney and liver damage that could be mediated through combating oxidative stress, reducing inflammation and anti-apoptosis in the two organs.
Keywords: Apoptosis;Cisplatin;Hepato-Nephrotoxicity; Nilotinib; Oxidative Stress.

336. Effect of Combination of Fractional Co2 Laser and Narrow-Band Ultraviolet B Versus Narrow-Band Ultraviolet B in the Treatment of Non-Segmental Vitiligo

Mohamed Bakr El-Zawahry, Naglaa Sameh Zaki , Marian Youssry Wissa and Marwah Adly Saleh

Lasers In Medical Science, 32: 1953-1958 (2017) IF: 2.299

The present study was designed to evaluate the effect of combining fractional CO2 laser with narrow-band ultraviolet B (NB-UVB) versus NB-UVB in the treatment of non-segmental vitiligo. The study included 20 patients with non-segmental stable vitiligo. They were divided into two groups. Group I received a single session of fractional CO2 laser therapy on the right side of

the body followed by NB-UVB phototherapy twice per week for 8 weeks. Group II received a second session of fractional CO2 laser therapy after 4 weeks from starting treatment with NB-UVB. The vitiligo lesions were assessed before treatment and after 8 weeks of treatment by VASI. At the end of the study period, the vitiligo area score index (VASI) in group I decreased insignificantly on both the right (−2.6%) and left (−16.4%) sides. In group II, VASI increased insignificantly on the right (+14.4%) and left (+2.5%) sides. Using Adobe Photoshop CS6 extended program to measure the area of vitiligo lesions, group I showed a decrease of −1.02 and −6.12% in the mean area percentage change of vitiligo lesions on the right and left sides, respectively. In group II the change was +9.84 and +9.13% on the right and left sides, respectively. In conclusion, combining fractional CO2 laser with NB-UVB for the treatment of non-segmental vitiligo did not show any significant advantage over treatment with NB-UVB alone. Further study of this combination for longer durations in the treatment of vitiligo is recommended.
Keywords: Vitiligo Nb-Uvb Fractional Co2 Laser Vasi.

337. Allopurinol Ameliorates High Fructose Diet-Induced Metabolic Syndrome Via Up-Regulation of Adiponectin Receptors and Heme Oxygenase-1 Expressions in Rats

Mostafa-Hedeab, Gomaa Ali, Esam Fouad Abd Elhaleem, Fatma Mahmoud Abdel Fattah, Dina Sabry Shahataa, Mary Gergis El-Nahass, El-Shaymaa and Ewais Manal

Biomedica and Pharmacology Journal, 10(4): 1685-1694 (2017)

Objective: to explore allopurinol action on the metabolic syndrome (MS) components inducedby high fructose diet (HFD). Material & methods: Twenty-one rats were classified randomly into 2groups; group A (7 rats; normal control) and group B (14 rats; received a high fructose diet (HFD).Meanwhile, group B is further classified into 2 subgroups: B1 received no treatment and B2 inwhich rats received allopurinol (4mg/kg/d for 4 weeks). **Results:** Allopurinol significantly decreasedbody weight (BW), normalized kidneys and heart weight, blood pressure (BP) and insulin level withnormalized both of fasting glucose level and insulin resistance (IR). Furthermore, triglycerides (TGs)and low-density lipoprotein cholesterol (LDL-c) were significantly decreased with normalized highdensitylipoprotein cholesterol (HDL-c), total cholesterol, creatinine, blood urea nitrogen (BUN), andserum uric acid (SUA) levels. Surprisingly, allopurinol significantly up regulate adiponectin receptorone and two (adipo R1/R2) and heme oxygenase-1 (HO-1) in heart, liver and kidneys pancreasassociated with up regulation of endothelial nitric oxide synthase (eNOS) expression in liver, kidneys,heart only associating with amelioration of the fibrotic changes in different tissue studied. Moreover, itnormalized IR, pancreatic AdipoR2, and HO-1 expression. **Conclusion:** allopurinol could be consideredan ideal agent for an amelioration of MS components possibly through up regulation of adipo R1/R2,HO-1 and eNOS in different tissues; however more experimental and clinical studies are needed toweight the expected allopurinol benefit against its long term use related side effects.
Keywords: Allopurinol;Metabolic Syndrome;Adiponectin R1/R2;Heme Oxygenase-1.

Dept. of Physiology

338. The Protective Effect of 1Alpha, 25-Dihydroxyvitamin D3 and Metformin on Liver in Type 2 Diabetic Rats

Samah Elattar , Suzanne Estaphan , Enas A Mohamed , Ahmed Elzainy and Mary Naguib

Journal Of Steroid Biochemistry & Molecular Biology, 173: 235-244 (2017) IF: 4.561

There is an accumulating evidence suggesting an immunomodulatory role of 1a,25(OH)2D3. Altered1a ,25 (OH)2D3 level may play a role in the development of T2DM and contribute to the pathogenesis ofliver diseases. Our study was designed to study and compare the effect of metformin and 1a,25(OH)2D3supplementation on liver injury in type 2 diabetic rat.Sixty male Albino rats were divided into 5 groups; group 1: control rats. the remaining rats were fedhigh fat diet for 2 weeks and injected with streptozotocin (35 mg/kg BW, i.p.) to induce T2DM and weredivided into: group 2: untreated diabetic rats, group 3: diabetic rats treated by metformin (100 mg/kgBW/d, orally), group 4: diabetic rats supplemented by 1a,25(OH)2D3 (0.5mg/kg BW, i.p.) 3 timesweekly and group 5: supplemented by both 1a,25(OH)2D3 and metformin. Eight weeks later, serumglucose and insulin levels were measured, HOMA IR was calculated, lipid profile, Ca2+, ALT and AST wereestimated. Liver specimens were taken to investigate PPAR-a (regulator of lipid metabolism), NF-kB p65,caspase 3 and PCNA (proliferating cell nuclear antigen) and for histological examination.The liver enzymes were elevated in the diabetic rats and the histological results revealed an injuriouseffect of diabetes on the liver.1a,25(OH)2D3, metformin and both drugs treatment significantly improvedliver enzymes as compared to the untreated rats. The improvement was associated with a significantimprovement in the glycemic control, lipid profile and serum Ca2+ with a significant reduction in NF-kBp65 and caspase 3 and increased PPAR-a, and PCNA expression as compared to the untreated group.1a,25(OH)2D3 induced a slightly better effect as compared to metformin. Both agents together had asynergistic action and almost completely protected the liver. Histological results confirmed thebiochemical findings.Our results showed a protective effect of 1a,25(OH)2D3 and metformin on liver in diabetic rats asindicated by an improvement of the level of the liver enzymes, decreased apoptosis and increasedproliferation and this was confirmed histologically, with modulating NFkB and PPAR-a. Both agentstogether had a synergistic effect.
Keywords: Diabetic Liver;1A;25(Oh)2D3;Metformin;Ppar-A; Nfkb;Pcna;Caspase-3.

339. The Cellular Selection Between Apoptosis and Autophagy: Roles of Vitamin D, Glucose and Immune Response in Diabetic Nephropathy

Magda Hamzawy, Sarah Ali Abdelhameed Gouda, Laila Rashid, Mary Attia Morcos, Heba Shoukry and Nivin Sharawy

Endocrine, 58: 66-80 (2017) IF: 3.131

Background and aims: Apoptosis, autophagy and cell cyclearrest are cellular responses to injury which are supposed

toplay fundamental roles in initiation and progression ofdiabetic nephropathy (DN). The aims of the present study isto shed light on the potential effects of vitamin D analog 22-oxacalcitriol (OCT) on different cell responses during DN,and the possible interplay between both glucose, immunesystem and vitamin D in determining the cell fate.Method All rats were randomly allocated into one of threegroups: control, vehicle-treated DN group and OCT-treatedDN group. Eight weeks after induction of diabetes, the ratswere killed. Fasting blood glucose levels, serum 25 (OH) D,renal functions, cytokines and gene expression of autophagy, apoptotic and cell cycle arrest markers were assessed.In addition, the histological assessment of renal architecturewas done.Results OCT treatment remarkably improved the renalfunctions and albuminuria. The reductions in mesangial cellhypertrophy, extracellular matrix as well as cell loss weresignificantly associated with upregulation of pro-autophagy gene expressions and downregulation of both pro-apoptoticand G1-cell cycle arrest genes expression. The renoprotectiveeffects of OCT treatment were associated withsignificant attenuation of the fasting blood glucose, serumIL-6, renal TLR-4 and IFN-g gene expression.Conclusion Modulator effects of OCT on glucose andimmune system play important roles in renal cell fatedecision and chronic kidney disease progression.

Keywords: Diabetes; Kidney; Vitamin; Autophagy; Cytokine; Apoptosis.

340. Prophylactic Supplementation of Resveratrol is More Effective than its Therapeutic Use Against Doxorubicin Induced Cardiotoxicity

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Plos One, 12: 1-13 (2017) IF: 2.806

Resveratrol (RSV), a polyphenolic compound and naturally occurring phytoalexin, has beenreported to exert cardio-protective effects in several animal studies. However, the outcomeof initial clinical trials with RSV was less effective compared to pre-clinical studies. Therefore,RSV treatment protocols need to be optimized. In this study we evaluated prophylacticversus therapeutic effect of resveratrol (RSV) in mitigating doxorubicin (Dox)-induced cardiactoxicity in rats. To investigate prophylactic effects, RSV was supplemented for 2 weeksalong with Dox administration. After 2 weeks, Dox treatment was stopped and RSV wascontinued for another 4 weeks. To study therapeutic effects, RSV treatment was initiatedafter 2 weeks of Dox administration and continued for 4 weeks. Both prophylactic and therapeuticuse of RSV mitigated Dox induced deterioration of cardiac function as assessed byechocardiography. Also RSV treatment (prophylactic and therapeutic) prevented Doxinduced myocardial damage as measured by cardiac enzymes (LDH and CK-MB) in serum.Which was associated with decrease in Dox induced myocardial apoptosis and fibrosis.Interestingly our study also reveals that prophylactic use of RSV was more effective than itstherapeutic use in mitigating Dox induced apoptosis and fibrosis in the myocardium. Therefore,prophylactic use of resveratrol may be projected as a possible future adjuvant therapyto minimize cardiotoxic side effects of doxorubicin in cancer patients.

Keywords: Resveratrol;Doxorubicin;Apoptosis;Cardiotoxcisty.

341.Hepatoprotective Effect of Blocking N-Methyl-D-Aspartate Receptors in Male Albino Rats Exposed to Acute and Repeated Restraint Stress

Shaimaa Nasr Amin, Ahmed Amro El-Aidi, Maha Baligh Zickri, Laila Ahmed Rashed and Sherif Sabry Hassan

Canadian Journal Of Physiology and Pharmacology, 95: 721-731 (2017) IF: 1.822

Stress affects many organs in addition to the brain, including the liver. We assessed the effects on the liver of blocking N-methyl-d-aspartate (NMDA) glutamate receptors with memantine in acute and repeated restraint stress. Forty-two male albino rats were divided into 7 groups; control, acute restraint stress (ARS), ARS + memantine, repeated restraint stress, repeated restraint + memantine, and positive control groups. We measured serum iron, zinc, alanine transferase and aspartame transferase, hepatic malondialdehyde, tumor necrosis factor-α (TNF-α), glutathione peroxidase, superoxide dismutase, metallothionein content, zinc transporter ZRT/IRT-like protein 14 mRNA expression, and hepcidin expression. We conducted a histopathological evaluation via histological staining and immunostaining for glial fibrillary acidic protein and synaptophysin expression, both of which are markers of hepatic stellate cell (HSC) activation. Both ARS and repeated stress increased markers of hepatic cell injury, oxidative stress, and HSC activation. Blocking NMDA with memantine provided a hepatoprotective effect in acute and repeated restraint stress and decreased hepatic cell injury, oxidative stress, and HSC activation.

Keywords: Acute Stress;Repeated Stress; Restraint; Liver; Memantine.

342. Microcirculation Research in Community Hospitals - Challenges and Chances.

Hartmut Kern, Nivin Sharawy, Joel Sardinha and Christian Lehmann

Clinical Hemorheology and Microcirculation, 67: 511-514 (2017) IF: 1.679

Community hospitals provide ideal conditions for large clinical studies because of the high volume of unselected patients admitted every year. With regard to microcirculatory studies, there are still some feasibility problems which are not solved yet. First of all, the lack of reliable automated software to analyze microcirculatory images represents the most important issue. Secondly, hardware aspects still need improvements regarding portability and miniaturization. Finally, to conduct studies of the microcirculation in a community hospital is also always a funding issue. The cost of the measurement device is hereby only one factor. Main cost factor is the personnel.

343. Effect of Melatonin Supplemented at the Light or Dark Period on Recovery of Sciatic Nerve Injury in Rats

Enas Ezzat Rateb, Shaimaa Nasr Amin, Nashwa El-Tablawy, Laila Ahmed Rashed and Samah El-Attar

Excli Journal, 16: 138-150 (2017) IF: 1.462

Peripheral nerve injuries can cause disabilities, social or economic problems. Melatonin, the secretory product of the pineal gland has antioxidant and anti-inflammatory actions. The aim of the present study was to investigate the effect of melatonin on the recovery of sciatic nerve after injury, comparing its effect when given in the light or the dark periods. Forty adult male Albino rats were allocated into four groups: control, nerve injury, nerve injury + melatonin given at light and nerve injury + melatonin given at dark. Nerve injury was initiated by clamping the sciatic nerve. Sciatic functional index (SFI) was measured preoperatively and postoperatively. Melatonin was given daily for six weeks. Recovery of the function was analyzed by functional analysis, electrophysiological analysis and biochemical measurement of Superoxide dismutase (SOD), Interleukin 1-beta (IL-1 β), Nerve growth factor (NGF), and bcl-2. Melatonin improved SFI, nerve conduction velocity (NCV) and the force of gastrocnemius muscle contraction as compared to the untreated rats. SOD activity, NGF, and bcl-2 were significantly increased, while IL-1β was significantly decreased after melatonin treatment as compared to the untreated injury group. SFI reached the control level; muscle contraction and IL-1B were significantly improved in the group treated with melatonin in the dark. Melatonin fastened the neural recovery and may be used in the treatment of nerve injury and it induced better nerve regeneration when the rats were treated during the dark period.

Keywords: Ncv;Sfi;Melatonin;Nerve Injury.

Dept. of Psychology

344. Trends in Tramadol: Pharmacology, Metabolism, and Misuse.

Miotto, Karen; Cho, Arthur K.; Khalil, Mohamed A.; Blanco, Kirsten BS; Sasaki, Jun D. and Rawson Richard

Anesthesia & Analgesia, 124(1): 44-51 (2017) IF: 4.014

Tramadol is a unique analgesic medication, available in variety of formulations, with both monoaminergic reuptake inhibitory and opioid receptor agonist activity increasingly prescribed worldwide as an alternative for high-affinity opioid medication in the treatment of acute and chronic pain. It is a prodrug that is metabolized by cytochrome P450 (CYP) enzymes CYP2D6 and CYP3A4 to its more potent opioid analgesic metabolites, particularly the O-demethylation product M1. The opioid analgesic potency of a given dose of tramadol is influenced by an individual's CYP genetics, with poor metabolizers experiencing little conversion to the active M1 opioid metabolite and individuals with a high metabolic profile, or ultra-metabolizers, experiencing the greatest opioid analgesic effects. The importance of the CYP metabolism has led to the adoption of computer clinical decision support with pharmacogenomics tools guiding tramadol treatment in major medical centers. Tramadol's simultaneous opioid agonist action and serotonin (5-HT) and norepinephrine reuptake inhibitory effects result in a unique side effect profile and important drug interactions that must be considered. Abrupt cessation of tramadol increases the risk for both opioid and serotonin-norepinephrine reuptake inhibitor withdrawal syndromes. This review provides updated important information on the pharmacology, pharmacokinetics, CYP genetic polymorphisms, drug interactions, toxicity, withdrawal, and illicit use of tramadol.

Keywords: Tramadol;Synthetic Opioid;Seizure;Snri-Like.

345. Optical Coherence Tomography Findings in Patients with Bipolar Disorder.

Mohamed A. Khalil, Alia A. Saleh, Sherif M. Gohar, Dalia Hamed Khalil and Mohamed Said

Journal Of Affective Disorders, 218: 115-122 (2017) IF: 3.432

Background: Research in bipolar disorder suggests the presence of structural brain abnormalities. It is not clear whether these findings are trait markers or operate with the onset and progress with disease severity and duration. Optical coherence tomography (OCT) is a non-invasive technique that detects degenerative changes in the retina reflecting brain degeneration. This study aimed at detecting these changes and relating them to disease severity and clinical characteristics.**Methods:**A case-control study conducted in Psychiatry and Addiction Medicine hospital, Faculty of Medicine at Cairo University. Forty inpatients with bipolar disorder -according to the 4th edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) - were compared to forty matched healthy controls. Patients were subjected to the Structured Clinical Interview of DSM-IV (SCID-I), Hamilton Depression Rating Scale (HAM-D) and Young Mania Rating Scale (YMRS). Both patients and controls were subjected to OCT.**Results:**Patients showed thinning of Retinal Nerve Fiber Layer (RNFL) relative to control subjects in most of the OCT parameters including Right average ($p<.001$ and 95% CI [14.39, 19.84]), Lt average ($p<.001$ and 95% CI [13.03, 19.42]). Patients also showed decreased Ganglionic Cell Complex (GCC) significantly in Rt average ($p=.002$ and 95% CI [2.33, 9.78]), Lt average ($p<.001$) and 95% CI [4.47, 11.63]. Age at onset, number of episodes, and severity did not significantly correlate with OCT parameters.LIMITATIONS:The small sample and absence of follow-up.**Conclusions:**Patients with bipolar disorder show degenerative changes detected by OCT in relation to healthy controls.

Keywords: Degenerative Changes;Gcc;Mood Disorder;Oct;Rnfl.

346. The Stafford Interview A Comprehensive Interview for Mother-Infant Psychiatry

Ian Brockington , Prabha Chandra , Alessandra Bramante , Hettie Dubow , Walaa Fakher , LLuïsa Garcia-Esteve , Kristina Hofberg , Suaad Moussa , Bruma Palacios-Hernández , Ylva Parfitt and Pey-Ling Shieh

Archives Of Women's Mental Health, 20: 107-112 (2017) IF: 3.397

This article describes an interview exploring the social, psychological and psychiatric events in a single pregnancy and puerperium. It has been in development since 1992 and is now in its 6th edition. It takes approximately 2 h to administer and has 130 compulsory probes and 185 ratings. It is suitable for clinical practice, teaching and research.

Keywords: Pregnancy Parturition The Puerperium The Mother-Infant Relationship

347. Eating Attitudes in Egyptian Male Patients with Opioid Dependence

Maha W. Mobasher, Rania M. Mohamed, Mohamed A. Khalil and Mohamed E. Akl

Addictive Disorders & Their Treatment, 16: 28-35 (2017)

Objectives: Patients with substance-use disorders in general and with opiate use in particular may suffer from different eating problems. A higher prevalence of eating disorders is evident in patients with opiate-use disorders than general population.**Materials and Methods:** Three groups aged 20 to 50 years with 30 male participants in each group were included in the study. Participants in group 1 were opioid-dependent patients with <1 week's abstinence from substance. Group 2 included patients with opioid dependence after completion of 30 days' detoxification. Participants in the third group consisted of volunteers with no substance-use disorders. Members of patient groups (1 and 2) were diagnosed according to DSM-IV and were tested using Addiction Severity Index, while the all 3 groups were tested using Eating Attitudes Test-26 (EAT-26).**Results:** Group 2 had the highest dieting scale score of EAT-36, followed by group 1 and group 3 (P=0.000). There was no difference with regard to bulimia and the Food Preoccupation Scale score in the 3 groups studied (P=0.123). Group 1 had the highest Oral control scale score followed by group 2 and group 3 (P=0.000). In the total EAT-36 score, patients with current opioid dependence had the highest scores (P=0.000). Tramadol daily dose correlated positively with the bulimia scale, oral control scale, and total EAT-26 in all patients of groups 1 and 2 together (P=0.014, 0.025, and 0.000, respectively).**Conclusions:** Eating patterns among patients with opioid dependence are different from that of patients in recovery and the normal population.
Keywords: Attitudes;Opioid Dependence;Eat-36.

348. Do Motivational Incentives Facilitate Drug Addiction Therapy?

Maha W. Mobasher, Dalia Enaba and Mohamed A. Khalil

Addictive Disorders & Their Treatment, 16: 13-19 (2017)

Objectives: Motivation To Change Behavior Is An Important Therapeutic Factor That Affects Treatment Outcomes In Patients With Substance-Use Disorders. The Motivation Level Influences Treatment Engagement, Retention, And Outcomes. Assessment Of Motivation Is An Important Aspect Of Management Of These Patients.**Methods:**A Total Of 26 Patients Admitted In Kasr Al-Ainy Addiction Unit Fulfilling Diagnostic And Statistical Manual Of Mental Disorders, 4th Edition Criteria Of One Or More Substance Dependence Disorder Were Included. Patients Were Assessed Using The Stage Of Change Readiness And The Treatment-Eagerness Scale (SOCRATES) And Addiction Severity Index Before Attending 4 Motivation-Incentives Group Psychotherapy Sessions: 1 Session/Week. Patients Were Reassessed Using SOCRATES After The Sessions.Results: SOCRATES Increased 3 Scales After The Motivation-Incentives Groups; However, Recognition And Ambivalence Scales Showed Significant Increase (P=0.005 and 0.012, Respectively), Whereas The Increase In The Taking Steps Scale Was Not Statistically Significant, With P=0.125. A Best-Fit Model Of Regression Was Calculated For Factors That May Predict SOCRATES Before The Group. Age Of The Patient, Education Years, Main Substance Of Abuse (Either Tramadol Or Other Substances), History Of Suicide, Previous Treatment Trial, Positive Or Negative Medical History, History Of Alcohol Use, History Of Legal Problems, Presence Of Family Issues, And Psychiatric Complications Were Predictors Of The Recognition, Ambivalence, And Taking Steps Components Of Motivation.**Conclusions:**Short-Motivation Incentives Group Therapy May Improve The Readiness To Change In Patients With Polysubstance Dependence.
Keywords: Group Therapy;Socrates;Behavioral Therapy.

Dept. of Public Health

349. Attacks Against Health Care in Syria, 2015–16: Results from A Real-Time Reporting Tool

Mohamed Elamein, Hilary Bower, Camilo Valderrama, Daher Zedan, Hazem Rihawi, Khaled Almilaji, Mohammed Abdelhafeez, Nabil Tabbal, Naser Almhawish, Sophie Maes and Alaa AbouZeid

Lancet, 390: 2278-2286 (2017) IF: 47.831

Background Collecting credible data on violence against health services, health workers, and patients in war zones is a massive challenge, but crucial to understanding the extent to which international humanitarian law is being breached. We describe a new system used mainly in areas of Syria with a substantial presence of armed opposition groups since November, 2015, to detect and verify attacks on health-care services and describe their e ect.**Methods** All Turkey health cluster organisations with a physical presence in Syria, either through deployed and locally employed sta , were asked to participate in the Monitoring Violence against Health Care (MVH) alert network. The Turkey hub of the health cluster, a UN-activated humanitarian health coordination body, received alerts from health cluster partners via WhatsApp and an anonymised online data-entry tool. Field sta were asked to seek further information by interviewing victims and other witnesses when possible. The MVH data team triangulated alerts to identify individual events and distributed a preliminary ash update of key information (location, type of service, modality of attack, deaths, and casualties) to partners, WHO, United Nations O ce for the Coordination of Humanitarian A airs, and donors. The team also received and entered alerts from several large non-health cluster organisations (known as external partners, who do their own information-gathering and veri cation processes before sharing their information). Each incident was then assessed in a stringent process of information-matching. Attacks were deemed to be veri ed if they were reported by a minimum of one health cluster partner and one external partner, and the majority of the key datapoints matched. Alerts that did not meet this standard were deemed to be unveri ed. Results were tabulated to describe attack occurrence and impact, disaggregated where possible by age, sex, and location.Findings Between early November, 2015, and Dec 31 2016, 938 people were directly harmed in 402 incidents of violence against health care: 677 (72%) were wounded and 261 (28%) were killed. Most of the dead were adult males (68%), but the highest case fatality (39%) was seen in children aged younger than 5 years. 24% of attack victims were health workers. Around 44% of hospitals and 5% of all primary care clinics in mainly areas with a substantial presence of armed opposition groups experienced attacks. Aerial bombardment was the main form of attack. A third of health- care services were hit more than once. Services providing trauma care were attacked more than other services.Interpretation The data system used in this study addressed double-counting, reduced the e ect of potentially biased self-reports, and produced credible data from anonymous information. The MVH tool could be feasibly deployed in many

con ict areas. Reliable data are essential to show how far warring parties have strayed from international law protecting health care in con ict and to e ectively harness legal mechanisms to discourage future perpetrators.
Keywords: Attacks Health Care Syria.

350. Assessment of Health-Related Quality of Life in Egyptian Adolescents with Type 1 Diabetes: Dempu Survey.

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Journal Of Pediatric Endocrinology and Metabolism, 30 (3): 277-283 (2017) IF: 1.223

Background: Type 1 diabetes (T1D) is a serious chronicillness that imposes significant morbidity and mortalitywith a major impact on the quality of life (QoL) thatbecame a core issue in diabetes care. Understanding theeffect of diabetes on QoL is important for day-to-day clinicalmanagement and also for public health policy initiativesaiming at improving health outcomes for those withdiabetes. The objective of the study was to assess the QoLin adolescents with T1D and assess the applicability ofthe use of the "Quality of Life for Youth" questionnaire atthe Diabetes, Endocrine and Metabolism Pediatric Unit(DEMPU) clinic.**Methods:** One hundred and fifty adolescents (82 malesand 68 females) (10–18 years), with T1D of at least 1 years'duration, completed the questionnaire that evaluatedsymptoms related to diabetes, treatment, activities, parentissues, worries about diabetes and health perception.Higher scores indicated a more negative impact of diabetesand poorer QoL.**Results:** Males showed a significantly better mean QoLscore than females (p = 0.004). Different age groupsshowed different QoL scores (p = 0.047). Urban adolescentshad a better QoL than rural counterparts (p = 0.02).Adolescents with poor QoL had generally lower educationallevel (p = 0.02). Better metabolic control was associatedwith a better QoL (p = 0.01). However, duration ofdiabetes and body mass index (BMI) had no statisticallysignificant effect on QoL.**Conclusions:** QoL had a variable significant associationwith certain socio-demographic and clinical characteristicsof diabetics (sex, residence, educational level as wellas metabolic control).
Keywords: Adolescents; Quality Of Life (Qol); Type 1 Diabetes (T1d)

351. Health Problems Among Street Children Seeking Care in the Center For Social and Preventive Medicine In Egypt

Hoda Ibrahim Rizk, Nihal Mohamed El Rifai and Hana Mohamed Aboulghar

World Journal Of Pediatrics, 13(5): 503-507 (2017) IF: 1.164

Background: In Egypt, around 1 million children areon the streets. Street children's health is an issue that isnot well researched. The objective of the current studywas to determine the health problems of a targeted groupof street children seeking medical care and to generatea hypothesis about the positive/negative role of streetchildren care organizations.**Methods:** A cross-sectional study was done on 2169street children who sought medical care at El-Basma clinicat the Center for Social and Preventive Medicine in CairoUniversity Children Hospital from January 2011 to July2014.**Results:** Respiratory illnesses and skin problems werethe most prevalent conditions, affecting 485 (22.4%) and 359(16.6%) of the patients, respectively. Psychological issues andtrauma were signifi cantly higher among the adolescent group.Respiratory and gastrointestinal problems were signifi cantlyhigher among children aged less than 2 years. Genital andcardiac problems were significantly higher among thosereferred from organizations whereas trauma was signifi cantlyhigher among those coming directly from the streets. Asignificant proportion of children at the extremes of thestudied age spectrum were coming directly from the streets.Sexually transmitted infections were rare problems.**Conclusions:** Respiratory and skin diseases were themajor morbidity problems among street children, especiallyadolescent males. Organizations afforded opportunities foraccess to different health care services
Keywords: Health Problems;Street Children.

352. Surveillance of Communicable Diseases for Decision-Making in Egypt: 2006–2013

Madiha S.M. Abdel-Razik , Hoda I.I. Rizk and Mahmoud H.M. Hassan

Eastern Mediterranean Health Journal, 23: 395-403 (2017) IF: 0.628

The Egyptian Ministry of Health and Population surveillance system provides data about notifiable communicable diseases. This study aimed to provide information for decision-making to reduce the burden of communicable diseases in Egypt by analysis of the surveillance data for 2006–2013 to identify trends in the incidence of the diseases by governorate, season, age and sex. Composite risk-index scores were estimated to rank the 27 Egyptian governorates into 3 groups: high, medium and low risk. The 15 diseases with the highest incidence were food and waterborne diseases (5 diseases), vaccine-preventable diseases (7 diseases) and others, e.g. hepatitis C infection. Bloody diarrhoea and typhoid had the high incidence for 2006–2013. There were 11 high-risk governorates; Ismailia had the highest risk-index score. The findings suggest the need for specific interventions related to environmental sanitation and improving the childhood immunization programme, particularly in the high-risk governorates.
Keywords: Communicable Diseases Surveillance Report;Composite Risk Index;Incidence;Egypt;Decision Making.

353. Perceived Risk of Cervical Cancer And Barriers to Screening Among Secondary School Female Teachers in Al Hassa, Saudi

Marwa Rashad Salem, Tarek Tawfik Amin, Abdulhamid Abdulrahman Alhulaybi Abdulaziz Sami Althafar and Rehab Ahmed Abdelhai

Asian Pacific Journal Of Cancer Prevention, 4: 969-979 (2017)

Background: No previous studies had addressed the perceived risk of cervical cancer (CC) and its influence on screening practices and perceived barriers in Saudi Arabia. **Methods:** This cross-sectional study was conducted on 506 randomly selected Saudi female secondary school teachers in Al Hassa, Saudi

Arabia to assess their level of knowledge about risk factors and signs of CC in relation to perceived risk and to characterize CC screening compliance using a self-administered questionnaire. **Results:** Of the included female Saudi teachers, 65.4% and 63.4% were considered less-knowledgeable about CC risk factors and early signs and symptoms respectively. Only 17.2% reported being previously examined for CC. The majority of participants perceived themselves to be at an average or below average risk of CC. Residing in urban areas was the strongest predictor of CC screening (Odds ratio 'OR'= 3.39; 95% confidence intervals 'CI= 1.76-6.46; P=0.001). Awareness of risk factors was significantly associated with higher awareness of signs of CC (OR 2.5; 95% CI=, P=0.001). Exploratory factor analysis showed that personal fears (of screening being embarrassing) was the major factor that hindered CC screening with a high loading eigenvalue of 4.392, explaining 30.8% of the barriers toward utilization, followed by health care related factors. **Conclusion:** Secondary school teachers in Al Hassa, Saudi Arabia showed low perceived risk, poor awareness about risk factors, signs and symptoms of CC and limited uptake of screening practices. This underlines the need for education programs on CC targeting this group.

Keywords: Cancer Cervix;Screening;Barriers;Perceived Risk;Saudi Arabia .

354. Prevalence and Correlates of Substance Use by Egyptian School Youth

Christopher A. Loffredo, Yousri Edward Shaker, Irene A. Jillson, Dina N.K. Boulos, Doaa A. Saleh, Magdy Garas, MarJan Ostrowski, Xiaoyang Sun, Xiaofei Chen, Benjamin Shander and Sania Amr

The International Journal Of Alcohol and Drug Research, 6: 37-51 (2017)

Aims: Substance use among Egyptian youth is an emerging public health problem, yet there is a paucity of information on the prevalence and correlates of these behaviors. To address this gap, we conducted surveys at 25 schools in Egypt in 2013 and 2014.**Design:** We calculated associations between substance use prevalence and age, gender, residence area, living arrangement, and employment status, along with adjusted odds ratio (OR) and 95% confidence intervals (CI).**Setting:** Cairo region and southern Egypt.Participants: School youth ages 12-18 (N=1,415).**Measures:** Self-administered survey on the use of cigarettes, waterpipes, alcohol, hashish, bango, heroin, Tramadol, other oral medications, injected substances, and glue/petrol sniffing; together with the amount and frequency of each substance used and age at initiation, in addition to demographic characteristics.**Findings:** Seventy-two percent of participants were male. Tobacco and cannabinoids were the most commonly used substances by both genders. Males reported smoking cigarettes (25%), waterpipes (15%), and hashish (6%), drinking alcohol (16%), and taking Tramadol (3%). Younger age (12–14 years) and residence outside of Cairo were somewhat protective. Among males, but not females, having a job increased the odds of smoking cigarettes (OR = 1.8, 95% CI [1.3, 2.6]), waterpipes (OR = 1.9, 95% CI [1.2, 2.9]), or hashish (OR = 2.0, 95% CI [1.1, 3.7]).**Conclusions:** These findings, consistent with reports from other countries, can inform the design and direct the resources of future public health programs targeting adolescents to prevent the onset of substance use and ultimately addiction in Egypt and elsewhere.

Keywords: Substance Use;Youth;Survey;Tobacco;Alcohol.

Dept. of Radiation

355. Prevalence of Subclinical Peripheral Vascular Disease in Obese Egyptian Patients

Jehan Ahmed Younes, Nahla Dessoki El-Sayed and Ayman Ismail Kamel

Indian Journal Of Nuclear Medicine, 32: 271-278 (2017)

Objective: To detect subclinical peripheralvascular disease in obese Egyptian patients andestablish relations between obesity, metabolic risk factors , andPVD . **Methods:** Thiswas a prospective case -control studyincluding 100 obese patients (BMI>30)(G1).In addition, 100age andsex matched non - obese healthy subject tsas acontrol group (G2). Both groupswere subjected to duplex ltrasound ,Radionuclide musclescan. Angio graphywasdonefor17patients .**Results:** Theimagepatternof 99 m Tc - MIBI musclesup takewasstudiedand perfusionreserve (PR%) was calculated in (G1) and (G2). Comparison between the two groupsshowed statistically significant difference (P<0.001) as regardin glaboratory findings. Patientswere categorized according to PR% into + ve for ischemia (meanPR% was28.4 ± 20.3)and-ve for is chemia (mean PR%was65.0±11.4).Among (G1) 64 patientspositive for ischemia by both PR% and Doppler ,36 patientswere negativeby Doppler and 22 of the mwere positive for is chemia by PR%.An geography was done for 17of the mandprovedis chemiainall of them. **Conclusion:** TheTc-99 msestamibimusclesc an can be usedasa screening and diagnostic tool of pre clinical atheros clerosisinobese patients

Keywords: Obesity;Metabolic Syndrome;Peripheral Vascular Disease.

Dept. of Rheumatology

356. Influence of Geolocation and Ethnicity on the Phenotypic Expression of Primary Sjögren's Syndrome at Diagnosis in 8310 Patients: A Cross-Sectional Study from the Big Data Sjögren Project Consortium.

Tamer Mohamed Atef Mostafa Gheita

Annals Of The Rheumatic Diseases, 76: 1042-1050 (2017) IF: 12.811

Objectives: To analyse the influence of geolocation and ethnicity on the clinical presentation of primary Sjögren's syndrome (SjS) at diagnosis.**Methods:** The Big Data Sjögren Project Consortium is an international, multicentre registry designed in 2014. By January 2016, 20 centres from five continents were participating. Multivariable logistic regression analyses were performed.**Results:** We included 7748 women (93%) and 562 men (7%), with a mean age at diagnosis of primary SjS of 53 years. Ethnicity data were available for 7884 patients (95%): 6174 patients (78%) were white, 1066 patients (14%) were Asian, 393 patients (5%) were Hispanic, 104 patients (1%) were black/African-American and 147 patients (2%) were of other ethnicities. SjS was diagnosed a mean of 7 years earlier in black/African-American compared with white patients; the female-to-male ratio was highest in Asian patients (27:1) and lowest in black/African-American patients (7:1); the prevalence

of sicca symptoms was lowest in Asian patients; a higher frequency of positive salivary biopsy was found in Hispanic and white patients. A north-south gradient was found with respect to a lower frequency of ocular involvement in northern countries for dry eyes and abnormal ocular tests in Europe (OR 0.46 and 0.44, respectively) and Asia (OR 0.18 and 0.49, respectively) compared with southern countries. Higher frequencies of antinuclear antibodies (ANAs) were reported in northern countries in America (OR=1.48) and Asia (OR=3.80) while, in Europe, northern countries had lowest frequencies of ANAs (OR=0.67) and Ro/La (OR=0.69).**Conclusions:**This study provides the first evidence of a strong influence of geolocation and ethnicity on the phenotype of primary SjS at diagnosis.

Keywords: Autoimmune Diseases; Autoimmunity; Epidemiology; Sjøgren's Syndrome

357. Premature Atherosclerosis in Systemic Sclerosis Patients: its Relation to Disease Parameters and to Traditional Risk Factors

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International Journal Of Rheumatic Diseases, 20: 383-389 (2017) IF: 2.624

Aim: To detect premature atherosclerosis in systemic sclerosis (SSc) patients and its relation to disease parameters and traditional risk factors.Method: This study included 40 SSc patients and 40 healthy age and sex matched controls. All patients were subjected to full history taking, clinical examination, relevant laboratory and radiological investigations. Doppler ultrasonography (US) of the common carotid was performed to measure intima-media thickness (ccIMT) and Doppler US of the brachial artery was performed to measure flow mediated dilatation (FMD).Results: The mean value of ccIMT was 0.59 ± 0.2 mm in SSc patients and 0.51 ± 0.09 mm in controls and the difference was significant (P = 0.03). A statistically significant difference was found in mean brachial artery diameter before and after hyperemia, in flow change and in FMD between SSc patients and controls. ccIMT showed significant positive correlation with age, C-reactive protein (CRP), cholesterol, triglycerides and low density lipoprotein (P < 0.05). FMD showed significant positive correlation with daily dose of steroids (P = 0.04). Brachial artery diameter after hyperemia showed significant negative correlation with erythrocyte sedimentation rate (ESR). Peak systolic velocity before ischemia showed significant positive correlation with body mass index (BMI) and significant negative correlation with insulin level.Conclusion: Our findings confirm the presence of premature atherosclerosis in SSc patients assessed by significant impairment of FMD, flow change and ccIMT, and it is associated with traditional cardiovascular risk factors such as age, dyslipidemia and obesity (BMI) as well as with the use of steroids and markers of inflammation such as CRP and ESR.

Keywords: Arterial Wall Stiffness;Atherosclerosis;Systemic Sclerosis.

358. Diminished Soluble Levels of Growth Arrest Specific Protein 6 and Tyrosine Kinase Receptor Axl in Patients with Rheumatoid Arthritis

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International Journal Of Rheumatic Diseases, 20(1): 53-59 (2017) IF: 2.624

AIM: Growth arrest specific protein 6 (Gas-6) and its tyrosine kinase receptor Axl plays an important role in apoptosis, and regulation of innate immune response, therefore, we investigated their plasma concentrations in Rheumatoid arthritis (RA) patients and correlated them to clinical, laboratory and radiological parameters of the disease.**Methods:**Plasma from 77 RA patients and 50 normal healthy subjects were assayed for plasma Gas6 and Axl levels. Demographic, clinical and serological data were prospectively assessed. Rheumatoid arthritis disease activity was assessed using 28-joint Disease Activity Score (DAS-28) and functional capacity by modified health assessment questionnaire (mHAQ). Standardized x-rays for hands and feet were done to all participants.**Results:**The level of Gas6 and Axl were significantly decreased in the RA patients compared to those of the healthy control subjects. Levels of Gas6 correlated positively with Axl levels in both patients and healthy control. Gas6 levels were remarkably reduced in those patients with erosive RA than those without. Levels of Gas6 were found to be negatively correlated with the presence of erosive disease and positively correlated with DAS-28, ESR, Leucocytosis and IL6.**Conclusion:**The plasma concentrations of Gas6 and Axl are altered in RA patients and thus may have a role in RA pathogenesis. Further mechanistic studies on the involvement of all TAM receptors tyrosine kinases pathway in RA are needed to help in understanding the pathogenesis and possibly aid in diagnosis and future treatments of RA especially for patients with erosive disease

Keywords: Axl;Apoptosis;Growth Arrest-Specific Protein 6;Inflammation;Receptor Tyrosine Kinase;Rheumatoid Arthritis.

359. Impact of Secondhand Smoking on Disease Activity in Women with Rheumatoid Arthritis.

Hammam N and Gheita TA.

Clinical Rheumatology, 36: 2415-2420 (2017) IF: 2.365

Smoking is an established risk factor for the development and severity of rheumatoid arthritis (RA) with prominent production of cytokines. The aim of the work was to study the possible effect of secondhand exposure on disease activity in non-smoking female RA patients. This cross-sectional study include 100 women with RA attending the rheumatology outpatient clinic and were grouped according to the non-smoking status into those not exposed to smoking and those considered secondhand smokers (SHS). Disease activity score in 28 joints (DAS28) was calculated and the patients' global assessment (PGA) score were assessed. The mean age of the patients was 45.2 ± 12.1 years and disease duration was 8.3 ± 6 years. Their DAS28 score was 4.3 ± 0.93 with a PGA score of 1.47 ± 1.36. Forty-seven of the patients were SHS and 53 were non-exposed. The secondhand smokers were significantly younger (41.6 ± 11.7 years) than the non-smokers (48.3 ± 11.6 years) (p = 0.005), and the DAS28 was significantly higher (4.6 ± 0.84 versus 4.1 ± 0.97; p = 0.02) compared to non-smokers. The disease duration and medications received were comparable. There is evidence pointing to the important role of secondhand smoking on disease activity in RA female patients. Studying the effect of secondhand smoking in view of the cytokine milieu could help confirm the relation to the disease

pathogenesis. Taking into consideration the risk of cardiovascular disease and interplay with other potential factors should be well thought of. It is essential to draw patients' attention to the expected hazardous effect of passive smoking.
Keywords: Disease Activity;Rheumatoid Arthritis;Smoking.

360. Tumor Necrosis Factor-A -308 A/G Gene Polymorphism in Children with Juvenile Idiopathic Arthritis: Relation to Disease Activity, Damage, and Functional Status

El Gazzar II, Fathy HM, Gheita TA, Nour El-Din AM, Rasheed EA, Bassyouni RH and Kenawy SA

Clinical Rheumatology, 36: 1757-1763 (2017) IF: 2.365

The study aims to evaluate the clinical significance of serum levels of tumor necrosis factor alpha (TNF-α) and -308 A/G promoter polymorphism in juvenile idiopathic arthritis (JIA) patients and find any association to the subsets, clinical and laboratory features, disease activity, and damage as well as functional disability. Forty-eight JIA children and 30 controls were included in the present study. Juvenile arthritis disease activity score in 27 joints (JADAS-27) was calculated, juvenile arthritis damage index (JADI) was assessed, and Childhood Health Assessment Questionnaire (CHAQ) measured the functional status. Serum TNF-α was assayed by ELISA and gene (-308) promoter polymorphism was determined by polymerase chain reaction. The 48 JIA children (mean age 11.5 ± 2.8 years) were 13 systemic, 17 oligoarticular, and 18 polyarticular onset. The serum TNF-α was significantly higher in patients (90.4 ± 6.3 ng/ml) compared to control (3.5 ± 2.6 ng/ml) ($p < 0.0001$) with a tendency to be higher in the polyarticular subtype. All controls had TNF-α -308 GG alleles. The frequency of GG genotype tended to be higher in systemic onset compared to oligoarticular and polyarticular subtypes. The serum TNF-α significantly correlated with JADAS-27 ($r = 0.32$, $p = 0.03$) and CHAQ ($r = 0.37$, $p = 0.01$) and negatively with the presence of GG alleles ($r = -0.48$, $p = 0.001$). The GG alleles were significantly negatively associated with C-reactive protein ($r = -0.32$, $p = 0.03$) with a tendency to negatively correlate with JADAS-27, CHAQ, and JADI-extrarticular ($r = -0.28$, $p = 0.06$; $r = -0.25$, $p = 0.09$ and $r = -0.25$, $p = 0.09$, respectively). There is evidence of a possible influence of the -308 SNP promoter position on the production of TNF-α, the severity of JIA which may consequently influence the response to anti-TNF-α treatment.
Keywords: 308 A/G Gene Polymorphism;Chaq;Jadas-27;Jadi;Jia;Tnf-A.

361. Comparison Between Different Disease Activity Scores in Rheumatoid Arthritis: an Egyptian Multicenter Study

M. Eissa, A. El Shafey and M. Hammad

Clinical Rheumatology, 36: 2217-2224 (2017) IF: 2.365

The aim of our work was to assess the performance of different Disease Activity Score (DAS) other than DAS-ESR in daily clinical practice in our Egyptian outpatient clinics and also to evaluate the accuracy of European League Against Rheumatism Classification (EULAR) proposed cutoffs for these scores to stratify Egyptian patients into different categories of disease activity. This study is a cross-sectional Egyptian multicenter study. It included 130 rheumatoid arthritis (RA) patients who visited our Rheumatology and Rehabilitation outpatient and inpatient clinics; 80 patients from Cairo University Hospitals and 50 patients from Zagazig University Hospitals. The patients fulfilled the 2010 American College of Rheumatology (ACR)/European League Against Rheumatism Classification criteria for rheumatoid arthritis. Disease Activity Score 28-ESR (DAS28-ESR), DAS28-CRP, Simplified Disease Activity Index (SDAI), and Clinical Disease Activity Index (CDAI) were calculated. A significant positive correlation was found between all three scores and morning stiffness, ESR, Modified Health Assessment Questionnaire (MHAQ), and DAS-ESR. Also, there was a significant negative correlation between DAS-CRP and hemoglobin and a significant positive correlation with CRP. Also, there was a highly significant moderate agreement between DAS-ESR and DAS-CRP using Fleischmann et al. thresholds and also between DAS-ESR and SDAI. While a highly significant fair agreement was found between DAS-ESR and DAS-CRP using DAS-ESR thresholds and between DAS-ESR and CDAI. We conclude that DAS-CRP, SDAI, and CDAI are very useful in representing disease activity in RA patients in our outpatient clinics being well correlated with many markers of disease activity. We recommend huge multicenter studies in Egypt and in different populations to define new cutoff values to optimize their use in clinical setting.
Keywords: Disease Activity Rheumatoid Arthritis

362. Clinical Association of A Soluble Triggering Receptor Expressed on Myeloid Cells-1 (Strem-1) in Patients with Systemic Lupus Erythematosus

Iman H. Bassyouni, Samar Fawzi, Tamer A. Gheita, Rasha H. Bassyouni, Aml S. Nasr, Samah A. El Bakry and Naglaa Afifi

Immunological Investigations, 46(1): 38-47 (2017) IF: 1.824

A triggering receptor expressed on myeloid cells-1 (TREM-1) is a member of the immunoglobulin superfamily with an established role in innate and adaptive immune response. We aimed to determine the plasma concentrations and clinical association of sTREM-1 in Systemic Lupus Erythematosus (SLE) patients. Plasma from 79 SLE patients and 35 normal healthy subjects were assayed for sTREM-1 and IL-6 levels using Enzyme Linked Immunosorbant Assay (ELISA). The clinical disease characteristics and serological data were prospectively assessed. Disease activity was scored using the SLE disease activity index. We detected significantly higher levels of sTREM-1 in plasma of SLE patients than the healthy control group. We also detected high sTREM-1 levels in subgroups of patients with neuropsychiatric manifestations (NPLE) and patients with the total high disease activity and NPLE activity. In addition, sTREM-l levels were significantly correlated with parameters of disease activity, i.e. SLEDAI score, IL-6, hypoalbuminemia. On the other hand, we did not find significant differences in sTREM-1 levels in relation to age, disease duration, medications, ESR, other organ system involvement, or the presence of anti-dsDNA. Our preliminary data indicated that sTREM-1 levels may be an additional useful marker of disease activity in SLE. It also highlights its importance in patients with NPLE. An additional prospective longitudinal study should be carried out to support these findings.

Keywords: Neuropsychiatric Lupus;Systemic Lupus Erythematosus;Triggering Receptor Expressed On Myeloid Cells-

363. Matrix Metalloproteinase-9 Rs17576 Gene Polymorphism and Behçets Disease: is There an Association?

Asmaa Kamal, Fatema T. Elgengehy, Mohamed Momtaz Abd Elaziz, Sherif M. Gamal, Nesreen Sobhy, Amira Medhat and Al Hussein M. El Dakrony

Immunological Investigations, 46(5): 460-468 (2017) IF: 1.824

Background: Clinical studies have reported a significant association between matrix metalloproteinases (MMP), particularly (MMP-9), and inflammatory diseases including Behçet's disease (BD).**Purpose:**To study the relationship between MMP-9 rs17576 gene polymorphism and the development of BD, and its relation to disease activity among Egyptian patients.METHODS:A total of 100 BD patients and 100 healthy control volunteers were genotyped for MMP-9 rs17576 polymorphism with polymerase chain reaction-restriction fragment length polymorphism (PCR-RFLP), followed by the confirmation of our results in random subgroups using direct DNA sequencing technique.**Results:**The frequency of the GG genotype and G allele was significantly higher in BD patients as compared to the normal controls (p = 0.011, OR 8.61; p = 0.03, OR 1.65, respectively). There was no significant association between the MMP-9 rs17576 polymorphism and the clinical outcomes of BD.**Conclusion:**our study suggests a significant association of the MMP-9 rs17576 A/G polymorphism with increased risk of BD development in Egyptian patients.
Keywords: Behçet'S Disease;Mmp-9 Rs17576;Gene Polymorphism;Matrix Metalloproteinase.

364. Growth Differentiation Factor-15 (Gdf-15) Level And Relation to Clinical Manifestations in Egyptian Systemic Sclerosis Patients: Preliminary Data.

Sherif M. Gamal, Fatema T. Elgengehy, Asmaa Kamal, Samah A. El Bakry, Elham Shabaan, Aliaa Elgendy and Iman H. Bassyouni

Immunological Investigations, 46(7): 703-713 (2017) IF: 1.824

Aim of the work: This study aims to assess Growth differentiation factor-15 (GDF-15) level in Scleroderma patients and its relation to disease manifestations.**Patients and Methods:**This study included 55 scleroderma patients and 40 age and sex matched healthy volunteers. All patients were subjected to full history taking, thorough clinical examination, and laboratory investigations. GDF-15 serum levels were analyzed in patients and controls using human GDF-15 immunoassay Quantikine ELISA kit.**Results:**The GDF-15 serum level was significantly higher in Systemic sclerosis (SSc) patients in comparison to healthy control individuals, p-value = 0.004. In addition, the GDF-15 serum levels increased in a significant way in patients with diffuse SSc than those with limited SSc, p = 0.026. Also, we had discovered a significant positive correlation between serum GDF-15 levels and the modified Rodnan score of the SSc patients, r = 0.442, p = 0.001 and a significant association was found between high GDF-15 level and SSc patients with interstitial pulmonary fibrosis (IPF) as compared to healthy controls (p = 0.002). However, no significant difference was found between SSc patients without IPF and healthy subjects regarding GDF-15 level (p = 0.106).**Conclusion:**GDF-15 serum levels were elevated in patients with SSc and correlated with the extent of skin fibrosis, and it was found to be higher in SSc patients with IPF. Such results may suggest a pivotal role of GDF-15 in fibrotic changes in SSc, and GDF-15 could be a treatment target in SSc patients in future.
Keywords: Egyptian Patients;Gdf-15;Systemic Sclerosis.

365. Vascular Endothelial Growth Factor G1612a (Rs10434) Gene Polymorphism and Neuropsychiatric Manifestations in Systemic Lupus Erythematosus Patients.

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Revista Brasileria De Reumatologia, 57: 149-153 (2017) IF: 1

AIM: To investigate the relation between vascular endothelial growth factor (VEGF) gene polymorphism in systemic lupus erythematosus (SLE) patients and lupus related neuropsychiatric manifestations.**Patients and Methods:**Sixty adult SLE patients recruited from the Rheumatology and Neurology departments of Cairo University hospitals were classified into two groups; Group A: 30 patients with neuropsychiatric manifestations (NPSLE) and Group B: 30 patients without. For both groups the SNP G1612A (rs10434) of the VEGF gene was genotyped by real time polymerase chain reaction (RT-PCR).RESULTS:Statistically significant difference was found in genotype and allele frequencies between both groups (AA [70% vs 13.3%, p<0.001] and GG [10% vs 66.7%, p<0.001]).**Conclusion:**Polymorphism in the gene coding for VEGF may be associated with increased incidence of neuropsychiatric lupus in SLE patients.
Keywords: Sle;Vegf;G1612a (Rs10434) Gene;Polymorphism;Neuropsychiatric Manifestations.

366. Clinical Significance of Lipid Profile in Systemic Lupus Erythematosus Patients: Relation to Disease Activity and Therapeutic Potential of Drugs

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Egyptian Rheumatologist, 39: 93-98 (2017)

Aim of the work: To study the lipid profile in systemic lupus erythematosus (SLE) patients and correlate it with disease activity parameters. The effect of hydroxychloroquine (HCQ), steroids and azathioprine on the lipid profile was also determined. **Patients and methods:** The study included 48 female SLE patients. Total cholesterol, triglycerides and high density lipoprotein cholesterol (HDL-C) were measured in plasma. Low density lipoprotein cholesterol (LDL-C) and very low density lipoprotein cholesterol (VLDL) were calculated. Disease activity was assessed using the systemic lupus activity measure (SLAM). **Results:** The mean age of the patients was 25.7 ± 7 years. Hypercholesterolemia was present in 23 (47.9%) patients and hypertriglyceridemia in 16 (33.3%). There was no significant difference in the lipid profile of SLE patients receiving 200 or 400 mg/day HCQ. No significant difference in the lipid profile was found among patients who did not receive steroids, those

who received 10 mg/day and those who received >10 mg/day. A significant difference in cholesterol and LDL-C level was present between SLE patients with (243.1 ± 84.3 mg/dl and 166.1 ± 65.7 mg/dl) and without (192.7 ± 50.6 mg/dl and 115.7 ± 44.4 mg/dl) lupus nephritis (LN) (p = 0.01, p = 0.002 respectively). SLAM significantly correlated with triglycerides and VLDL and negatively with HCQ intake (r = 0.3, p = 0.04). **Conclusion:** Disease activity of SLE patients affects the lipid level and its control can be helpful in treatment strategies. The use of HCQ through its reduction of disease activity added to low dose steroids may reduce the lipid profile of SLE patients. Control of hyerlipidemia can favourably affect SLE renal disease
Keywords: Sle;Slam;Hyperlipidemia;Antimalarials;Steroids.

367. Immunological Profile and Dyslipidemia in Egyptian Systemic Lupus Erythematosus Patients

Sherif M. Gamal , Samar M. Fawzy , Marwa Abdo , Fatema T. Elgengehy , Shada Ghoniem and Alkhateeb Alkemry

Egyptian Rheumatologist, 39(2): 89-92 (2017)

Aim of the work: To study the relation of the immune profile to dyslipidemia in a cohortof Egyptian Systemic Lupus Erythematosus (SLE) patients.Patients and methods: This study included 221 SLE patients with a disease duration >6 months at study entry. Disease activity was assessed using the SLE Disease Activity Index (SLEDAI) and severity using the Systemic Lupus International Collaborating Clinics/Damage Index (SLICC/DI). Patients were investigated for the anti-nuclear antibody (ANA), anti-double stranded deoxyribonucleic acid (anti-dsDNA), anti-cardiolipin (ACL) antibodies (IgG and IgM), anti Ro (SSA) and anti La (SSB). Dyslipidemia was considered if the high density lipoproteins (HDL), low density lipoproteins (LDL), total cholesterol (TC) or triglycerides (TG) were abnormal.Results: The mean age of the patients was 28.8 ± 7.8 years and the median disease duration was 5 years. The clinical manifestations of the patients were pleurisy (52.9%), pericarditis (24.9%),nephritis (68.3%), CNS lupus (23.1%), vasculitis (14.9%) and musculoskeletal manifestations (57.9%). All patients were on corticosteroids (median dose 35 mg/day; range 5–80 mg/day), while 92 (43.4%) of them received cyclophosphamide during their disease course. The mean SLEDAI was 12.1 ± 7.4 and SLICC/DI was 1.4 ± 1.6. Patients with positive anti-Ro (n = 44; 19.9%) showed statistically significant lower level of HDL (p = 0.01).Conclusion: Positive anti-Ro may be associated with increased incidence of low HDL in lupuspatients which in turn may increase the incidence of cardiovascular accidents.
Keywords: Immune Profile;Anti-Ro;Dyslipidemia;Sle;Sledai.

368. Urinary and Tissue Monocyte Chemoattractant Protein1 (Mcp1) in Lupus Nephritis Patients

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Egyptian Rheumatologist, 39: 145-150 (2017)

Aim of the work: To assess the role of urinary and tissue monocyte chemoattractant protein-1 (MCP-1) in active lupus nephritis (LN) and to correlate the levels with disease activity and renal status.**Patients and methods:**Urinary and tissue MCP-1 were determined in 42 systemic lupus erythematosus (SLE) patients with LN. 20 matched controls were considered. SLE disease activity index (SLEDAI) was recorded in all patients. Urinary and renal tissue MCP-1 was evaluated. Renal biopsy was performed in active LN patients for histopathological classification and correlation.**Results:**22 active LN patients (22.8 ± 4.7 years old) and 20 inactive (24.6 ± 4.3 years old) were studied. They were 39 female and 3 males (F:M 13:1). The urinary MCP-1 was significantly higher in active LN patients (1072.8 ± 658.4 pg/mg creatinine) compared to the inactive group (151.3 ± 103.5 pg/mg creatinine) and both were significantly higher than the level in the controls (19 ± 17.8 pg/mg creatinine) (p < 0.001). A significant correlation was present in the active LN patients between urinary MCP-1 level and proteinuria, anti-dsDNA, renal SLEDAI and biopsy activity index and negatively with C3 and C4. There was a significant correlation of the glomerular MCP-1 renal tissue expression score with the renal SLEDAI, anti-dsDNA, biopsy activity index and urinary MCP-1 and negatively with C3. Tubulointerstitial MCP-1 score significantly correlated with urinary MCP-1. Urinary, glomerular and tubular MCP-1 showed a sensitivity of 97%, 64% and 4% and specificity of 100%, 95% and 20% respectively in detecting LN.**Conclusion:**MCP-1 could be a valuable marker for LN and disease activity.
Keywords: Systemic Lupus Erythematosus;Lupus Nephritis;Urinary Monocyte Chemoattractant Protein;Renal Biopsy;Immunohistochemistry.

369. Atherosclerosis Biomarkers in Female Systemic Lupus Erythematosus Patients with and Without Cardiovascular Diseases

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Egyptian Rheumatologist, 39: 7-12 (2017)

Background: Cardiovascular diseases (CVD) and atherosclerosis are over presented in patients with systemic lupus erythematosus (SLE).Aim of the work:The aim of this study is to determine the frequency of some atherosclerosis biomarkers in SLE patients with and without CVD compared with controls.**Patients and methods:**28 female SLE patients with a mean age of 30.1 ± 7.2 years and a history of CVD (SLE cases) were compared with 25 age matched SLE female patients but without a history of CVD (SLE controls) and 25 age matched population based control women (population controls). Intima, media thickness (IMT) was measured by B-mode ultrasound as a potential measure of atherosclerosis. Nontraditional biomarkers of atherosclerosis such as leptin, oxidized LDL (oxLDL) and homocysteine were also investigated.**Results:**SLE cases had significantly increased IMT compared with SLE controls and population controls (p < 0.001), whereas IMT of SLE controls did not differ from population controls. Compared to SLE controls, SLE cases had raised

circulating levels of leptin ($p < 0.001$), homocysteine, dyslipidemia with raised triglycerides ($p < 0.001$), decreased HDL-cholesterol concentration, ($p < 0.001$), lupus anticoagulants ($p = 0.01$), and higher cumulative prednisone dose ($p = 0.4$). Disease duration was comparable between the two SLE groups and the blood pressure and body mass index (BMI) were similar among the 3 groups.**Conclusion:**A set of distinct CVD risk factors (biomarkers of atherosclerosis) separate SLE cases from SLE controls and normal population controls. If confirmed in a prospective study, they could be used to identify SLE patients at high risk of CVD in order to optimize treatment.

Keywords: Cardiovascular Disease;Systemic Lupus Erythematosus;Homocysteine;Leptin.

370. Juvenile and Juvenile-Onset Systemic Lupus Erythematosus Patients: Clinical Characteristics, Disease Activity and Damage

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Egyptian Pediatric Association Gazette, 65: 49-53 (2017)

Background: The diagnosis of systemic lupus erythematosus (SLE) in children is challenging. The heterogeneousman if estations and disease impact on the child's growth highlight the importance of timely diagnosis and management. **Objective:** The aim of the work was to assess and compare the clinical characteristics, disease activity and damage between children with juvenile SLE (JSLE) and adult patients with juvenile-onset (JO-SLE). **Patients and methods:** 78 SLE patients; 26 children (JSLE) and 52 JO-SLE adults were included in this study.Disease activity was assessed using the SLE Disease Activity Index (SLEDAI) and organ damage using theSystemic Lupus International Collaborating Clinics (SLICC) index. **Results:** The mean age of the JSLE children was 13.25 ± 2.09 years and 23.17 ± 4.26 years for JO-SLE cases. Age at disease-onset and female gender tended to be higher in JO-SLE cases than in children with JSLE.There was a significantly higher frequency of serositis, nephritis and hematological involvement in theJO-SLE (57.7%, 76.9%, 73.1%, respectively) compared to the JSLE cases (15.4%, 30.8%, 30.8%, respectively)($p < 0.001$ for all). The erythrocyte sedimentation rate, creatinine and proteinuria were significantlyincreased in JO-SLE while alkaline phosphatase was higher in JSLE cases. In JO-SLE cases, SLEDAI significantlyincreased (5.96 ± 6.18 vs 3.12 ± 1.97; $p = 0.003$) and the SLICC tended to increase compared to the JSLE children. More JO-SLE cases received hydroxychloroquine and azathioprine. **Conclusion:** The existence of differences in clinical phenotype has been confirmed, between JSLE and JOSLE especially as regards serositis, nephritis and heamatological affection. The disease damage was comparable which denotes that the maximum organ involvement occurs in childhood with an almost stationarycourse.

Keywords: Juvenile;Juvenile-Onset;Systemic Lupus Erythematosus;Disease Activity;Damage.

Dept. of Surgery

371. Evidence-Based Medicine: A Graded Approach to Lower Lid Blepharoplasty

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Plastic And Reconstructive Surgery, 139: 139-150 (2017) IF: 3.843

Learning Objectives: After studying this article, the participant should be able to: 1. Define the anatomy of the lower eyelid tarsoligamentous framework and the related periorbital retaining ligaments, and cite their surgical relevance. 2. Perform a systematic functional and aesthetic evaluation of the lower eyelid focusing on the lid-cheek junction, and clinical tests that predict the need for lateral canthal tightening. 3. Enumerate the different approaches to lower eyelid rejuvenation and discuss their merits/limitations. 4. Describe surgical strategies to blend the lid-cheek junction and tighten the lateral canthal retinaculum.

Summary: Modern lower lid blepharoplasty requires a thorough understanding of periorbital anatomy, age-related changes of the lid-cheek junction, and the variables controlling lower lid tone and position. The surgical strategies are best used in a graded fashion. The patient with isolated lower lid bags may be treated by transconjunctival fat resection alone. Additional mild skin laxity can be improved with skin pinch or skin-only undermining. Skin resurfacing using chemical peeling or laser can further address fine lines. In these patients with an abnormality of the lid-cheek junction, release of the medial orbicularis oculi muscle and variable amounts of the orbicularis retaining ligament is essential. This is combined with orbital fat resection or repositioning through a transconjunctival or transcutaneous skin-muscle flap. The transcutaneous approach most often necessitates lateral canthal tightening to optimize lid margin control. Generally, the degree of laxity dictates whether a canthopexy or a canthoplasty is most appropriate. Lateral canthal procedures can be applied to patients displaying clinical signs predictive of lid malposition and to those presenting with varying degrees of established lid descent.

Keywords: Lower Lid Blepharoplasty.

372. Resident and Program Director Perceptions of Aesthetic Training in Plastic Surgery Residency: An Update

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Aesthetic Surgery Journal, 37: 837-846 (2017) IF: 2.697

Background: This is the third survey exploring the quality of cosmetic training in plastic surgery residency. We focused on determining: (1) the applied modalities and extent of resident exposure; and (2) resident confidence in performing variable cosmetic procedures.**Objectives:**To analyze trends in resident exposure and confidence in aesthetic plastic surgery procedures from the standpoint of program directors (PDs) and residents.**Methods:**The survey was developed and e-mailed to 424 residents enrolled in the ASAPS Residents Program and 95 PDs. Both independent and integrated programs were included. The questions were posed in a five-point ranking format. Univariate statistical analysis was used to examine all aspects. The results were analyzed in relation to our previous surveys in

2008 and 2011.**Results:**Thirty-three PDs (34.7%) and 224 (52.8%) residents responded. Residents felt most confident with abdominoplasty, breast reduction, and augmentation-mammaplasty. Facial aesthetic procedures, especially rhinoplasty and facelift, were perceived as "challenging." The three most preferred modalities of aesthetic education were, in descending order, residents' clinic, staff cosmetic patients, and cadaver dissections. Both residents and PDs felt a need for more training especially in facial procedures. Only 31.5% of residents who planned to focus on cosmetic surgery felt ideally prepared integrating cosmetic surgery into their practice (compared to 50% in previous surveys).**Conclusions:**Despite improvements observed from 2008 to 2011 published surveys, there are still challenges to be met especially in facial cosmetic procedures. It is suggested that resident clinics and cadaver courses be universally adopted by all training programs.

Keywords: Esthetics Internship and Residency Surgical Procedures;Operative Medical Residencies Program Directors.

373. Gastric Tube Esophagoplasty for Pediatric Esophageal Replacement

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Journal Of Pediatric Surgery, 52: 657-662 (2017) IF: 1.976

Background: Esophageal replacement in children is indicated in cases of esophageal atresia with or without fistula, in case of long gap esophageal atresia or failed primary repair. Intractable post corrosive esophageal stricture is considered also a major indication for replacement.**Methods:**This is a cohort retrospective study of esophageal replacement cases by gastric tube carried out at the pediatric surgery department at Cairo University between 2011 and 2015. We reported 50 patients (30 boys and 20 girls); the ages ranged from 7 months to 9 years. Esophageal atresia cases were 27 while caustic esophageal stricture cases were 23. Isoperistaltic gastric tube technique was done in 45 patients while antiperistaltic (reversed) gastric tube technique was done in 5 cases. Retrosternal route was chosen in 38 patients while transhiatal route was chosen in 12 patients.**Results:**Leakage and stricture were the most common complications. We had 5 cases of mortality, which were caused mainly by chest related complications. We had excellent to good results during long term follow up in terms of weight gain, swallowing pattern, quality of life, and overall satisfaction **Conclusion:**Gastric tube is a satisfactory surgical method for esophageal replacement in children.Level of EvidenceIII.

Keywords: Esophageal Replacement;Esophageal Atresia;Caustic Esophageal Stricture;Gastric Tube Esophagoplasty.

374. Craniofacial Fibrous Dysplasia Retrospective Study on the Relationship Between the Tumor Volume Changes and the Circulating Serum Calcitonin and Serum Alkaline Phosphatase

Mohammed Ahmed Hussein, In Sik Yun, Bo Ok Kim and Yong Oock Kim

Annals Of Plastic Surgery, 78: 289-293 (2017) IF: 1.596

Background: The purpose of this study was to determine the usefulness of serum alkaline phosphatase (ALP) and calcitonin in the follow-up of tumor volume changes in patients with craniofacial fibrous dysplasia.**Methods:**Twenty patients with isolated craniofacial fibrous dysplasia were included, who met our criteria for long-term follow-up. Three-dimensional computed tomography scans were obtained, and tumor segmentation was performed. The tumor volume was measured preoperatively, immediate postoperative and during long-term follow-up. Serum ALP and calcitonin levels were obtained at the same times to assess their correlation with tumor volumes.**Results:**Preoperative calcitonin levels were correlated with the presence of tumor (P = 0.0442), whereas ALP levels were not (P = 0.1125). There were no significant associations between tumor volume and ALP or calcitonin levels in the preoperative or postoperative periods. During long-term follow-up, serum ALP was significantly associated with tumor recurrence (P = 0.0096), but serum calcitonin was not (P = 0.4760). However, serum levels of ALP did not reflect the tumor volume changes.**Conclusions:**Serum ALP may be useful as a laboratory test for follow-up of patients with isolated craniofacial fibrous dysplasia. However, it cannot represent the tumor's volume changes and 3-dimensional computed tomography scans with tumor volume measurement are mandatory for detecting significant volume changes during follow-up. Investigation of the serum calcitonin in the preoperative period is also recommended on a large scale because it was related to the presence of the tumor.

Keywords: Craniofacial Fibrous Dysplasia;Alkaline Phosphatase;Calcitonin;Tumor Volume;Bone Segmentation.

375. Taeniectomy Pouch as Neorectum After Low Rectal Resection

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Annals Of The Royal College Of Surgeons Of England, Volume: 99 Issue: 7, September 2017: 555-558 (2017) IF: 1.35

Background and purpose: The functional outcomes of incontinence and high stool frequency resulting from restorative surgery are often criticised. The aim of this study was to assess the taeniectomy pouch in comparison with other pouches described in the literature.**Material and methods:**This was a prospective cohort study. All patients who were candidate for low rectal resection presenting to the colorectal unit at Cairo University hospitals during the period February 2013 to February 2015 were included in the study (90 patients). Safety and feasibility of the new technique were assessed, including operative time, leakage, postoperative urgency, incontinence, number of daily motions and difficulty in evacuation. These parameters were assessed clinically, by means of defecography and anorectal manometry.**Results:**The mean age of patients was 49.6 years. Percentages of postoperative mortality and leakage were 2.2% and 3.4%, respectively. Mean operative time was 117 minutes. Mean numbers of daily motions were 3.04 and 1.52 at 3 and 12 months, respectively. Mean Wexner score for continence at 3 and 12 months were 3.21 and 1.32, respectively. Mean resting pressure was 51.63 mmHg, squeeze pressure was 130.42 mmHg and mean threshold volume was 118.68 ml.**Conclusions:**Taeniectomy is a novel technique for pouch formation after low rectal resection, which can be used as an alternative to other pouches, especially the widely used transverse coloplasty.

Keywords: Taeniectomy;Pouch;Low Rectal Resection;Functional Outcomes.

376. Predictors of Mortality in Living Donor Liver Transplantation

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Transplantation Proceedings, 49: 1376-1382 (2017) IF: 0.908

Background. Egypt has the highest prevalence of the world hepatitis C virus (HCV) load.Hence, the problem of end-stage liver disease (ESLD) is considered a huge burden on the community. Living donor liver transplantation (LDLT) is the only source of donation inEgypt till now. Survival rates had shown significant improvement in the past decades.This study provides analysis of the mortality rates and possible predictors of mortality following LDLT. It also aids in developing a practical and easy-to-apply risk index for prediction of early mortality.Patients **and Methods.** This study is a retrospective study that was designed to analyze data from 128 adult patients with ESLD who underwent LDLT in the LiverTransplantation Unit at Faculty of Medicine, Cairo University. Early and late mortalitywere identified. All potential risk factors were tested using univariate regression forassociation with early and late mortality. Significant variables were then entered into a multivariable logistic regression model for identifying the predictors for mortality.Results. Sepsis was the most common cause of early mortality. Early mortality and 1-year mortality were 29 (23%) and 23 (18%), respectively. Model for End-Stage Liver Disease (MELD) score, intraoperative packed red blood corpuscles (RBCs), and duration of intensive care unit (ICU) stay were found to be independently associated with early mortality. **Conclusion.** A MELD score >20, intraoperative transfusion >8 units of packed RBCs,and ICU stay >9 days are three independent predictors of early mortality. Their incorporationinto a combined Risk Index can be used to improve outcomes of LDLT.

Keywords: Living Donor Liver Transplantation; Predictors; Mortality.

377. Cervical Spine Deformity in Long-Standing, Untreated Congenital Muscular Torticollis

Mohammed Ahmed Hussein, In Sik Yun, Hanna Park and Yong Oock Kim

Journal Of Craniofacial Surgery, 28: 46-50 (2017) IF: 0.788

Background: Congenital muscular torticollis (CMT) is a benign condition. With early diagnosis and appropriate management, it can be cured completely, leaving no residual deformity. However, long-standing, untreated CMT can lead to permanent craniofacial deformities and asymmetry.**Methods:**Four adult patients presented to the author with long-standing, untreated CMT. Initial clinical assessment demonstrated tightness of the sternocleidomastoid muscle on the affected side. Investigation of cervical spine using 3-dimensional computed tomography scans with cervical segmentation allowed a 3-dimensional module to be separately created for each vertebra to detect any anatomical changes.**Results:**A change in the axis of the vertebral column was noted when compared to that of the skull. Also, there were apparent anatomical changes affecting the vertebrae, which were most noticeable at the level of the atlas and axis vertebrae. These changes decreased gradually till reaching the seventh cervical vertebra, which appeared to be normal in all patients. The changes in the atlas vertebra were mostly due to its intimate relation with the skull base. The changes of the axis were the most significant, affecting mainly the superior articular facet, the lamina, and the body.**Conclusions:**There were seemingly permanent changes along the cervical spine region in the adult patients with long-standing, untreated CMT in the form of bending and rotation deformities that might result in residual torticollis postoperatively.

Keywords: Cervical Spine Deformities;Congenital Muscular Torticollis;Vertebral Segmentation.

378. Short- and Long-Term Outcomes After Pancreaticoduodenectomy Following Total Gastorectomy: Report of Case Series and Literature Review

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International Journal Of Surgery Case Reports, 30: 118-121 (2017)

Purpose: Pancreaticoduodenectomy (PD) following gastrectomy (TG) should be considered challenging even currently although its procedure and clinical value have been being standardized. Short- and long-term outcomes as well as standard reconstruction method following these procedures remain unclear. In order to clarify these issues, we reviewed worldwide English literature and 4 of our own cases of PD for patients with previous TG.**Methods:**Clinicopathological variables of 11 cases of PD for patients with previous TG were evaluated. Seven of these 11 were abstracted from a review of worldwide English literature and 4 of 11 were our own cases.**Results:**3 cases was reconstructed using Y-limb made in previous TG and afferent loop syndrome (ALS) was observed in 2 of 3, in these cases whereas no cases of ALS were found in cases reconstructed using newly-made Y-limb. In cases where PD was indicated for cancer, early cancer death, defined as death related to cancer recurrence observed within 2 years after PD, was observed in 6 of 9 cases. Notably in cases of pancreatic cancer recurrent cancer was diagnosed within 1 year after PD in 5 of 7 cases and 4 of these patients died of pancreatic cancer soon after recurrence.**Conclusion:**In cases of PD following TG, previously-made Y-limb should not be used for reconstruction following PD because of probable cause of previously-made Y-limb for ALS. Long-term outcomes of PD after TG seemed unsatisfactory notably in cases of pancreatic cancer and thus application of PD for patients with previous TG should be carefully decided until reasonable explanation for this dismal outcome is obtained.

Keywords: Pancreaticoduodenectomy;Total Gastrectomy;Afferent Loop Syndrome.

Dept. of Urology Dept

379. Prediction of Pediatric Percutaneous Nephrolithotomy Outcomes Using Contemporary Scoring Systems

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Journal Of Urology, 198 (5): 1146-1152 (2017) IF: 5.157

PurposeWe evaluate the applicability of contemporary percutaneous nephrolithotomy scoring systems in pediatric patients and compare their predictive power regarding postoperative outcomes .**Materials and Methods** We retrospectively analyzed the records of 125 children who were diagnosed with renal calculi and underwent percutaneous nephrolithotomy between March 2011 and April 2016. Predictive scores, which consisted of Guy's Stone Score, S.T.O.N.E. (stone size, tract length, obstruction, number of involved calyces and essence/stone density) nephrolithometry and CROES (Clinical Research Office of the Endourological Society) nomogram, were calculated for all patients included in the study. Patient demographics, stone-free rate and complications were all analyzed and are reported.**Results**Median Guy's Stone Score was 2 (IQR 2 to 3) in patients with residual stones (group 1) and 2 (1 to 2) in those who were stone-free (group 2). Median respective CROES nomogram scores were 215 (IQR 210 to 235) and 257 (240 to 264), and S.T.O.N.E. nephrolithometry scores were 8 (7 to 9) and 5 (5 to 6, all p <0.0001). S.T.O.N.E. score demonstrated the greatest accuracy in predicting stone-free rate. Guy's Stone Score was significantly correlated with complications but the CROES and S.T.O.N.E. scores were not significantly correlated with complications.**Conclusions**The scoring systems analyzed could be used to predict success of percutaneous nephrolithotomy in the pediatric setting. However, further studies are needed to formulate modifications for use in children. The main variables in the scoring systems, ie stone burden, tract length and case volume, were measured using records from adult patients. Besides these variables, the relatively small pelvicalyceal system and higher incidence of anatomical malformations in children could potentially affect percutaneous nephrolithotomy outcomes.
Keywords: Pediatrics; Nephrostomy; Percutaneous; Kidney Calculi; Treatment Outcome; Postoperative Complications

380. Natural History, Predictors and Management of Ureteroenteric Strictures After Robot Assisted Radical Cystectomy.

Ahmed YE, Hussein AA, May PR, Ahmad B, Ali T, Durrani A, Khan S, Kumar P and Guru KA

Journal Of Urology, 198: 567-574 (2017) IF: 5.157

Purpose: Ureteroenteric strictures represent the most common complication requiring reoperation after radical cystectomy. We investigated the prevalence, outcomes, predictors and management of ureteroenteric strictures.MATERIALS AND **Methods:**We retrospectively reviewed our quality assurance, robot assisted radical cystectomy database to identify patients in whom ureteroenteric strictures developed. Data were reviewed for demographics, perioperative outcomes and ureteroenteric stricture characteristics. The Kaplan-Meier method was used to calculate time to ureteroenteric stricture and multivariable stepwise regression was done to evaluate predictors of ureteroenteric strictures.**Results:**Ureteroenteric strictures developed in 12%, 16% and 19% of 51 patients (13%) at 1, 3 and 5 years after robot assisted radical cystectomy, respectively. All patients were initially treated endoscopically or percutaneously, including 57% treated only endoscopically or percutaneously and 43% who required surgery, which was open repair in 6 and robot assisted repair in 16. At a median followup of 23 months 33 patients (65%) were free of disease, including 13 after endoscopic or percutaneous treatment, 15 after robot assisted repair and 5 after open revision. Open and robot assisted revisions showed comparable perioperative outcomes. On multivariable analysis the predictors of ureteroenteric anastomotic strictures were body mass index (OR 1.07, 95% CI 1.01-1.13, p = 0.02), intracorporeal urinary diversion (OR 3.28, 95% CI 1.41-7.61, p = 0.006), length of the right resected ureter (OR 0.66, 95% CI 0.50-0.88, p = 0.004), estimated glomerular filtration rate 30 days after assisted radical cystectomy (OR 0.85, 95% CI 0.74-0.98, p = 0.03), urinary tract infection (OR 2.68, 95% CI 1.31-5.49, p = 0.007) and leakage (OR 3.85, 95% CI 1.05-14.1, p = 0.04). Male gender (OR 0.19, 95% CI 0.04-0.96, p = 0.04) and higher body mass index (OR 0.85, 95% CI 0.72-0.996, p = 0.05) were associated with lower odds of successful endoscopic management.**Conclusions:**Multiple modifiable factors were associated with ureteroenteric anastomotic strictures following robot assisted radical cystectomy. Surgical revision can provide a definitive management with comparable outcomes for open and robotic repairs.
Keywords: Constriction; Cystectomy; Pathologic; Robotics; Ureter;Urinary Bladder.

381. Early Oncologic Failure After Robot-Assisted Radical Cystectomy: Results from the International Robotic Cystectomy Consortium

Hussein AA, Saar M, May PR, Wijburg CJ, Richstone L, Wagner A, Wilson T, Yuh B, Redorta JP, Dasgupta P, Khan MS, Menon M, Peabody JO, Hosseini A, Gaboardi F, Mottrie A, Rha KH, Hemal A, Stockle M, Kelly J, Maatman TJ, Canda AE, Wiklund Pand Guru KA; Collaborators

Journal Of Urology, 197: 1427-1436 (2017) IF: 5.157

Purpose: We sought to investigate the prevalence and variables associated with early oncologic failure.**Materials and Methods:**We retrospectively reviewed the IRCC (International Radical Cystectomy Consortium) database of patients who underwent robot-assisted radical cystectomy since 2003. The final cohort comprised a total of 1,894 patients from 23 institutions in 11 countries. Early oncologic failure was defined as any disease relapse within 3 months of robot-assisted radical cystectomy. All institutions were surveyed for the pneumoperitoneum pressure used, breach of oncologic surgical principles, and techniques of specimen and lymph node removal. A multivariate model was fit to evaluate predictors of early oncologic failure. The Kaplan-Meier method was applied to depict disease specific and overall survival, and Cox proportional regression analysis was used to evaluate predictors of disease specific and overall survival.**Results:**A total of 305 patients (22%) experienced disease relapse, which was distant in 220 (16%), local recurrence in 154 (11%), peritoneal carcinomatosis in 17 (1%) and port site recurrence in 5 (0.4%). Early oncologic failure developed in 71 patients (5%) at a total of 10 institutions. The incidence of early oncologic failure decreased from 10% in 2006 to 6% in 2015. On multivariate analysis the presence of any complication (OR 2.87, 95% CI 1.38-5.96, p = 0.004), pT3 or greater disease (OR 3.73, 95% CI 2.00-6.97, p <0.001) and nodal involvement (OR 2.14, 95% CI 1.21-3.80, p = 0.008) was a significant predictor of early

oncologic failure. Patients with early oncologic failure demonstrated worse disease specific and overall survival (23% and 13%, respectively) at 1 and 3 years compared to patients who experienced later or no recurrences (log rank p <0.001).**Conclusions:**The incidence of early oncologic failure following robot-assisted radical cystectomy has decreased with time. Disease related rather than technical related factors have a major role in early oncologic failure after robot-assisted radical cystectomy.
Keywords: Cystectomy;Local;Neoplasm Recurrence;Robotic Surgical Procedures;Treatment Failure;Urinary Bladder Neoplasms.

382. Development and Validation of an Objective Scoring Tool for Robot-Assisted Radical Prostatectomy: Prostatectomy Assessment and Competency Evaluation

Hussein AA, Ghani KR, Peabody J, Sarle R, Abaza R, Eun D, Hu J, Fumo M, Lane B, Montgomery JS, Hinata N, Rooney D, Comstock B, Chan HK, Mane SS, Mohler JL, Wilding G, Miller D and Guru KA Michigan

Journal Of Urology, 197: 1237-1244 (2017) IF: 5.157

Purpose: Comprehensive training and skill acquisition by urological surgeons are vital to optimize surgical outcomes and patient safety. We sought to develop and validate PACE (Prostatectomy Assessment and Competence Evaluation), an objective and procedure specific tool to assess the quality of robot-assisted radical prostatectomy.
Materials and Methods: Development and content validation of PACE was performed by deconstructing robot-assisted radical prostatectomy into 7 key domains utilizing the Delphi methodology. Reliability and construct validation were then assessed using de-identified videos performed by practicing surgeons and fellows. Consensus for each domain was defined as achieving a content validity index of 0.75 or greater. Reliability was assessed by the intraclass correlation and construct validation using a mixed linear model accounting for multiple ratings on the same video.**Results:**After 3 rounds consensus was reached on wording, relevance of the skills assessed and concordance between the score assigned and the skill assessed. An intraclass correlation of 0.4 or greater was achieved for all domains. The expert group outperformed trainees in all domains but reached statistical significance in bladder drop (4.5 vs 3.4, p = 0.002), preparation of the prostate (4.4 vs 3.2, p <0.0001), seminal vesicle and posterior plane dissection (8.3 vs 6.8, p = 0.03), and neurovascular bundle preservation (4.1 vs 2.4, p <0.0001). Limitations included the lack of assessment of other key skills such as communication and decision making.**Conclusions:**PACE is a structured, procedure specific and reliable tool that objectively measures surgical performance during robot-assisted radical prostatectomy. It can differentiate different levels of expertise and provide structured feedback to customize training and surgical quality improvement.
Keywords: Credentialing;Professional Competence; Prostate; Prostatectomy;Robotics.

383. Development, Validation and Clinical Application of Pelvic Lymphadenectomy Assessment and Completion Evaluation: Intraoperative Assessment of Lymph Node Dissection After Robot-Assisted Radical Cystectomy for Bladder Cancer

Hussein AA, Hinata N, Dibaj S, May PR, Kozlowski JD, Abol-Enein H, Abaza R, Eun D, Khan MS, Mohler JL, Agarwal P, Pohar K, Sarle R, Boris R, Mane SS, Hutson A and Guru KA.

Bju International, 119: 879-884 (2017) IF: 4.439

Objectives: To develop a scoring tool, Pelvic Lymphadenectomy Appropriateness and Completion Evaluation (PLACE), to assess the intraoperative completeness and appropriateness of pelvic lymph node dissection (PLND) following robot-assisted radical cystectomy (RARC).PATIENTS, **Subjects and Methods:**A panel of 11 open and robotic surgeons developed the content and structure of PLACE. The PLND template was divided into three zones. In all, 21 de-identified videos of bilateral robot-assisted PLNDs were assessed by the 11 experts using PLACE to determine inter-rater reliability. Lymph node (LN) clearance was defined as the proportion of cleared LNs from all PLACE zones. We investigated the correlation between LN clearance and LN count. Then, we compared the LN count of 18 prospective PLNDs using PLACE with our retrospective series performed using the extended template (No PLACE).**Results:**A significant reliability was achieved for all PLACE zones among the 11 raters for the 21 bilateral PLND videos. The median (interquartile range) for LN clearance was 468 (431-545). There was a significant positive correlation between LN clearance and LN count (R2 = 0.70, P < 0.01). The PLACE group yielded similar LN counts when compared to the No PLACE group.**Conclusions:**Pelvic Lymphadenectomy Appropriateness and Completion Evaluation is a structured intraoperative scoring system that can be used intraoperatively to measure and quantify PLND for quality control and to facilitate training during RARC.
Keywords: Bladdercancer;Blcsm;Lymph Node Dissection;Lymphadenectomy;Quality;Radical Cystectomy; Robot-Assisted.

384. Robot-Assisted Approach to W Configuration Urinary Diversion: A Step-by-Step Technique.

Hussein AA, Ahmed YE, Kozlowski JD, May PR, Nyquist J, Sexton S, Curtin L, Peabody JO, Abol-Enein H and Guru KA

Bju International, 120: 152-157 (2017) IF: 4.439

Objective: To describe a detailed step-by-step approach of our technique for robot-assisted intracorporeal W-configuration orthotopic ileal neobladder.**Patients and Methods:**Five patients underwent robot-assisted radical cystectomy (RARC), extended pelvic lymph node dissection and intracorporeal neobladder (ICNB). ICNB was divided into six key steps to facilitate and enable a detailed analysis and auditing of the technique. No conversion to open surgery was required. Timing for each step was noted. All patients had at least 3 months of follow-up.**Results:**The mean age was 57 years. The mean overall console and diversion times were 357 and 193 min, respectively. None of the patients had any evidence of residual disease after RARC. Four of the five patients had complications; three developed fevers due to urinary tract infections (one required readmission), and one developed myocardial infarction and required coronary angiography and stenting. Looking at the timing for the individual steps, bowel detubularisation and construction of the posterior plate were consistently the longest among the key steps (average

46 min, 13% of the overall operative time), followed by ureteroileal anastomosis (37 min, 10%), neobladder-urethral anastomosis (23 min, 6%), and identification and fixation of the bowel (26 min, 7%).**Conclusion:**We described our step-by-step technique and initial perioperative outcomes of our first five ICNBs with W configuration.

Keywords: Hautmann; W-Configuration; Intracorporeal; Neobladder; Orthotopic Urinary Diversion; Robot-Assisted Radical Cystectomy

385.Development of A Patient and Institutional-Based Model for Estimation of Operative Times for Robot-Assisted Radical Cystectomy: Results from the International Robotic Cystectomy Consortium.

Hussein AA, May PR, Ahmed YE, Saar M, Wijburg CJ, Richstone L, Wagner A, Wilson T, Yuh B, Redorta JP, Dasgupta P, Kawa O, Khan MS, Menon M, Peabody JO, Hosseini A, Gaboardi F, Pini G, Schanne F, Mottrie A, Rha KH, Hemal A, Stockle M, Kelly J, Tan WS, Maatman TJ, Poulakis V, Kaouk J, Canda AE, Balbay Wiklund P and Guru KA

Bju International, 120: 695-701 (2017) IF: 4.439

Objectives: To design a methodology to predict operative times for robot-assisted radical cystectomy (RARC) based on variation in institutional, patient, and disease characteristics to help in operating room scheduling and quality control.PATIENTS AND **Methods:**The model included preoperative variables and therefore can be used for prediction of surgical times: institutional volume, age, gender, body mass index, American Society of Anesthesiologists score, history of prior surgery and radiation, clinical stage, neoadjuvant chemotherapy, type, technique of diversion, and the extent of lymph node dissection. A conditional inference tree method was used to fit a binary decision tree predicting operative time. Permutation tests were performed to determine the variables having the strongest association with surgical time. The data were split at the value of this variable resulting in the largest difference in means for the surgical time resultant data sets until the permutation tests showed no significant association with operative time.**Results:**In all, 2 134 procedures were included. The variable most strongly associated with surgical time was type of diversion, with ileal conduits being 70 min shorter ($P < 0.001$). Amongst patients who received neobladders, the type of lymph node dissection was also strongly associated with surgical time. Amongst ileal conduit patients, institutional surgeon volume (>66 RARCs) was important, with those with a higher volume being 55 min shorter ($P < 0.001$). The regression tree output was in the form of box plots that show the median and ranges of surgical times according to the patient, disease, and institutional characteristics.**Conclusion:**We developed a method to estimate operative times for RARC based on patient, disease, and institutional metrics that can help operating room scheduling for RARC

Keywords: Cystectomy;Operative Time;Quality Control;Robot-Assisted;Scheduling.

386. Impact of Suboptimal Neoadjuvant Chemotherapy on Peri-Operative Outcomes and Survival After Robot-Assisted Radical Cystectomy: A Multicentre Multinational Study

Hinata N, Hussein AA, George S, Trump DL, Levine EG, Omar K, Dasgupta P, Khan MS, Hosseini A, Wiklund P and Guru KA

Bju International, 119: 605-611 (2017) IF: 4.439

Objectives: To evaluate the effect of suboptimal dosing on the outcomes of patients who received neoadjuvant chemotherapy (NAC) and robot-assisted radical cystectomy (RARC).**Patients and Methods:**We retrospectively reviewed 336 consecutive patients with urothelial carcinoma of the bladder who were treated with NAC and RARC at three academic institutions. Outcomes were compared among three groups: patients who received optimal NAC; patients who received suboptimal NAC; and those who did not receive NAC. To adjust for potential baseline differences between the three groups, propensity-score-based matching was performed. The suboptimal dose group was defined as those who received <3 cycles of cisplatin-based chemotherapy, received a decreased dosage, or those not treated with cisplatin. Primary outcomes analysed were recurrence-free survival (RFS) and overall survival (OS). Secondary outcomes were peri-operative complications and readmissions after RARC.**Results:**After propensity-score matching, 69 patients in the cohort received optimal-dose NAC, 41 received suboptimal NAC and 69 did not receive NAC. Complication rates and readmission rates did not differ significantly among the three groups. On multivariable analysis, suboptimal NAC and no NAC were independent predictors of worse RFS (hazard ratio [HR] 2.5, 95% confidence interval [CI] 1.2-5.7, $P = 0.01$ and HR 2.4, 95% CI 1.28-5.16, $P = 0.01$) and worse OS (HR 4.5, 95% CI 1.6-15.0, $P < 0.01$ and HR 4.9, 95% CI 1.9-15.6, $P < 0.01$) in patients who received NAC and RARC. Failure to achieve pathological complete response (ypT0N0) was also an independent predictor of worse RFS (HR 6.6, 95% CI 1.3-20.9; $P = 0.02$) and OS (HR 4.9, 95% CI 1.8-15.3; $P = 0.02$).**Conclusion:**Optimal NAC resulted in a better RFS and OS when compared with suboptimal or no NAC. Suboptimal and no NAC were associated with worse OS and RFS. These findings will facilitate improved patient counseling and treatment selection.

Keywords: Cisplatin; Neoadjuvant Chemotherapy; Radical Cystectomy; Recurrence; Robot-Assisted Surgery; Survival

387. Surgical Competency for Robot-Assisted Hysterectomy: Development And Validation of A Robotic Hysterectomy Assessment Score (Rhas)

Frederick PJ, Szender JB, Hussein AA, Kesterson JP, Shelton JA, Anderson TL, Barnabei VM and Guru K

Journal Of Minimally Invasive Gynecology, 24: 55-61 (2017) IF: 3.061

Study Objective: To develop and validate a procedure-specific scoring algorithm to objectively measure robotic surgical skills during robot-assisted hysterectomy and to facilitate robotic surgery training and education.**Design:**(Canadian Task Force classification III).**Setting:**A National Comprehensive Cancer Network-designated comprehensive cancer center. **Patients:** Deidentified videos for robot-assisted hysterectomies were evaluated. **Interventions:** Videos from 26 robotic hysterectomies performed by surgeons with varying degrees of experience using the scoring system were evaluated. In phase I, critical elements of a robotic hysterectomy were deconstructed into 6 key domains to assess technical skills for procedure completion. Anchor descriptions were developed for each domain to match a 5-point

Likert scale. Delphi methodology was used for content validation. A panel of 5 expert robotic surgeons refined this scoring system. In phase II, video recordings of procedures performed by surgeons with varying degrees of experience (expert, advanced beginner, and novice) were evaluated by blinded expert reviewers using the scoring system. Descriptive statistics were used to summarize the scores for each domain. Intraclass correlation was used to determine the interrater reliability. A p value <.05 was considered significant.**Measurements and Main Results:**The average score for the 3 classes of surgeon was 75.6 for expert, 71.3 for advanced beginner, and 69.0 for novice (p = .006). There were significant differences in scores of most individual domains among the various classes of surgeons. Novice surgeons took significantly longer than expert surgeons to complete their half of a hysterectomy (22.2 vs 12.0 minutes; p = .001).**Conclusion:**This pilot study demonstrates the feasibility of using a standardized rubric for clinical skills assessment in robotic hysterectomy. Blinded expert reviewers were able to differentiate between varying levels of surgical experience using this assessment tool.

Keywords:
Assessment;Evaluation;Feedback;Hysterectomy;Robot-Assisted;Robotic.

388. Randomized, Double‐Blind, Placebo‐Controlled Trial to Compare Solifenacin Versus Trospium Chloride in the Relief of Double‐J Stent‐Related Symptoms

Abdelhamid MH, Zayed AS, Ghoneima WE, Elmarakbi AA, El Sheemy MS, Aref A, Abdelbary A and Nour HH.

World Journal Of Urology, 35(8): 1261-1268 (2017) IF: 2.743

Purpose: We aimed to compare the safety and efficacy of solifenacin versus trospium chloride and compare each drug versus placebo regarding the relief of stent-related symptoms following uncomplicated ureteroscopic lithotripsy (URSL).**Methods:**In a prospective, randomized, double-blind study, 210 eligible patients who underwent URSL with double-J stent insertion were recruited and randomly assigned to either the first group, receiving solifenacin (10 mg), second group, receiving trospium chloride (60 mg), or the third group, receiving placebo (one tablet). All patients were kept on study medication once daily during the entire 2-week postoperative period. All subjects were asked to complete a brief-form questionnaire to assess the lower urinary symptoms, stent-related body pain and hematuria, preoperatively and 2 weeks postoperatively. **Results:**There were no statistically significant differences among the study groups in terms of mean age, gender, anthropometric measurements, stone and stent criteria. The overall symptom score, urgency, urge incontinence, flank pain, urethral pain and gross hematuria scores were significantly lower in solifenacin group compared to trospium chloride and placebo groups (p < 0.001). Concerning frequency and nocturia, there was no significant difference in mean scores across all groups. Drug-related side effects, particularly constipation, were higher in trospium group than in solifenacin one.**Conclusions:** Solifenacin treatment showed significant improvement in almost all domains of stent-related symptoms than trospium. In terms of safety and tolerance, both drugs were comparable. Future studies should be designed to address the impact of combined drugs and lower doses in the management of DJ stent-related symptoms.

Keywords: Laser Lithotripsy; Solifenacin; Stent-Related Symptoms; Trospium Chloride; Ureteroscopy

389. Improving Teamwork: Evaluating Workload of Surgical Team During Robot-Assisted Surgery.

Cavuoto LA, Hussein AA, Vasan V, Ahmed Y, Durrani A, Khan S, Cole A, Wang D, Kozlowski J, Ahmad B and Guru KA

Urology, 107: 120-125 (2017) IF: 2.309

Objective: To investigate the cognitive and physical workload experienced by each operating room team member for different types of urologic procedures.**Methods:**Surgeons, anesthesiologists, surgical fellows, bedside assistants, circulating nurses, and scrub nurses completed the National Aeronautics and Space Administration Task Load Index questionnaire for various urologic robot-assisted surgery procedures. A total of 338 questionnaires from 55 unique individuals were collected. Workload differences by role, type of procedure, and surgery duration were analyzed using analysis of variance for each of the 6 domains of the National Aeronautics and Space Administration Task Load Index. The effects of trainees' participation on their perceived workload and the workloads of the lead surgeon and bedside assistant were analyzed with correlation.**Results:**The role of the surgical team was significant for all the scales of workload, and there was a main effect type of surgery on temporal demand and frustration. Frustration was higher for prostatectomy in comparison to cystectomy for the trainee surgeon. On the other hand, it was lower for the anesthesiologist, bedside assistant, and the circulating nurse. There was no effect of procedural complexity on workload. Regardless of surgical complexity, the trainees performed approximately 40% of the procedure without significantly impacting their perceived workload.**Conclusion:**This study provides an analysis of variations and contributors to workload parameters and serves as a platform to optimize team members' workload during robot-assisted surgery.

Keywords: Workload;Robot-Assisted Surgery;Physical Demand;Mental Demand.

390. Reply by the Authors

May PR, Hussein AA, Wilding G and Guru KA

Urology, 101: 175-175 (2017) IF: 2.309

Although disease characteristics remain the main determinantof survival, a high-quality surgical procedure withoptimal perioperative care holds the key for the best possibleoutcomes, especially with favorable pathology.1 Compositemeasures that combine multiple quality indicatorsinto a single score have been shown to improve the reliabilityof assessment of surgical performance.2 As mentionedin the paper, all quality indicators used to developthe Quality Cystectomy Score (QCS) were identifiedthrough an extensive review of radical cystectomy literature.Internal validation of QCS was then performed usingour prospectively maintained robot-assisted radical cystectomy(RARC) database. Construct validity was demonstratedby showing that patients with higher scoresexhibited better recurrence-free survival, disease-specificsurvival, and overall survival.It is not uncommon for Kaplan-Meier curves to cross,particularly when no difference in survival exists betweengroups. No claim was made here for a statistically signifi-

cant difference in survival between patients with a QCSof 3 or 4, but rather who got higher QCS (3 or 4 stars) vslower scores (1 or 2 stars).There is no standard way to build a multivariate regressionmodel. In our study, univariable and multivariable Coxproportional hazard regression models were utilized to evaluatethe association of different variables with recurrencefreesurvival, disease-specific survival, and overall survival.All multivariable models were adjusted for age, gender, bodymass index, American Society of Anesthesiologists score,pathologic tumor stage, and pathologic nodal stage. Givena set of competing methods for model building, the optimalmethod remains generally unknown. QCS is intended tomeasure and evaluate surgical performance in the day-todayclinical practice.

391.Dismembered Pyeloplasty in Infants 6 Months Old or Younger with and without External Trans-Anastomotic Nephrostent: A Prospective Randomized Study

Farouk M. Nasser, Ahmed M. Shouman, Mohammed S. ElSheemy, Mohammed A. Lotfi, Waseem Aboulela , Mohamed El Ghoneimy, Mohammad Abdelwahhab, Ahmed I. Shoukry, Waleed Ghoneima, Hany Morsi and Hesham Badawy

Urology, 101: 38-44 (2017) IF: 2.309

ObjectiveTo compare the outcome of dismembered pyeloplasty in infants with and without external nephro-ureteric stent (ENUS) for treatment of congenital ureteropelvic junction obstruction.**Methods**This is a parallel, randomized comparative study between October 2013 and September 2014. Thirty infants ≤6 months old with ureteropelvic junction obstruction indicated for dismembered pyeloplasty were randomly assigned (block randomization, closed envelope method) into two groups: group A (stentless) and group B (ENUS). Infants with solitary kidney, gross pyuria, huge pelvis, vesicoureteric reflux, or other renal anomalies were excluded. Operative data, complications, and ultrasonographic and nuclear scintigraphy criteria were compared after at least 18 months of follow-up using Student t, Mann-Whitney U, Kruskal-Wallis, chi-square, and Fisher exact tests when appropriate. Occurrence of urinary leakage was the primary outcome.**Results**Included patients completed the study with intention-to-treat analysis. All children had normal renal function. The mean operative time was 85.3 ± 6.3 (60-90) minutes in group A and 92.6 ± 15.3 (70-120) minutes in group B (P = .2). Although there was a significant postoperative improvement in each group in split renal function and anterior-posterior renal pelvis diameter, there was no significant difference between both groups. The mean hospital stay for group A and group B was 5.9 ± 2 (4-10) days versus 3.5 ± 0.8 (2-5) days, respectively (P < .001). Postoperative urinary leakage was reported only in group A (40%). All complications were managed by double J insertion. Auxiliary interventions were higher in group A. The overall success rate was 93.4%. Redo pyeloplasty was performed in one case in each group.**Conclusion**ENUS significantly reduces hospital stay and complications. It saves the infant hazards of auxiliary interventions under general anesthesia for management of leakage or double J removal if placed at time of pyeloplasty.
Keywords: Dismembered Pyeloplasty;Trans-Anastomotic Stent;External Nephrostent;Urinary Leakage;Infants.

392.Mini-Percutaneous Nephrolithotomy for Stones in Anomalous-Kidneys: A Prospective Study.

Sanjay Khadgi, Babu Shrestha, Hamdy Ibrahim, Sunil Shrestha, Mohammed S. ElSheemy and Ahmed M. Al-Kandari

Urolithiasis, 45: 407-414 (2017) IF: 1.816

To evaluate safety and efficacy of minipercutaneous nephrolithotomy (Mini-PNL) in management of stones in different types of renal anomalies. Patients with stones ≥2 cm or SWL-resistant stones in anomalous-kidneys treated by Mini-PNL between March 2010 and September 2012 were included prospectively. Mini-PNL was done under regional anesthesia in prone position with fluoroscopic guidance through 18 Fr sheath using semirigid ureteroscope (8.5/11.5 Fr) and pneumatic lithotripter. All patients were followed-up for 2–3 years. Stone-free rate was defined as absence of residual fragments ≥2 mm. Student-T, Mann–Whitney, Chi square (χ 2), Fisher-exact, one way ANOVA or Kruskal–Wallis test were used for analysis. Mini-PNL was performed for 59 patients (20 horseshoe, 15 malrotated, 7 polycystic, 13 duplex and 4 ectopic pelvic-kidneys). Mean age was 40.18 ± 12.75 (14–78) years. Mean stone burden was 31.72 ± 21.43 (7.85–141.3) mm2. Two tracts were required in 7 (11.9 %) patients. Tubeless Mini-PNL with double-J insertion was performed in all patients except two. Operative time was 50.17 ± 18.73 (15–105) min. Hemoglobin loss was 0.44 ± 0.30 (0–1.4) g/dL. Complications were reported in 15 (25.4 %) patients. No pleural injury, sepsis, perinephric-collection or renal-pelvis perforation were reported. Stone-free rate was 89.8 % (converted to open-surgery in one patient, second-look PNL in two patients, auxiliary SWL in three patients). Stone-free rate improved to 98.3 % after retreatment and auxiliary SWL. Site of puncture was mostly upper calyceal in horseshoe-kidney (80 %), mid calyceal in polycystic-kidney (85.7 %) and lower calyceal in duplex-kidney (46.2 %). Punctures were also significantly infracostal in horseshoe-kidney (100 %) and supracostal in both duplex (53.8 %) and malrotated-kidneys (66.7 %). Mini-PNL is safe for management of stones in anomalous-kidney with SFR comparable to standard-PNL but with less complications.
Keywords: Mini-Percutaneous Nephrolithotomy Renal Stones Anomalous Kidney Horseshoe Kidney Polycystic Kidney.

393. Cognitive Learning and its Future in Urology: Surgical Skills Teaching and Assessment.

Somayeh B. Shafiei, Ahmed A. Hussein and Khurshid A. Guru

Current Opinion in Urology, 27: 342-347 (2017) IF: 1.796

Purpose Of Review: The aim of this study is to provide an overview of the current status of novel cognitive training approaches in surgery and to investigate the potential role of cognitive training in surgical education.RECENT **Findings:**Kinematics of end-effector trajectories, as well as cognitive state features of surgeon trainees and mentors have recently been studied as modalities to objectively evaluate the expertise level of trainees and to shorten the learning process. Virtual reality and haptics also have shown promising in research results in improving the surgical learning process by providing feedback to the trainee.**Summary:**'Cognitive training' is a novel approach to enhance training and surgical performance. The utility of cognitive training in improving motor skills in other fields, including sports and rehabilitation, is promising enough to

justify its utilization to improve surgical performance. However, some surgical procedures, especially ones performed during human-robot interaction in robot-assisted surgery, are much more complicated than sport and rehabilitation. Cognitive training has shown promising results in surgical skills-acquisition in complicated environments such as surgery. However, these methods are mostly developed in research groups using limited individuals. Transferring this research into the clinical applications is a demanding challenge. The aim of this review is to provide an overview of the current status of these novel cognitive training approaches in surgery and to investigate the potential role of cognitive training in surgical education.
Keywords: Cognitive Load;Haptics;Mentoring;Robot-Assisted;Surgery;Training.

394. The Role of Voiding Cystourethrography in Asymptomatic Unilateral Isolated Ureteropelvic Junction Obstruction: A Retrospective Study

Mohammed S. ElSheemy, Waleed Ghoneima, Mohammad Abdelwahhab, Waseem Aboulela, Kareem Daw, Ahmed M. Shouman, Ahmed I. Shoukry, Mohamed El Ghoneimy, Hany A. Morsi and Hesham Badawy

Journal Of Pediatric Urology, 13: 2060-2060000000 (2017) IF: 1.611

IntroductionThe presence of concomitant vesicoureteric reflux (VUR) and ureteropelvic junction obstruction (UPJO) is uncommon. Nevertheless, the reported VUR coexisting with asymptomatic unilateral isolated hydronephrosis (AUIH) requiring pyeloplasty for correction of UPJO was of low grade and mostly resolved during conservative follow-up. Therefore, VCUG may be not indicated in these children except if voiding symptoms, urinary tract infection (UTI), dilated ureters, or bladder and ureteric abnormalities are suspected.**Objectives**The aim was to evaluate the need for VCUG in infants <1 year old with AUIH for whom a dismembered pyeloplasty was indicated for correction of UPJO.**Methods**Ninety-six children <1 year old with pyeloplasty carried out from January 2012 to March 2014 were retrospectively included. Children with voiding symptoms or dilated ureter, duplex system, fused kidneys, bilateral dilatation, or any bladder abnormality on ultrasound were excluded. Anderson–Hynes pyeloplasty was performed through a flank incision. Preoperative VCUG was analyzed in relation to outcome and any UTI during follow-up. The Student t test, Mann–Whitney U test, or Fisher exact test were used to compare variables.**Results**Five children had concomitant VUR with UPJO. Most of the children were circumcised during the first postnatal week. The remaining few children were circumcised at the time of pyeloplasty. Side, grade of detected VUR, and complications (18.75%) (postoperative or during follow-up) are presented in the Table . Outcomes in children with and without VUR were not different. Dismembered pyeloplasty was successful in children with VUR and with no complications except for non-febrile UTI in one child only. Ureters were still not dilated at the last follow-up.DiscussionThe required imaging in infants with AUIH is still a subject of debate. As we expected, there was a low incidence of associated VUR in the present study. They were of low grade without any complications during follow-up and without affecting the outcome. The present study has its limitations, including the retrospective nature and short follow-up. However, as at least 2 years of follow-up were documented without any harm or ureteric dilation, VUR will mostly resolve. The present study is strengthened by inclusion of infants only.ConclusionsOur data suggest that VCUG is not indicated in infants with AUIH requiring pyeloplasty for correction of UPJO. VCUG will not affect the treatment decision, operative outcome, or postoperative complications. VCUG may be indicated in case of suspected voiding symptoms, UTI, dilated ureters, or bladder and ureteric abnormalities.TableDetected VUR and outcome in all patients.Table Number of patients (%) VUR in VCUG 5/96 (5.2%) Ipsilateral 4 (4.16%) Contralateral 1 (1.04%) Grade of detected VUR Grade 1 5/5 (100%) Complications (postoperative and during follow-up): 18/96 (18.75%) Non-febrile UTI 4/96 (4.16%) Febrile UTI 1/96 (1.04%) Leakage 7/96 (7.3%) Wound infection 1/96 (1.04%) Obstruction 5/96 (5.2%) Redo-pyeloplasty 3/96 (3.12%)VUR = vesicoureteric reflux; VCUG = voiding cystourethrography.
Keywords: Infants;Non-Dilated Ureters;Voiding Cystourethrography;Isolated Hydronephrosis;Concomitant Vur and Upjo.

395. Intermittent Testicular Torsion in Adults: an Overlooked Clinical Condition.

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Medical Principles And Practice, 26: 30-34 (2017) IF: 1.469

Objectives: The aim of this study was to describe the management protocol for intermittent testicular torsion (ITT) in adults and report the outcome of this clinical condition, which is commonly overlooked in adults.**Subjects and Methods:**Sixty-three patients were included in the study. The inclusion criterion was the presence of sudden intermittent testicular pain over a duration of 3 months. All the patients underwent clinical examination, urine analysis, culture, and scrotal ultrasound with Doppler. The testicle was in an abnormal or in transverse lie and/or could easily be twisted. Scrotal support and analgesia were given for 1 month, then patients were offered orchidopexy or conservative treatment. Nineteen patients chose orchidopexy while 44 chose conservative treatment. Follow-up ranged from 3 months to 2 years. The improvement was assessed using a visual analog pain score. The outcome of the treatment was compared between the surgical and conservative groups using a $\chi 2$ test.**Results:**The median age of the patients was 28 years (range: 17-50). Of the 19 patients who underwent orchidopexy, the pain resolved or visual analog pain scores improved (median 1/10) in 18 (94.7%) cases. On the other hand, 21 of the 44 (47.7%) cases that chose the conservative approach claimed their pain resolved or improved (visual analog pain scores: median 3/10) with a median of 13 months of follow-up.**Conclusion:**In this study, scrotal orchidopexy proved to be superior to conservative measures in cases of ITT in adults.
Keywords: Adults;Intermittent Testicular Torsion; Conservative; Treatment; Orchidopexy.

396. Urological Comorbidities in Egyptian Rheumatoid Arthritis Patients: Risk Factors and Relation to Disease Activity and Functional Status

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Egyptian Rheumatologist, 39: 213-216 (2017)

Aim of the work: To assess the urological disorders in rheumatoid arthritis (RA) patients, analyse the riskfactors and to find their relation to disease activity and functional status.**Patients and methods:** 291 RA patients (253 females and 38 males; F:M 6.7:1) and 242 matched controlswere included. Urological disorders in the form of urinary tract infections (UTI), urolithiasis and acuteurine retention (AUR) were assessed, risk factors were analysed. Disease activity score (DAS-28) andmodified health assessment questionnaire (mHAQ) were calculated.**Results:** RA patients had more frequent urological disorders (38.14%) than controls (20.66%), more UTI($p < 0.001$) and this difference persisted in females ($p < 0.001$). Urolithiasis tended to be more frequentin RA patients ($p = 0.3$); the difference was significant between the female patients and controls($p = 0.04$). Urinary stones were comparable between the male patients and controls ($p = 0.2$). RA patientshad more AUR (4.8%) than the controls (2.1%) ($p = 0.07$). Asthmatic patients particularly the females hadmore UTI ($p = 0.001$ and $p < 0.001$ respectively). UTIs were observed with higher steroid doses ($p = 0.04$)and urolithiasis were noticed more in hypertensive female patients ($p = 0.03$). Patients with higher DAS28and mHAQ developed more urological comorbidities (p0.49 and $p = 0.82$ respectively). UTI andurolithiasis were detected in patients with higher DAS 28 ($p = 0.1$ and $p = 0.4$ respectively).**Conclusion:** RA patients were found to have more urological disorders. Bronchial asthma, hypertensionand higher steroid doses may increase risk for urinary comorbidities in RA. Patients with higherDAS28 and mHAQ had more urological comorbidities, however without statistically significantdifference

Keywords: Rheumatoid Arthritis Urological Comorbidities Risk Factors Disease Activity Functional Status

397. Risk Factors for Sexual Dysfunction in Egyptian Patients with Rheumatoid Arthritis and its Relation to Disease Activity

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Aim of the work: To assess risk factors for sexual dysfunction in married rheumatoid arthritis (RA)patients.**Patients and methods:** 216 RA (187 females and 29 males) and 187 matched healthy controls wereincluded. Sexual function in male was assessed by modified International Index of Erectile FunctionQuestionnaire (IIEF questionnaire) **including:** erectile function, sexual desire (libido), orgasmic and ejaculatoryproblems. For females, in addition to questions about libido, orgasmic problems, frequency of sexualintercourse and dyspareunia were considered. Disease activity scores (DAS-28) and modified healthassessment questionnaire (mHAQ) were calculated.**Results:** The mean age of the patients was 45.2 ± 12.1 years and disease duration was 8.2 ± 7.6 years. Allsexual dysfunction parameters were significantly higher in RA than in the controls. Patients with sexualdysfunction were older ($p = 0.008$), illiterate ($p = 0.04$), diabetics ($p = 0.004$), hypercholesterolemics($p = 0.002$), had high ESR (45.1 ± 21.6 mm/1st h) ($p < 0.001$), longer MS duration (39.3 ± 40.9 minutes)($p = 0.01$), had high DAS28 ($p < 0.001$) and mHAQ ($p = 0.004$) and used higher doses of leflunomide($p = 0.01$). Multivariate regression analysis revealed that the presence of DM (OR 5.1; 95%CI 1.3–19.4),hypertension (OR 3.5; 95%CI 1.9–6.1), hypercholesterolemia (OR 3.6; 95%CI 1.5–8.2), older age(P45 years) (OR 2.4; 95%CI 1.3–4.5) ($p = 0.003$), active RA patients were associated with a higher riskof sexual dysfunction (OR 2.7; 95%CI 1.09–6.5) ($p = 0.03$); OR increased to 5.6 (95%CI 2.7–11.8) in patientswith severe disease activity.**Conclusion:** DM, hypertension, hypercholesterolemia, older age and high disease activity in RA increasethe risk of sexual dysfunction.

Keywords: Sexual Dysfunction Rheumatoid Arthritis Risk Factors Das-28 Modified Haq.

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398. Improving Internal Cell Colonization of Porous Scaffolds with Chemical Gradients Produced by Plasma Assisted Approaches

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Cell colonization of the surrounding environment is a very significant process in both physiological and pathological events. In order to understand the tissue regeneration process and thereby provide guidance principles for designing new biomaterials, it is of paramount importance to study the cell colonization in the presence of physical, chemical, and biological cues. Flat "gradient" materials are generally used with this purpose. Three dimensional gradient scaffolds mimicking more precisely the situation in vivo are somewhat more complex to fabricate and characterize. Scaffolds for Tissue Engineering (TE) made of hydrophobic synthetic polymers do not allow good cell colonization: far from their periphery, in fact, internal cell colonization is usually low. In this research poly-ε caprolactone (PCL) scaffolds have been "decorated" with chemical gradients both on top and along their thickness by means of cold plasma processes, in order to improve cell colonization of their core. Plasma treatments with a mixture of argon and oxygen (Ar/O2), as well as plasma deposition of differently cross-linked poly(ethylene oxide) (PEO)-like coatings, have been performed. This study establishes that cross-linked PEO-like domains interspaced with native PCL ones deposited only on top of the scaffold (i.e., coating that penetrates less than 300 μm inside the scaffold) are more effective in promoting cell colonization across the scaffolds than the other tested materials including superhydrophilic samples and that ones produced by tested double step approaches. Last but not least, one result of this research is that, in the case of plasma coatings with low deposition rates and porous materials with a low pore interconnectivity, it is possible to improve penetration of low pressure plasma active species inside the scaffold's core thorough a pretreatment of the porous materials (i.e., penetration up to 4500 mm far from topside).

Keywords: Biodegradable Polyesthers; Cell Colonization; Chemical Gradients; Plasma; Scaffolds; Tissue Engineering

399. Regenerating Bone with Bioactive Glass Scaffolds: A Review of in Vivo Studies in Bone Defect Models

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Large bone defects resulting from fractures and disease are a medical concern, being often unable to heal spontaneously by the body's repair mechanisms. Bone tissue engineering (BTE) is a promising approach for treating bone defects through providing a template to guide osseous regeneration. 3D scaffolds with microstructure mimicking host bone are necessary in common BTE strategies. Bioactive glasses (BGs) attract researchers' attention as BTE scaffolds as they are osteoconductive and osteoinductive in certain formulations. In vivo animal models allow understanding and evaluation of materials' performance in the complex physiological environment, being an inevitable step before clinical trials. The aim of this paper is to review for the first time published research investigating the in vivo osseous regenerative capacity of 3D BG scaffolds in bone defect animal models, to better understand and evaluate the progress and future outlook of the use of such scaffolds in BTE. The literature analysis reveals that the regenerative capacity of BG scaffolds depends on several factors; including BG composition, fabrication method, scaffold microstructure and pore characteristics, in addition to scaffold pretreatment and whether or not the scaffolds are loaded with growth factors. In addition, animal species selected, defect size and implantation time affect the scaffold in vivo behavior and outcomes. The review of the literature also makes clear the difficulty encountered to compare different types of bioactive glass scaffolds in their bone forming ability. Even considering such limitations of the current state-of-the-art, results generated from animal bone defect models provide an essential source of information to guide the design of BG scaffolds in future.Statement of SignificanceBioactive glasses are at the centre of increasing research efforts in bone tissue engineering as the number of research groups around the world carrying out research on this type of biomaterials continues to increase. However, there are no previous reviews in literature which specifically cover investigations of the performance of bioactive glass scaffolds in bone defect animal models. This is the topic of the present review, in which we have analysed comprehensively all available literature in the field. The review thus fills a gap in the biomaterials literature providing a broad platform of information for researchers interested in bioactive glasses in general and specifically in the outcomes of in vivo models. Bioactive glass scaffolds of different compositions tested in relevant bone defect models are covered.

Keywords: Bone Regeneration;Bioactive Glass;3D Scaffolds;In Vivo;Bone Defects;Animal Model.

400. Could Night-Guards be Used as A Simple Method to Detect Leached-Elements from Dental Restorations Intra-Orally? A Study on Amalgam Restorations

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Background: Detection of leached-elements from dental restorations intra-orally has been a subject of prime importance in dental research. However, this is challenging as most of the present techniques have some limitations. In this study, a new simple method was proposed via using night-guards. Thus, the aim of the study was to verify if night-guards could detect leached-elements from restorations as dental amalgam. Methods: Ten upper custom-made night-guards were fabricated for patients suffering from bruxism, who had amalgam-restorations in their upper molars. The night-guards were delivered to the patients and they were instructed to wear the night-guards during when they were asleep. After six months, the night-guards were taken from the patients to be analyzed. A new unused night-guard was fabricated from the same material to be used as a control. In the used night-guards, two areas were studied: the fitting surfaces contacting the amalgam restorations and the fitting surfaces not contacting amalgam restorations. Scanning Electron Microscopy (SEM) and Energy Dispersive X-ray Analysis (EDXA) were used to examine the structural and elemental changes in the night-guards. Results: SEM of the unused night-guard revealed a homogenous structure, and the composition was carbon and oxygen, as shown using EDXA (C=88.9wt% and O=11.1wt%). By contrast, the fitting surfaces of the night-guards contacting amalgam restorations showed numerous lustrous particles. Elemental analysis of these areas showed the presence of mercury and sulfur, in addition to carbon and oxygen (Hg=21.2wt%, S=2.5wt%, C=67.1wt% and O=9.2wt%). The night-guards' fitting surfaces not contacting amalgam restorations showed slight cracking, and the composition was carbon and oxygen (C=88.3wt% and O=11.7 wt%). Conclusions: Analyzing fitting surfaces of night-guards contacting dental restorations, such as amalgam, could aid in understanding the nature of leached-elements from these restorations intra-orally. However, further studies about its application upon dental-restorations other than amalgam are recommended.

Keywords: Night Guards; Leached Elements; Dental Restorations; Intra Oral; Amalgam

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401. ssessment of Vertical Ridge Augmentation in Anterior Aesthetic Zone Using Onlay Xenografts with Titanium Mesh Versus the Inlay Bone Grafting Technique: A Randomized Clinical Trial.

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The aim of this study was to evaluate the final vertical gain at the deficient anterior maxillary alveolar ridges using onlay bone grafts with Titanium Mesh Versus Inlay Bone Grafting .This is a single institutional randomized comparative clinical trial. The study population included 16 patients, with edentuolous anterior maxillary alveolar ridges (40 implant sites) who were presented and treated at faculty of oral and dental medicine Cairo university in the period from september 2013 to august 2015 .Selected patients were randomly divided into two equal groups . The control group received onlay particulate xenograft together with titanium mesh as a space maintaing device while the study group received inlay block xenograft (sandwich osteotomy) fixed with mini- plates. Assessment included the mean percentage of vertical gain at the proposed implant sites after 6 months, taken from cross sectional cuts of a cone beam computed tomography (CBCT). a total of 40 delayed implant placement were done. . Results showed that there was no statistical significance between the 2 groups (pvalue =0.2) where the mean percentage of 6