Kasr Al-Ainy Inernational Publications

2013

Faculty of Medicine

Dept. of Andrology and Sexology

1. Seminal Clusterin Gene Expression Associated with Seminal Variables in Fertile and Infertile Men

Adel Zalata, Ayman Z. El-Samanoudy, Dalia Shaalan, Youssef El-Baiomy, Mai Taymour and Taymour Mostafa

J. Urology, 188: 1260-1264 (2012) IF: 3.746

Purpose: CLU is a disulfide linked, heterodimeric protein associated with the clearance of cellular debris and apoptosis. We assessed the association of seminal CLU gene expression with seminal variables in fertile and infertile men.

Materials and Methods: A total of 124 men were divided into healthy, fertile men with normozoospermia, and men with asthenozoospermia, asthenoteratozoospermia and oligoasthenoteratozoospermia. History was obtained, and clinical examination and semen analysis were done. in semen we assessed sperm acrosin activity, sperm DNA fragmentation and seminal CLU gene expression.

Results: CLU RNA and CLU protein gene expression were significantly increased in semen samples of infertile men with oligoasthenoteratozoospermia asthenoteratozoospermia asthenozoospermia compared with healthy, fertile controls.

CLU gene expression significantly correlated negatively with sperm count, motility,acrosin activity index, linearity index and linear velocity, and significantly correlated positively with the percent of sperm abnormal forms and DNA fragmentation.

Conclusion: CLU gene expression was significantly increased in the semen samples of infertile men. It correlated negatively with sperm count, motility, acrosin activity, linearity index and linear velocity, and positively with the percent of sperm abnormal forms and DNA fragmentation.

Keywords: Testis; Infertility; Male; DNA Fragmentation; Spermatozoa; Clusterin.

2. Ace Gene Insertion/Deletion Polymorphism Seminal Associations in Infertile Men

Adel A. Zalata, Heba K. Morsy, Abd El-Naser Badawy, Samir Elhanbly and Taymour Mostafa

J. Urology, 187: 1776-1780 (2012) IF: 3.746

Purpose: We assessed seminal associations of the ACE* gene insertion/ deletion polymorphism in infertile men.

Materials and Methods: A total of 405 men were investigated, divided into healthy fertile men, and those with asthenozoospermia, asthenoteratozoospermia and oligoasthenoteratozoospermia, respectively.

They underwent semen analysis, and assessment of sperm acrosin activity, hypo-osmotic swelling, seminal 8-iso-prostaglandin-$F_{2\alpha}$, total antioxidant capacity, alpha-glucosidase and ACE gene polymorphisms.

Result: the ACE* insertion/insertion genotype was noted in 182 men, including 76.5% of healthy fertile men, and 47.4%, 39.8% and 17.6% of those with asthenozoospermia, asthenoteratozoospermia and oligoasthenoteratozoospermia, respectively.the ACE* insertion/deletion genotype was noted in 133 men, including 13.7% of healthy fertile men, and 42.3%, 27.5% and 47.2% of those with asthenozoospermia, asthenoteratozoospermia and oligoasthenoteratozoospermia, respectively. the ACE* deletion/deletion genotype was identified in 90 men, including 9.8% of healthy fertile men, 10.3%, 32.70% and 35.2% of those with asthenozoospermia, asthenoteratozoospermia and oligoasthenoteratozoospermia, respectively. Men with the ACE* deletion/deletion and insertion/deletion genotypes showed a signi?cant decrease in sperm count, motility, linear velocity and normal forms, acrosin activity index, hypo-osmotic swelling test and seminal alpha-glucosidase, and significantly increased seminal 8-iso-prostaglandin-F than those with the ACE* insertion/insertion genotype.

Conclusions: ACE gene deletion polymorphism is associated with abnormal seminal variables, such that carriers of the ACE* deletion/deletion genotype have higher seminal oxidative stress.

Keywords: Testis; Infertility; Male; Spermatozoa; Peptidyl-Dipeptidase A; Oxidative Stress.

3. Shaeer'S Glans Augmentation Technique: A Pilot Study

Osama Shaeer

J. Sex Med, 9: 3264-3269 (2012) IF: 3.552

Interoduction: Augmentation of the glans penis may be indicated for cosmetic reasons, lack of glans tumescence following implantation of a penile prosthesis, or asymmetry following girth augmentation of the shaft.

Many augmentation techniques have been offered to increase the length and girth of penile shaft, but not the glans penis, with the exception of hyaluronic acid gel injection that is known to decrease sensitivity of the glans and is restricted for cases with premature ejaculation.

Aim: This work is the first report on glans augmentation by grafting.

Main Outcome Measures: Maximum circumference of the glans, self-reported impression of the augmented volume and glans sensitivity.

Methods: Ten males requesting augmentation of the glans were selected for the study after failing counseling, with normal erectile function and ejaculatory control.

Two ventral incisions were cut along the ventral aspects of the coronal sulcus, one on either side of the frenulum. Lateral glans flaps were dissected on either side. the urethra was circumvented, creating a plane all around it. A dermal fat graft was inserted into the space created. the flaps were closed by simple absorbable sutures.

Results: Maximum circumference of the glans increased by 16.6%, declining to 14.2% by the last follow-up visit (10–12 months), a 2.3% decline. Self-reported impression of the augmented volume was high and well maintained over the follow-up period. Glans sensation, engorgement, erectile function, and ejaculatory control were preserved.

Conclusion: This pilot study on glans augmentation by grafting reports promising results with retention of the added volume at 1-year follow-up, preservation sensitivity and engorgement, and no adverse effects on erectile function or ejaculatory control. Shaeer O. Shaeer's glans augmentation technique: A pilot study.

Keywords: Glans; Augmentation; Size; Graft.

4. The Global Online Se Xuality Survery (Gross): the United States of America in 2011 Chapter 1

Osama Shaeer

J. Sex Med, 9: 3264-3269 (2012) IF: 3.552

Introduction: The Global Online Sexuality Survey (GOSS) is a worldwide epidemiologic study of sexuality and sexual disorders, based on validated questionnaires and applying age adjustment to the World Standard Population (WSP) by theWorld Health Organization. In 2010, the first report of GOSS came from the Middle East, describing an erectile dysfunction (ED) prevalence rate of 47%.

Aim: This report studies the prevalence rate of ED in the United States as of 2011–2012 and evaluates risk factors for ED. Main Outcome Measures.Prevalence of ED.

Methods. GOSS was randomly deployed to English-speaking male web surfers in the United States via paid advertising on Facebook, comprising 146 questions including the abbreviated 5-item International Index of Erectile Function.

Results: Two thousand twenty-two males participated; with a mean age was 52.38 years 14.5. Prevalence of ED was 37.7%, adjusted to 33.7% according to WSP, comparable across ethnic groups. The following risk factors were
associated with higher risk for ED: diabetes mellitus, hypertension with and without antihypertensive treatment, coronary heart disease, obesity (defined by body mass index), difficult micturition, subjectively reported depression, interpersonal distress, subjectively reported impotence, in addition to novel factors such as subjectively reported premature ejaculation (PE) and concerns over genital size (not a smaller penis per se), low libido, and irregular coitus. Frequency of smoking and alcohol were not associated with higher prevalence of ED, although duration of smoking
was.

Conclusion: Adjusted to WSP, prevalence rate of ED in the United States of America is 33.7% in the year 2011, in contrast to the adjusted prevalence in the Middle East (47%). Most of the classical risk factors for ED play the same role in the United States and theWorld, including diabetes, hypertension, and aging. Concerns over genital size and PE are emerging risk factors for ED. Shaeer O and Shaeer K. The Global Online Sexuality Survey (GOSS).

Keywords: Epidemiology; Survey; Erectile Dysfunction; Usa; United States Of America; Prevalence

5. Effects of Female Genital Cutting on the Sexual Function of Egyptian Women. A Cross-Sectional Study

Tarek H. Anis, Samah Aboul Gheit, Hossam H. Awad and Hanan S. Saied

J. Sex Med, 9: 2682-2692 (2012) IF: 3.552

Introduction: the existing literature is conflicting regarding effects of female genital cutting (FGC) on sexual functions. Several studies from Africa over the past 20 years have challenged the negative effect of genital cutting on sexual function as defined by performance on the following domains: desire, arousal, lubrication, orgasm, satisfaction, and sexual pain. Other studies however indicated that sexual function of genitally cut women is adversely altered.

Aim: the aim of the study was to investigate the effects of FGC on the female sexual function of Egyptian women.

Methods: This is a cross-sectional study conducted between February and May 2011 at the outpatient clinic of Cairo University Hospitals. the study included 650 Egyptian females between 16 and 55 years of age (333 genitally cut women and 317 uncut women). Participants were requested to complete the Arabic Female Sexual Function Index (ArFSFI) and were then subjected to clinical examination where the cutting status was confirmed.

Main Outcome Measures: the total score of the ArFSFI and its individual domains.

Results: the mean age of cutting was 8.59 (±1.07) years. of the cut participants, 84.98% showed signs of type I genital cutting, while 15.02% showed signs of type II genital cutting. After adjusting for age, residential area, and education level, uncut participants had significantly higher ArFSFI total score (23.99 ± 2.21) compared with cut participants (26.81 ± 2.26). the desire, arousal, lubrication, orgasm, and satisfaction domains were significantly higher in the uncut participants (4.02 ± 0.78, 4.86 ± 0.72, 4.86 ± 0.75, 4.86 ± 0.68, 5.04 ± 0.71, respectively) compared with those of the cut participants (3.37 ± 0.89, 4.13 ± 0.71, 4.16 ± 0.84, 4.50 ± 0.79, 4.69 ± 0.92, respectively). No significant difference between the two groups was found regarding the sexual pain domain.

Conclusion: in Egyptian women, FGC is associated with reduced scores of ArFSFI on all domain scores except the sexual pain domain.

Keywords: Female Genital Cutting; Female Sexual Function Index; Female Sexual Function; Egyptian Population.

6. Pheromones in Sex and Reproduction: Do they Have A Role in Humans?

Taymour Mostafa, Ghada El Khouly and Ashraf Hassan

Journal of Advanced Research, 3 (1): 1-9 (2012) IF: 3

Pheromones are found throughout the living world and are a primal form of communication. These chemical messengers are transported outside the body and have a direct developmental effect on hormone levels and/or behaviour.

This review article aims to highlight the role of human pheromones in sex and reproduction. A review of published articles was carried out, using PubMed, medical subject heading (MSH) databases and the Scopus engine. Key words used toassess exposure, outcome, and estimates for the concerned associations, were; olfaction; sex; pheromones; libido; behaviour; reproduction; humans; and smell.

Although there are studies to support this phenomenon, they are weak because they were not controlled; others have proposed that human olfactory communication is able to perceive certain pheromones that may play a role in behavioural as well as reproductive biology. Unfolding the mysteries of smells and the way they are perceived requires more time and effort as humans are not systems that instinctively fall into a behaviour in response to an odour, they are thinking individuals that exercise judgment and subjected to different motivations.

Keywords: Olfaction; Sex; Pheromones; Libido; Behaviour; Reproduction.

7. Effect of Smoking on Sperm Vitality, Dna Integrity, Seminal Oxidative Stress, Zinc in Fertile Men

Emad A. Taha, Azza M. Ez-Aldin, Sohair K. Sayed, Nagwa M. Ghandour and Taymour Mostafa

Urology, 80 (4): 822-825 (2012) IF: 2.428

Objective: to assess the effect of smoking on sperm vitality, sperm DNA integrity, semen reactive oxygen species, and zinc levels in fertile men.
Methods: One-hundred sixty men were investigated. They were divided into 2 equal groups: healthy fertile
nonsmokers and healthy fertile smokers. They were subjected to history taking, clinical examination,
and semen analysis. in their semen, sperm hypo-osmotic swelling test, sperm DNA fragmentation test, seminal reactive oxygen species, and zinc were assessed.
Results: Compared with fertile nonsmokers, fertile smokers were significantly associated with lower hypo-osmotic swelling test and seminal zinc levels and significantly associated with higher sperm DNA fragmentation percent and seminal reactive oxygen species levels.
Conclusion: Smoking (cigarettes/day and duration) has detrimental effects on sperm motility, viability, DNA fragmentation, seminal zinc levels, and semen reactive oxygen species levels, even in fertile men, and it is directly correlated with cigarette quantity and smoking duration.

8. Androgen Receptor-Cag Repeats in Infertile Egyptian Men

T. Mostafa, L. H. El-Shahid, A. A. El Azeem, O. Shaker, H. Gomaa and H. M. Abd El Hamid

Andrologia, 44: 147-151 (2012) IF: 1.546

This study aimed to assess the androgen receptor (AR) codon amino acids glutamine (CAG) repeats in 185 Egyptian men divided into fertile controls (n =30),oligoasthenoteratozoospermic (OAT) men (n = 35), nonobstructive azoospermic (NOA) men (n = 120; 18 successful testicular sperm extraction (TESE) and 102 unsuccessful TESE cases).
They were subjected to history taking, genital examination, semen analysis, testicular biopsies for NOA cases, serum hormones and CAG repeats by PCR. the mean AR-CAG repeats showed significant difference between NOA group compared with fertile controls or OAT groups. Nonsigni?cant difference was elicited between OAT group and fertile controls. in NOA cases, CAG repeats demonstrated nonsignificant difference between unsuccessful and successful TESE. AR-CAG repeats elicited significant negative correlation with sperm count, significant positive correlation with sperm normal forms percentage and nonsignificant correlations with sperm motility per cent, tested serum hormones or testicular volume. It is concluded that AR-CAG repeats in Egyptian infertile men are in the range of other international or regional studies. AR-CAG repeats have demonstrated nonsignificant difference regarding TESE outcome in NOA cases.

Keywords: Azoospermia; Cag; Male Infertility; Semen; Tese; Testis.

9. Ultrasonographic Parameters of the Spermatic Veins at the Inguinal and Scrotal Levels in Varicocele Diagnosis and Post-Operative Repair

S. El-Haggar, S. Nassef, A. Gadalla, A. Latif and T. Mostafa

Andrologia, 44: 210-213 (2012) IF: 1.546

Varicocele has been identified as an important cause of male infertility where its influence on men's reproductive capacity is due to its markedly diverse effects on the testicles. This study aimed to assess the value of ultrasonographic parameters of the spermatic veins at the inguinal and scrotal levels in varicocele diagnosis and post-operative evaluation. Forty-five infertile men associated with varicocele and 15 fertile men were subjected to history taking, genital examination and semen analysis. in addition, inguinal and scrotal ultrasonography was carried out pre-varicocelectomy and 3 months post-varicocelectomy. at both the scrotal or inguinal levels, the mean spermatic vein diameter demonstrated significant post-operative decrease compared with the pre-operative resting condition and on Valsalva' manoeuvre. the mean diameters of the pampiniform plexus of veins also demonstrated significant decreases post-operatively compared with the pre-operative resting condition or on Valsalva' manoeuvre. It is concluded that colour Doppler ultrasound is a reliable and noninvasive method that is useful not only for diagnosis but also for post-varicocele repair follow-up.

Keywords: Colour Doppler; Male Infertility; Semen; Ultrasonography; Varicocele.

10. Seminal Plasma Reactive Oxygen Species– Antioxidants Relationship with Varicocele Grade

T. Mostafa, T. Anis, A. El Nashar, H. and Imam, I. Osman

Andrologia, 44 (1): 66-69 (2012) IF: 1.546

This work aimed to assess seminal plasma reactive oxygen species (ROS)- antioxidants relationship with varicocele grade in infertile men with oligoasthenoteratozoospermia (OAT). the study included 89 infertile OAT men with varicocele divided into grade I (n = 22) and grade II (n = 43), grade III (n = 24) and compared with 20 healthy fertile controls. in their seminal plasma, two ROS parameters (malondialdehyde [MDA], hydrogen peroxide [H2O2]) and four antioxidants (superoxide dismutase [SOD], catalase [Cat], glutathione peroxidase [GPx], vit.C) were estimated.
There was significant increase in seminal MDA, H2O2 and significant decrease in seminal SOD, Cat, GPx, vit.C in varicocele-associated OAT cases when compared with the controls. Compared with grade I cases, varicocele cases with grades II, III demonstrated significant increase in estimated seminal MDA, H 2 O2 and significant decrease in seminal SOD, Cat, GPx, vit.C. It is concluded that seminal oxidative stress (OS) is related to increased varicocele grade in infertile OAT men associated with varicocele.

Keywords: Antioxidants; Male Infertility; Oxidative Stress; Ros; Semen; Varicocele.

11. Effect of Testosterone and Frequent Low-Dose Sildenafil/ Tadalafil on Cavernous Tissue Oxidative Stress of Aged Diabetic Rats

T. Mostafa, L. Rashed, K. Kotb and M. Taymour

Andrologia, 1-5 (2012) IF: 1.546

This study aimed to assess the effect of testosterone (T) administration and chronic low-dose sildenafil/tadalafil on cavernous tissue oxidative stress (OS) of aged diabetic rats. in all, 140 Sprague-Dawley aged rats were subdivided into the following: controls; streptozotocin (STZ)-induced diabetic rats; diabetic rats injected with T every 4 weeks; diabetic rats on sildenafil orally daily; diabetic rats on T and daily sildenafil; diabetic rats on tadalafil orally every other day; diabetic rats on T and tadalafil; diabetic rats on alternate sildenafil/tadalafil; and diabetic rats on alternate sildenafil/tadalafil with T. After 12 weeks, the rats were euthanised where in dissected cavernous tissues malondialdehyde (MAD), glutathione peroxidase (GPx) and cGMP (cyclic guanosine monophosphate)were estimated. Compared with controls, aged diabetic rats demonstrated significant increase in cavernous tissue MDA and significant decrease in GPx and cGMP where diabetic rats injected with T had marked improvement of these parameters. Diabetic rats on sildenafil, tadalafil or alternate sildenafil/tadalafil demonstrated signi?cant increased cavernous tissue GPx, cGMP and decreased cavernous MDA that was further improved when supplemented with T. It is concluded that frequent low-dose use of sildena?l and/or tadalafil supplemented with T has a marked impact on ameliorating cavernous OS in aged diabetic rats.

Keywords: Ageing; Antioxidants; Cavernous Tissue; Diabetes; Erectile Dysfunction; Pde-5 Inhibitors; Testosterone.

12. Serum Testosterone Levels in Diabetic Men with and Without Erectile Dysfunction

S. Ghazi, W. Zohdy, Y. ElKhiat and R. Shamloul

Andrologia, 44: 373-380 (2012) IF: 1.546

Diabetes mellitus is a common chronic disease, affecting 0.5–2% worldwide. the Massachusetts Male Aging Study reported that up to 75% of men with diabetes have a lifetime risk of developing ED. Type 2 diabetes is associated with low total serum testosterone (TT) identified in several cross-sectional studies and systemic analyses. There is a lack of consensus regarding what constitutes the lowest level of testosterone within the boundaries of normality. in this retrospective study, we sought to evaluate the effect of associated co-morbidities on serum total testosterone (TT) level in men with type 2 diabetes DM, either with or without erectile dysfunction (ED). Three hundred and ninety-one patients were evaluated for erectile function using an abridged, fiveitem version of the International Index of Erectile Function-5. Measurements of TT, fasting lipid profile, blood sugar and glycated haemoglobin (HbA1c) were conducted. Penile hemodynamics was assessed using intracavernosal injection and penile duplex study. Hypogonadism was found in 126 cases (33.2%), and normal TT was observed in 254 (66.8%). ED was detected in 119 cases in the hypogonadal group (94.4%) as compared to 155/254 (61.0%) in eugonadal group, P = 0.0001. TT was lower in diabetic men with ED as compared to those with normal erectile function (EF), 392.4 ± 314.9 versus 524.3 ± 140.2 ng dl 1, respectively, P < 0.0001. After exclusion of patients with hypertension and dyslipidaemia, 185 men were evaluated, and there was no difference in the mean TT level among men with ED 490.6 ± 498.2 ng dl 1 versus normal EF 540.6 ± 133.4 ng dl 1 although, HbA1c remained lower in men with normal erectile function. Receiver operating characteristic (ROC) curve of TT in men without associated co-morbidities showed that EF was compromised at TT = 403.5 ng dl 1 or less. Sensitivity of 63.3% and a specificity of 94.0% were detected. at this level, ED was found in 33/38 (86.8%) men with TT 403.5 ng dl 1, whereas ED was observed in 57/147 (38.8%) men with TT 403.5 ng dl 1 (P < 0.0001). We propose a cut-off value of 403.5 ng dl 1 of TT blood levels as an indicator for initiation of testosterone replacement therapy in diabetic men with ED. Further prospective controlled trials are recommended.

Keywords: Diabetes mellitus; Erectile dysfunction; Testosterone.

13. Prevalence of Late-Onset Hypogonadism in Men with Type 2 Diabetes Mellitus

M. Arafa, W. Zohdy, S. Aboulsoud and R. Shamloul

Andrologia, 44: 756-763 (2012) IF: 1.546

Late-onset hypogonadism (LOH) or age-associated testosterone deficiency syndrome is defined as a clinical and biochemical syndrome associated with advancing age and characterised by symptoms and a deficiency in serum testosterone levels. This condition may result in significant detriment in the quality of life and adversely affect the function of multiple organ systems. It has been suggested that sex steroid hormones may play a causal role in the development of insulin resistance and type II diabetes. This comparative study was aimed at determining the prevalence of LOH in diabetic men with erectile dysfunction and investigating the effect of testosterone replacement therapy on erectile function and on glycaemic control.

Keywords: Hypogonadism; Diabetes; Testosterone.

14. Relation of Color Doppler Parameters with Testicular Size in Oligoasthenoteratozoospermic Men with A Varicocele

Emad A. Tahaa, Saad R. Abd El-Wahedb and Taymour Mostafa

Hum Androl, 2: 6-11 (2012)

Purpose: to assess the relation of color Doppler ultrasound (CDU) parameters with testicular size in oligoasthenoteratozoospermic (OAT) men with a varicocele (Vx). Patients and methods: in all, 500 OAT men were investigated: men without Vx (n = 100), men with left-sided Vx (n = 150), and men with bilateral Vx (n = 250). They were subjected to history taking, clinical evaluation, and scrotal CDU examination.
Results: there was a significant decrease in testicular sizes and a significant increase in size discrepancy in OAT men with left-sided and bilateral Vx compared with OAT men without Vx. Maximum vein diameter, vein numbers, and venous reflux duration of OAT men with bilateral Vx demonstrated a significant increase compared with OAT men with left-sided Vx and OAT men without Vx. Maximum vein diameter, vein numbers, and venous reflux duration in OAT men with left-sided Vx demonstrated a significant increase compared with OAT men without Vx. Maximum vein diameter on the left side demonstrated significant negative correlations with ipsilateral testicular size, right testis size, and total testicular size and a significant positive correlation with size discrepancy. CDU

parameters were associated with significant decreased total testicular size in OAT men with bilateral Vx and increased size discrepancy in OAT men with left-sided Vx.
Conclusion: Vx is associated with a significant decrease in ipsilateral, total testicular size, and increased size discrepancy. CDU parameters were associated with a significant decrease in total testicular size in OAT men with bilateral Vx and a significant increase in size discrepancy in OAT men with left-sided Vx.

Keywords: Color doppler ultrasound; Male infertility; Oligoasthenoteratozoopsermia; Testis; varicocele

Dept. of Anesthesiology

15. The Friday of Rage of the Egyptian Revolution: A Unique Role for Anesthesiologists

Ahmed Mukhtar, Ahmed Hasanin, Akram El-Adawy, Safinaz Osman, Abeer Ahmed, Heba Nassar, Dalia Saad, Ahmed Zaghloul,Mohamed Sarhan and Michael Reda

Anesth Analg, (2012) IF: 3.286

On Friday 28 January, called by some "the Friday of Rage" clashes between Egyptian protesters and security forces have happened resulted in significant injuries and even deaths among the protesters. in this article we described the challenges that we have faced during early days of revolution. Such challenges not caused only by mass casualty incident, but also security vacuum that spread chaos in the country.

Keywords: Egyptian Revolution; Mass Casuality.

16. Efficacy and Cardiovascular Tolerability of Continuous Veno-Venous Hemodiafiltration in Acute Decompensated Heart Failure: A Randomized Comparative Study

Sahar S.I. Badawy and Ahmed Fahmy

J Crit Care, 27(1): 106-113 (2012) IF: 2.127

Background and Objectives: recently, continuous veno-venous hemodiafiltration (CVVHDF) has received increased attention in the treatment of congestive heart failure (CHF). the aim of this study is to assess the safety and efficacy of CVVHDF compared with intravenous furosemide in patients with CHF.
Methods: Forty patients having CHF were included in this prospective, randomized, comparative trial. We randomized patients to treatment for 72 hours with CVVHDF or intravenous furosemide. Outcomes assessed were weight loss, total fluid output, length of stay (LOS) in the intensive care unit(ICU), 30-day mortality, and cardiovascular stability.
Results: Demographic data were comparable in both groups. Weight loss ($P \leq .05$) and total fluid output ($P \leq .01$) were greater in the CVVHDF group. Length of stay in the ICU was significantly reduced in the CVVHDF group ($P \leq .05$). the mortality rates were comparable in both groups. the cardiac output and the stroke volume significantly increased, whereas the pulmonary capillary wedge pressure significantly decreased ($P \leq .05$) in both groups compared with the baseline. A transient attack of hypotension occurred in 1 patient in the CVVHDF group.
Conclusion: in CHF, the use of CVVHDF effectively and safely produced greater weight and fluid loss and decreased LOS in the ICU more than the intravenous furosemide with no hemodynamic instability.

Keywords: Heart failure; Continuous veno; Venous hemodiafiltration; Furosemide.

17. The Association of Promoter Gene Polymorphisms of the Tumor Necrosis Factor-Alpha and Interleukin-10 with Severity of Lactic Acidosis During Liver Transplantation Surgery

O. Farahat, M. Salah, A. Mokhtar, F. Abouelfetoh, D. Labib, and H. Baz

Transplantation Proceedings, 44: 1307-1313 (2012) IF: 1.005

Background: Orthotopic liver transplantation (OLT) is a major operation, causing cytokine release and other inflammatory responses that can contribute to postreperfusion syndrome occurrence. During the systemic inflammatory response syndrome, increased lactate levels result from excessive cytokine production despite normal oxygen delivery and carbohydrate metabolism. the goal of the study was to determine the relationship between genetic polymorphisms in interleukin (IL)-10 (1082G/A) or tumor necrosis factor (TNF)- α (-376 G/A) and lactate levels in patients during OLT surgery.
Patients and Methods: This prospective observational study in 40 consecutive adult patients who underwent OLT documented lactic acid levels at 5 times: Immediately after induction of anesthesia, at the end of the pre-anhepatic phase, at the end of the anhepatic phase, 1 hour after reperfusion, and at the end of surgery. Polymerase chain reaction (PCR; RFLP methodology) was used to examine IL-10 (1082G/A) and TNF- α (-376 G/A) gene polymorphisms.
Results: Carriers of the IL-10/TNF- genotype combination GG/GG showed significantly different changes in lactate levels at 1 hour after reperfusion and at the end of surgery. Lactate levels were significantly higher among patients heterozygous for TNF-α (AG genotype) compared with patients homozygous for TNF-α (GG genotype) at same times. in contrast, there was no significant difference among IL-10 polymorphic genotypes (-1082G/A).
Conclusion: Genetic factors play a role in the development of lactic acidosis after OLT. IL-10 (1082G/A) and TNF- α (-376 G/A) gene polymorphisms could influence the variability of lactate levels after liver transplantation surgery.

Keywords: Tnf-; Gene polymorphisms; Interleukin-10; Lactic acidosis

18. Comparison between Prostaglandin E1, and Esmolol Infusions in Controlled Hypotension During Scoliosis Correction Surgery A Clinical Trial

Hala Mostafa Goma

Middile East Journal of Anesthesia, 21 (4): 599-604 (2012)

Background: scoliosis correction surgery is common in children, and adolescents. Deliberate hypotension is indicated in scoliosis correction procedures, because bloodless field is needed for exposure of the nerve roots, and to decrease the need for blood transfusion. Protection of the kidneys during deliberate hypotension is essential. the ideal hypotensive drug maintains the renal function and the urine output during the period of hypotension. Aim of this study is to compare Prostaglandin E1,

and Esmolol hypotensive effects, bleeding score, and their effects on the serum creatnine, and urine output.
Patients and methods: Twenty patients under went hypotensive anesthesia during scoliosis correction procedure, were enrolled in this clinical trial. in group 1 (n = 10) (Esmolol infusion), group 2 (n = 10) (prostaglandin E1 infusion), Parameters were measured: Mean arterial blood pressure, Heart rate, (preoperative, just after induction, 15 minutes, 30 minutes, 60 minutes after starting the infusions, and 15 minutes after discontinuation of infusions). the bleeding score was assessed at (15 minutes, 30 minutes, 60 minutes after starting the infusions).
Results: heart rate was significantly higher in prostaglandin E1 group than Esmolol group at 15, 30, 45, and 60 minutes. There was significant difference in the bleeding score only after 30 minutes, the target mean blood pressure (50 mmHg) was achieved at 30 minutes in group 2 (prostaglandin E1), while it was achieved at 60 minutes in group 1 (Esmolol group). There were significant differences in Mean blood pressure between both groups at 15, 30, 45, 60 minutes after starting the infusions. Creatnine level was significantly lower in prostaglandin E1 group, while the introperative urine output was significantly higher in prostaglandin E1 group.
Conclusions: Prostaglandin E1 hypotensive effects started earlier than Esmolol and its bleeding score is better than esmolol especially at thirty minutes after initiation of the infusion. Prostaglandin E1 can maintain renal function and urine output more than Esmolol. This study recommended using Prostaglandin E1 to induce hypotensive anesthesia in scoliosis correction surgery.

Keywords: Prostaglandine; Esmolol; Scoliosis; Surgery.

Dept. of Cardiology

19. Hypertension in Developing Countries

M Mohsen Ibrahim; and Albertino Damasceno

The Lancet, 380: 611-619 (2012) IF: 38.278

Data from different national and regional surveys show that hypertension is common in the developing world particularly in urban areas, while rates of awareness, treatment and control are low.
A number of hypertension risk factors seem to be more common in developing countries. Serial surveys showed increasing prevalence of hypertension possibly due to urbanization, aging of population, changing dietary habits and social stress. on the other hand, high illiteracy rates, lack of access to health facilities, bad dietary habits, poverty and high cost of drug therapy are factors behind poor blood pressure control. the health system in many of the developing countries is inadequate because of limited funds, lack of infrastructure and inexperience. Priority is given to care of acute conditions, child and maternal health care and control of communicable diseases.
Governments together with medical societies and non-governmental organizations should support and promote preventive programs aiming at increasing public awareness, physician education and limiting salt intake. Regulations regarding food industry, production and availability of generic drugs should be reinforced.

Keywords: Hypertension; Developing Countries; Prevalence; Treatment; Control; Risk Factors and Salt.

20. Prevalence and Severity of Pulmonary Hypertension in Asymptomatic Rural Residents with Schistosomal Infection in the Nile Delta

Azza Farrag, Wafaa El-Aroussy, Salah Zaghloul, Mohamed El-Guindy and Magdi Yacoub

Tropical Medicine and International Health, 17 (1): 112-118 (2012) IF: 2.795

Objectives: Millions of people in the developing world may suffer from pulmonary hypertension (PHTN) because of preexisting infectious conditions. Schistosomiasis can cause pulmonary lesions that eventually lead to PHTN. the aim of this study was to assess the prevalence of PHTN together with assessment of right ventricular (RV) function in asymptomatic rural residents previously infected with schistosomiasis.
Methods: Three hundred and seventy asymptomatic people from an endemic area in the Nile Delta were screened for antibodies against schistosomiasis. All were scheduled for transthoracic echocardiographic study to assess pulmonary artery systolic (PASP) and diastolic (PADP) pressures as well as RV function. PASP >40 mmHg was considered elevated.
Results: Seropositive (SP) and seronegative (SN) groups had comparable age and body mass index. PASP >40 mmHg was met in 18 subjects (Range 42–72 mmHg) (8.6%) of SP group and in no subject in SN group (P = 0.000). Compared with SN group, the SP group had higher mean values of PASP (30 ± 10 vs. 24 ± 7 mmHg, P < 0.000) and PADP (12 ± 4 vs. 9 ± 3 mmHg, P < 0.000). the SP group had lower values of RV ejection fraction.
Conclusion: Prevalence of PHTN as detected by echocardiography in asymptomatic rural residents with schistosomiasis in Nile Delta is low with mild affection of RV function.
Keywords: Schistosomiasis; Pulmonary Hypertension; Echocardiography.

21. Ventricular Function in Patients with End-Stage Renal Disease Starting Dialysis Therapy: A Tissue Doppler Imaging Study

Karim Said, Mohamed Hassan, Essam Baligh and Bahaa Zayed.

Echocardiogr-J Card, 29: 1054-1059 (2012) IF: 1.239

Background: Heart failure is prevalent in end-stage renal disease (ESRD) patients on long-term dialysis. Detection of right ventricular (RV) dysfunction before starting dialysis may help to identify patients at a higher risk of developing heart failure.
Aim: to assess RV function in predialysis patients using tissue Doppler imaging (TDI) derived myocardial performance index of RV (MPI-RV). Methods: Echocardiography including pulsed TDI of lateral tricuspid annulus was performed in 41 patients with ESRD before starting dialysis therapy and 12 age and gender matched healthy controls. RV dysfunction was definedas MPI > 0.4; a value above the median MPI in controls.
Results: Compared to controls, ESRD patients had significantly higher blood pressure and lower hemoglobin level. MPI-RV was significantly impaired in ESRD patients compared to control (0.6 vs. 0.4, P < 0.001). RV dysfunction was identified in 23 ESRD patients (56%). ESRD patients had significantly lower e' velocity and e'/a' ratio as compared with controls. Pulmonary hypertension was detected in 15 (36.5%) patients. Among ESRD patients, no correlation was detected between MPI-RV and calculated mean pulmonary artery pressure (r = –0.13, P = 0.47),

pulmonary artery systolic pressure (r = –0.12, P = 0.6), left ventricular ejection fraction (r = 0.294, P = 0.06), or MPI of left ventricle (r = 0.3, P = 0.065). ESRD patients with and without pulmonary hypertension had similar MPI-RV (0.6 vs.0.62, P = 0.32).

Conclusion: Subclinical RV dysfunction—as estimated by TDI derived MPI—is highly prevalent among ESRD patients even before starting dialysis therapy. Pulmonary hypertension is not significantly associated with RV dysfunction in these patients

Keywords: End-Stage renal disease; Myocardial performance index; Right ventricle; Tissue doppler imaging.

22. Value of Conventional and Tissue Doppler Echocardiography in the Noninvasive Measurement of Right Atrial Pressure

Karim Said, Ahmed Shehata, Zainab Ashour and Sherif El-Tobgi

Echocardiogr-J Card, 779-784 (2012) IF: 1.239

Background: Evaluation of right atrial pressure (RAP) provides useful diagnostic, therapeutic, and prognostic information.

Aim: to assess the utility of several conventional and tissue Doppler parameters in the estimation of RAP.

Methods: Among 50 consecutive patients (median age: 50 years; all in sinus rhythm),

invasively measured RAP was simultaneously correlated with pulsed Doppler of tricuspid inflow (peak E and A velocities, E-wave deceleration time) and pulsed tissue Doppler of lateral tricuspid annulus (peak E' and A' velocities, isovolumic relaxation time [IVRT], acceleration time and rate of E'-wave, deceleration time and rate of E'-wave). These ratios were calculated: E/A, E'/A', E/E', and E/IVRT.

Results: the median RAP was 14 mmHg (range 1–27 mmHg) with 29 patients (58%) having an elevated RAP (>10 mmHg).

Among all studied Doppler variables, E/E' ratio showed the strongest correlation with RAP (r = 0.84, P < 0.001) with the following regression equations: RAP = 1.24 + (1.69 × E/E'). the mean difference between Doppler and invasively measured RAP was 0.21 ± 2.6 mmHg. E/ E' ratio ≥ 4.5 provides 89% sensitivity and 100% specificity for detection of elevated RAP (receiver operating characteristic area 0.95; P < 0.001).

Conclusion: of all echocardiographic variables investigated, tricuspid annular E/E' ratio is identified as the best index for noninvasive determination of RAP.

Keywords: Right Atrial Pressure; Tissue Doppler Imaging.

23. Coronary Artery Disease in Africa and the Middle East

Wael Almahmeed, Mohamad Samir Arnaout, Rafik Chettaoui, Mohsen Ibrahim, Mohamed Ibrahim Kurdi, Mohamed Awad Taher and Giuseppe Mancia

Therapeutics and Clinical Risk Management, 8 65-72 (2012)

Countries in Africa and the Middle East bear a heavy burden from cardiovascular disease. the prevalence of coronary heart disease is promoted in turn by a high prevalence of cardiovascular risk factors, particularly smoking, hypertension, dyslipidemia, diabetes, and sedentary lifestyles. Patients in Africa and the Middle East present with myocardial infarction at a younger age, on average, compared with patients elsewhere. the projected future burden of mortality from coronary heart disease in Africa and the Middle East is set to outstrip that observed in other geographical regions.

Recent detailed nationally representative epidemiological data are lacking for many countries, and high proportions of transient expatriate workers in countries such as Saudi Arabia and the United Arab Emirates complicate the construction of such datasets. However, the development of national registries in some countries is beginning to reveal the nature of coronary heart disease.

Improving lifestyles (reducing calorie intake and increasing physical activity) in patients in the region will be essential, although cultural and environmental barriers will render this difficult.

Appropriate prescribing of pharmacologic treatments is essential in the prevention and management of cardiovascular disease. in particular, recent controversies relating to the therapeutic profile of beta-blockers may have reduced their use. the current evidence base suggests that beta-blockers are as effective as other therapies in preventing cardiovascular disease and that concerns relating to their use in hypertension and cardiovascular disease have been overstated.

Keywords: Coronary heart disease; Beta-blockers; Cardiovascular risk factors; Cardiovascular disease; Heart failure.

Dept. of Chemical Pathology

24. A Prospective Surveillance of Surgical Site Infections: Study for Efficacy of Preoperative Antibiotic Prophylaxis

Wassef M. A., Hussein A., Abdul Rahman E. M, and El-Sherif R. H.

African Journal of Microbiology Research, 6 (12): 3072-3078 (2012) IF: 0.539

To estimate the incidence and risk factors of surgical site infections, to determine the antimicrobial susceptibility pattern among the organisms isolated and to assess the ability of our protocol for preoperative antibiotic prophylaxis to prevent surgical site infections (SSI), a prospective SSI surveillance in Cairo University hospital using the criteria of the Centers for Disease Control of elective procedures, 881 patients were recruited in six months.

Data of surgical procedures, and preoperative antibiotic prophylaxis were collected. Patients were followed up for 30 days after surgery. The incidence of SSI infections was 9.2%. A significant increase was associated with a prolonged preoperative hospital stay, prolonged surgery, contaminated wounds and presence of the drain.

The most common organism was Staphylococcus aureus (24.3%) then Klebsiella pneumonia (18.5%). MRSA constituted 68% of S. aureus, ESBL-producing Gram negative bacilli 41.8% and multidrug-resistant 25.4%. This is an insight to risk factors associated with SSI, the causative pathogens and their sensitivity in our hospital that can help in updating the preoperative antimicrobial prophylaxis.

Keywords: Surgical site infection; Surveillance; Preoperative antibiotics policy; Antimicrobial prophylaxis.

Dept. of Clinical & Chemical Pathology

25. Enhanced Interpretation of Newborn Screening Results Without Analyte Cutoff Values

Melanie Downing, Yannis Dotsikas and Yannis L. Loukas

Genetics in Medicine, 14 (7): 648-655 (2012) IF: 4.762

To improve quality of newborn screening by tandem mass spectrometry with a novel approach made possible by the collaboration of 154 laboratories in 49 countries.

Methods: A database of 767,464 results from 12,721 cases affected with 60 conditions was used to build multivariate pattern recognition software that generates tools integrating multiple clinically significant results into a single score. This score is determined by the overlap between normal and disease ranges, penetration within the disease range, differences between conditions, and weighted correction factors.

Results: Ninety tools target either a single condition or the differential diagnosis between multiple conditions. Scores are expressed as the percentile rank among all cases with the same condition and are compared to interpretation guidelines. Retrospective evaluation of past cases suggests that these tools could have avoided at least half of 279 false-positive outcomes caused by carrier status for fatty-acid oxidation disorders and could have prevented 88% of known false-negative events.

Conclusion: Application of this computational approach to raw data is independent from single analyte cutoff values. in Minnesota, the tools have been a major contributing factor to the sustained achievement of a false-positive rate below 0.1% and a positive predictive value above 60%.

Keywords: Cutoff values; False-positive rate; Inborn errors of metabolism; Newborn screening; Positive predictive value.

26. Evaluation of Blood Supply Operation and Infectious Disease Markers in Blood Donors During the Egyptian Revolution

Eiman Hussein and Jun Teruya

Transfusion, 52: 2321-2328 (2012) IF: 3.217

Background: the Egyptian revolution took place on January 25, 2011. Millions of protesters demanded the overthrow of the Egyptian president's regime. Many people suffered from life-threatening injuries after violent clashes between police and protesters.

Study Design and Methods: the overall management of the blood bank operation at Cairo University Hospital was described, in an attempt to evaluate blood safety and establish a standard effective plan to manage blood supply during crisis.

Results: Three days after the uprising, thousands of Egyptians rushed to the hospital to alleviate the blood shortage. A total of 3425 units were collected in 3 days and thousands of donors were turned away. an error delayed processing of 1000 units and they were used as stored whole blood. Apheresis platelets were donated by protesters who were particularly motivated to donate for two victims with liver injury. the usual positive rate of hepatitis C virus (HCV) antibody in Egyptian donors is 3.8%. However, the positive rate of HCV markers in the collected units was only 1.6%. the mean age of donors during the revolution was 31.7 10.4 years while the usual mean age of donors is 39.2 8.5 years. Operating theaters were used only for emergencies. A blood surplus developed that met the hospital needs for 1 month.

Conclusion: Revolution resulted in an influx of firsttime donors with a relatively low positive rate of HCV antibody. to be prepared for disasters, a systematic approach to spread donors evenly on a daily basis is needed.

Keywords: Hcv; Hbv; Hiv; Blood supply operation; Disasters.

27. Socioeconomic Impact on Device-Associated Infections in Pediatric Intensive Care Units of 16 Limited-Resource Countries: International Nosocomial Infection Control Consortium Findings

Victor D. Rosenthal, William R. Jarvis, Silom Jamulitrat, Cristiane Pavanello Rodrigues Silva, Bala Ramachandran, Lourdes Dueńas, Vaidotas Gurskis, Gulden Ersoz, Marìa Guadalupe Miranda Novales, Ilham Abu Khader, Khaldi Ammar, Nayide Barahona Guzmàn, Josephine Anne Navoa-Ng, Zeinab Salah Seliem, Teodora Atencio Espinoza, Cheong Yuet Meng and Kushlani Jayatilleke

Pediatr Crit Care Med, 13 (4): 1-8 (2012) IF: 3.129

Objectives: We report the results of the International Nosocomial Infection Control Consortium prospective surveillance study from January 2004 to December 2009 in 33 pediatric intensive care units of 16 countries and the impact of being in a private vs. public hospital and the income country level on device-associated health care-associated infection rates. Additionally, we aim to compare these findings with the results of the Centers for Disease Control and Prevention National Healthcare
Safety Network annual report to show the differences between developed and developing countries regarding device-associated health care-associated infection rates.

Patients and Methods: A prospective cohort, active device-associated health care-associated infection surveillance study was conducted on 23,700 patients in International Nosocomial Infection Control Consortium pediatric intensive care units. the protocol and methodology implemented were developed by International Nosocomial Infection Control Consortium. Data collection was performed in the participating intensive care units. Data uploading and analyses were conducted at International Nosocomial Infection Control Consortium headquarters on proprietary software. Device-associated health care-associated infection rates were recorded by applying Centers for Disease Control and Prevention National Healthcare Safety Network device-associated infection definitions, and the impact of being in a private vs. public hospital and the income country level on device-associated infection risk was evaluated.

Interventions: None. Measurements and Main Results: Central line-associated bloodstream infection rates were similar in private, public, or academic hospitals (7.3 vs. 8.4 central line-associated bloodstream infection per 1000 catheter-days [$p < .35$ vs. 8.2; $p < .42$]). Central line-associated bloodstream infection rates in lower middle-income countries were higher than low-income countries or upper middle-income countries (12.2 vs. 5.5 central lineassociated bloodstream infections per 1000 catheter-days [$p < .02$ vs. 7.0; $p < .001$]). Catheter-associated urinary tract infection rates were similar in academic, public and private hospitals:
(4.2 vs. 5.2 catheter-associated urinary tract infection per 1000 catheter- days [p .41 vs. 3.0; p .195]). Catheter-associated urinary tract infection rates were higher in lower middle-income countries than low-income countries or upper middle-income countries (5.9 vs. 0.6 catheter-associated urinary tract infection per 1000

catheter-days [p < .004 vs. 3.7; p < .01]). Ventilator-associated pneumonia rates in academic hospitals were higher than private or public hospitals: (8.3 vs. 3.5 ventilator-associated pneumonias per 1000 ventilator-days [p < .001 vs. 4.7; p < .001]). Lower middleincome countries had higher ventilator-associated pneumonia rates than low-income countries or upper middle-income countries: (9.0 vs. 0.5 per 1000 ventilator-days [p < .001 vs. 5.4; p <.001]). Hand hygiene compliance rates were higher in public than academic or private hospitals (65.2% vs. 54.8% [p < .001 vs.13.3%; p < .01]).
Conclusions: Hospital type and country socioeconomic level influence device-associated infection rates in developing countries and need to be considered when comparing device-associated infections from one country to another.

Keywords: Bacteremia; Bloodstream Infection; Catheter-Associated; Urinary Tract Infection.

28. The Association between Hepatitis C Virus Infection, Genetic Polymorphisms of Oxidative Stress Genes and B-Cell Non-Hodgkin'S Lymphoma Risk in Egypt

Hala Farawela, Mervat Khorshied, Iman Shaheen, Heba Gouda, Aya Nasef, Nelly Abulata, Hebat-Allah Mahmoud, Hamdy M. Zawam and Somaia M. Mousa

Infect Genet Evol, 12: 1189-1194 (2012) IF: 3.128

Hepatitis C virus (HCV) has been postulated to be an etiological agent for lymphoid malignancies. Polymorphisms in oxidative stress genes as; superoxide dismutase (SOD2), glutathione peroxidase (GPX1), catalase (CAT), myeloperoxidase (MPO) and nitric oxide synthase (NOS2) may influence non-Hodgkin's lymphoma (NHL) risk. HCV screening and polymorphisms in these five genes coding for antioxidant enzymes were studied in 100 Egyptian patients with B cell-NHL and 100 controls to clarify the association between HCV infection, oxidative stress genes polymorphisms and B cell-NHL risk.
A significantly higher prevalence of HCV infection was detected among NHL patients relative to controls and this carried a 14-fold increased NHL risk (odds ratio (OR) = 14.3, 95% confidence interval (CI) = 5.4–38.3, p < 0.0001). GPX1 and MPO genetic polymorphisms conveyed increase in B-NHL risk (OR = 3.3, 95% CI = 1.4–7.4, p = 0.004 and OR = 4.4, 95% CI = 1.3–14.2, p = 0.009 respectively).
Further analyses stratified by HCV infection revealed that concomitant HCV infection and GPX1 gene polymorphism had a synergetic effect on NHL risk with an OR of 15 (95%CI = 2.2–69.6, p < 0.0001). in addition, combined HCV infection and MPO gene polymorphisms had a pronounced NHL risk (OR = 9.2, 95%CI = 2.5–33.9, p < 0.0001). SOD2, CAT and NOS2 genetic polymorphisms were not found to confer increased NHL risk. This study revealed that HCV infection is a risk factor for NHL in Egypt. Polymorphisms in GPX1 and MPO genes may influence NHL risk in HCV infected Egyptian patients. Larger scale studies are warranted to establish this genetic susceptibility for NHL.

Keywords: Hcv; Oxidative stress genes; Genetic polymorphism; Antioxidant enzymes; B-Nhl; Nhl; Risk.

29. Viral Etiologies of Lower Respiratory Tract Infections among Egyptian Children Under Five Years of Age

Caroline F Shafik, Emad W Mohareb, Aymen S Yassin, Madgy A Amin, Amani El Kholy, Hanaa El-Karaksy and Fouad G Youssef

Bmc Infectious Diseases, (2012) IF: 3.118

Background: Lower respiratory tract infections (LRTI) are responsible for a considerable number of deaths among children, particularly in developing countries. in Egypt and the Middle East region, there is a lack of data regarding the viral causes of LRTI. in this study, we aimed to identify the relative prevalence of various respiratory viruses that contribute to LRTIs in young children. Although, nucleic acid-based methods have gained importance as a sensitive tool to determine the viral infections, their use is limited because of their prohibitive cost in low-income countries. Therefore, we applied three different laboratory methods, and presented the different virus prevalence patterns detected by each method.
Methods: We collected nasopharyngeal aspirate samples, demographic data and, clinical data from 450 children under five years of age who presented with LRTI at Abou El Reesh hospital in Cairo during a one-year period. to identify the viral causes of the LRTI we used direct fluorescence assay, real-time reverse-transcriptase polymerase chain reaction (rt-RT-PCR), and shell vial culture. We tested for eight major respiratory viruses.
Results: Two hundred sixty-nine patients (59.9%) had a viral infection, among which 10.8% had a co-infection with two or more viruses. by all three methods, respiratory syncytial virus (RSV) was the most predominant, and parainfluenza virus type 2 (HPIV-2), influenza B virus (FLUBV) were the least predominant. Other viral prevalence patterns differed according to the detection method used. the distribution of various viruses among different age groups and seasonal distribution of the viruses were also determined.
Conclusions: RSV and human adenovirus were the most common respiratory viruses detected by rt-RT-PCR. Co-infections were found to be frequent among children and the vast majority of co-infections were detected by nucleic acid-based detection assays.

Keywords: Egypt, Direct fluorescence assay, Lower respiratory tract infections, Pediatric, Polymerase chain reaction, Respiratory viruses, Shell vial culture.

30. Tumor Necrosis Factor Alpha-308 and Lymphotoxin Alpha+252 Genetic Polymorphisms and the Susceptibility to Non-Hodgkin Lymphoma in Egypt

Azza Ibrahim, Hala Abdel Rahman, Mervat Khorshied, Rania Samia, Nelly Nasra and Ola Khorshid

Leukemia Res, 36 (6): 694-698 (2012) IF: 2.923

Genetic polymorphism within the regulatory regions of tumor necrosis factor-alpha (TNF-α) and Lymphotoxin-alpha (LT-α) may be involved in the development of lymphoid malignancies. the aim of the current study was to investigate the effect of TNFα -308 and LTα+252 genetic polymorphism on suscepti-bility to non-Hodgkin lymphoma (NHL) in Egypt. Genotyping of the studied genes by restriction fragment length polymorphism polymerase chain reaction was conducted on 84 NHL and 100 healthy controls and revealed that TNFα-308 homotype (AA) was significantly higher in NHL patients and conferred sixfold increased risk of NHL (OR = 5.9, 95%CI = 2.3–16.1). Moreover,

TNFα/LTα high-producer haplotypes were significantly higher in NHL patients and conferred increased risk of NHL (OR = 4.59, 95%CI = 2.19–9.42).

Keywords: Tumor necrosis factor; Alpha (Tnf-α) lymphotoxin; Alpha (Lt- α) Nhl; Pcr- Rflp; Egypt.

31. The Link between Genetic Polymorphism of Glutathione-S-Transferases, Gstm1, and Gstt1 and Divuse Large B-Cell Lymphoma in Egypt

Hala A. Abdel Rahman, Mervat M. Khorshied, Haidy H. Elazzamy and Ola M. Khorshid

Journal of Cancer Research and Clinical Oncology, 138: 1363-1368 (2012) IF: 2.558

Background: Divuse large B-cell lymphoma (DLBCL) is the most common subtype of non-Hodgkin lymphoma. A number of studies have examined the role of genetic polymorphisms in the risk of DLBCL, and several variants have been identiWed as potential susceptibility genes, of those glutathione-S-transferases T1 and M1 (GSTT1 and GSTM1).
Aim of the work: the aim of the current study was to investigate the inXuence of inherited genetic polymorphisms of GSTM1 and GSTT1 genes on the susceptibility to DLBCL in Egypt.
Methods: Genotyping of the candidate genes was performed for 71 Egyptian DLBCL patients and 100 age- and gender-matched healthy controls by multiplex polymerase chain reaction technique.
Results: the frequencies of GSTT1 null, GSTM1 null, and dual null genotypes among DLBCL patients were 47.9,52.1, and 23.9 % respectively.
Conclusion: GSTT1 null genotype conferred almost fourfold increased risk of DLBCL (OR = 3.9, 95 % CI = 1.97–7.75), and the risk increased when conWned to male patients (OR = 4.4, 95 % CI = 1.57–12.63), while GSTM1 null genotype was not associated with DLBCL risk. Further studies on the functional consequences of GSTT1 and GSTM1 genetic polymorphisms would pave the way to declare their role in the pathogenesis of DLBCL or as possible predictors for response to therapy.

Keywords: Dlbcl; Gstt1; Gstm1; Genetic Susceptibility; Egypt.

32. Device-Associated Nosocomial Infection Rates in Intensive Care Units at Cairo University Hospitals: First Step Toward Initiating Surveillance Programs in A Resource-Limited Country

El-Kholy A, Saied T, Gaber M, Younan MA, Haleim MM, El-Sayed H, El-Karaksy H, Bazara'a H. and Talaat M.

Am J Infect Control, 40 (6): 216-220 (2012) IF: 2.396

Background: Device associated infections (DAIs) have major impact on patient morbidity and mortality.
Methods: This study involved active prospective surveillance to measure the incidence of DAIs, evaluate microbiological profiles, and investigate excessive mortality in intensive care units (ICUs) in 3 hospitals of Cairo University applying the US Centers for Disease Control and Prevention's National Healthcare Safety Network case definitions for ventilator-associated pneumonia (VAP), catheter-associated urinary tract infection (CAUTI), and central-line associated bloodstream infection (CLABSI). Data were collected between March 2009 and May 2010.
Results: A total of 1,101 patients were hospitalized for a total of 10,869 days, had 4,734 device-days, and acquired 97 DAIs, with an overall rate of 20.5/1,000 ICU days. VAP was the most commonly identified infection (88.7%); followed by CLABSI (8.2%) and CAUTI (3.1%). Excess mortality was 48% (relative risk, 1.9; P < .001) for CAUTI, 12.9% (relative risk, 1.2; 95% confidence interval, 1.1-1.4; P < .05) for VAP, and 45.7% for CLABSI. Acinetobacter baumannii was the most frequently isolated pathogen (36.1%), followed by Klebsiella pneumoniae (29.2%) and Pseudomonas aeruginosa (22.2%). High antimicrobial resistance was identified, with 85% of A baumannii isolates resistant to ciprofloxacin and imipenem, 76% of K pneumoniae isolates were extended-spectrum ?-lactamase producers, and 56.3% P aeruginosa isolates resistant to imipenem (56.3%).
Conclusion: High rates of DAI and antimicrobial resistance require strengthening infection control, instituting surveillance systems, and implementing evidence-based preventive strategies.

Keywords: Device associted infection; Icu infection; Surveillance; Clabsi; Vap; Cauti.

33. DNA Methyltransferase 3B (Dnmt3b -579 G>T) Promotor Polymorphism and the Susceptibility to Pediatric Immune Thrombocytopenic Purpura in Egypt

Mervat Mamdooh Khorshied and Mona Kamal El-Ghamrawy

Gene, 511 (2012): 34-37 (2012) IF: 2.341

Idiopathic thrombocytopenic purpura (ITP) is an autoimmune disease characterized by increased platelet destruction. Although the etiology of ITP remains unclear, it is accepted that both environmental and genetic factors play an important role in the development of the disease. the present study aimed at exploring a novel molecular determinant that may influence the susceptibility and course of ITP in Egyptian children. to achieve our aim, genotyping of DNMT3B-579 G>T promotor polymorphism by polymerase chain reaction restriction fragment length polymorphism (PCR-RFLP) assay. The current study was conducted on 140 ITP patients and 150 age and gender matched healthy controls. The results obtained revealed that DNMT3B ?579 TT homotype was significantly higher in ITP patients and conferred almost three fold increased risk of ITP (OR=3.16, 95%CI=1.73–5.79). There was no statistically significant difference between ITP patients with wild or mutant genotypes as regards their clinical or laboratory data. Furthermore, there was no statistical difference in the distribution of DNMT3B -579 G>T genotypes between acute and chronic ITP patients.
in conclusion, DNMT3B-579 G>T promotor polymorphism represents a novel genetic risk factor for ITP but not a predictor for tendency to chronicity in pediatric ITP in Egypt.

Keywords: Itp; Dnmt3b -579 G>T Promotor; Polymorphism.

34. Angiotensin Converting Enzyme (Ace) Serum Level and Gene Polymorphism in Egyptian Patients with Systemic Lupus Erythrematosus

D Abbas, Y Ezzat, E Hamdy and M Gamil

Lupus, 21: 103-110 (2012) IF: 2.337

Objectives: to investigate the association of angiotensin-converting enzyme (ACE) gene polymorphism and serum ACE

level among Egyptian SLE patients and its relation to disease activity parameters.
Subjects and methods: we enrolled 50 Egyptian female systemic lupus erythematosus (SLE) patients and 29 healthy controls. Measurement of serum ACE level was done using ELISA, and the ACE genotype was determined by polymerase chain reaction using genomic DNA from peripheral blood.
Results: a significant difference was found in ACE genotypes between SLE patients and controls (2¼7.84, p¼0.02). the frequency of ACE DD versus (DI and II) genotypes was significantly higher in SLE patients compared with controls (2¼5.57, p ¼ 0.018 and OR for risk of SLE was 3.1 with 95% confidence interval: 1.198.06). Mean serum ACE level was significantly higher in the SLE group compared with controls (p¼0.006). Subjects with DD genotype had a significantly higher mean level than those with DI (p¼0.015) and II genotypes (p¼0.02). Lupus nephritis patients had a significantly higher frequency of DD versus DI and II genotypes compared with lupus patients without nephritis (Fisher's exact test, p¼0.025) and controls (2 ¼8.74, p¼0.003). SLE patients with vasculopathy had a significantly higher frequency of DD versus DI/II genotypes compared with SLE patients without vasculopathy (Fisher's exact test, p¼0.04) and controls (2¼9.84 and p¼0.002). Mean serum ACE level was significantly higher in the lupus nephritis and SLE patients with vasculopathy compared with controls (p¼0.008, p¼0.001, respectively).
Significant positive correlations were found between serum ACE level and serum creatinine and 24 h proteinuria (p¼0.03, 0.009, respectively). SLE patients with DD genotype had a statistically significant higher mean SLEDAI score than those with (DI/II) genotypes (p¼0.02). Significant positive correlation was found between serum ACE levels and SLEDAI scores (p¼0.04).
Conclusion: ACE genotype and subsequently serum ACE level could be associated with the disease activity of Egyptian SLE patients; in addition, ACE deletion polymorphism might be used as one of the predictive factors for the activity of SLE. Further studies on a larger number of patients should be done to determine the exact prevalence ofACEgene polymorphism among Egyptian SLE patients. Lupus (2012) 21, 103–110.

Keywords: Ace I/D Gene Polymorphism; Lupus Nephritis; Serum Ace Level; Sle; Sledai; Vasculopathy.

35. Evaluation of Multiplex Nested Polymerase Chain Reaction for Routine Hepatitis C Virus Genotyping in Egyptian Patients

Mohamed Abbas Shemis, Dina Mohamed El-Abd, Dalia Ibrahim Ramadan, Mohamed Ibrahim El-Sayed, Bassem Shenoda Guirgis, Mohamed Ali Saber and Hassan Mohamed El- Said Azzazy

Hepat Mon, 12(4): 265-270 (2012) IF: 2.19

Background: at least six HCV (hepatitis C virus) genotypes are unequally distributed worldwide. HCV genotyping guides the selection of treatment regimens and provides important epidemiological markers that enable the outbreak source to be traced and the spread of disease to be controlled. in Egypt, there is an increasing need for cost-effective, fast, and easily performable HCV genotyping assays.Recently, a multiplex PCR assay was developed to determine HCV genotypes. It employs genotype-specific primers, based on sequences of the entire core region and part of the 5'UTR of the genome.
Objectives: in this study, we compared a simple, new, modified multiplex PCR system for HCV genotyping with a commercially available line probe assay (INNO-LiPA) that is based on reverse hybridization.
Patients and Methods: Serum samples from chronic HCV Egyptian patients (n = 73) were genotyped using the modified multiplex PCR assay, and genotypes were verified using the INNO-LiPA HCV II assay.
Results: the modified multiplex PCR method was able to type HCV-4 in 65 of 70 typeable samples (92.86%) and had 100% concordance with the INNO-LiPA assay.
Conclusions: Genotype 4 was the most prevalent genotype in our study. Based on our results, the modified multiplex nested PCR assay is a sensitive and inexpensive alternative for HCV genotyping and can be used in routine diagnostic laboratories. INNO-LiPA may be useful as a second-line assay for genotyping samples that are indeterminate by multiplex PCR. This approach will effect better treatment optimization and a reduction of the spread of HCV.

Keywords: Hepatitis C; Multiplex polymerase chain reaction; Branched DNA signal amplification; Assay.

36. Association of Folate Intake, Dietary Habits, Smoking and Cox-2 Promotor 765G > C Polymorphism with K-Ras Mutation in Patients with Colorectal Cancer

Manal M. Kamal, Omar Z. Youssef, Ahmed N. Lotfy, Eman T. Elsaed and May M.T. Fawzy

Journal of the Egyptian National Cancer Institute, 24: 115-122 (2012) IF: 2

Background: Understanding the role of environmental and molecular influences on the nature and rate of K-ras mutations in colorectal neoplasms is crucial. COX-2 polymorphisms 765G >C may play a role in carcinogenic processes in combination with specific life-style conditions or dependent on the racial composition of a particular population.
If mutational events play an important role in colorectal carcinogenesis sequence, one can hypothesize that modification of these events by life-style or other factors would be a useful prevention strategy.
Aim of work: to explore the association between K-ras mutation and potential variables known or suspected to be related to the risk of colorectal cancer (CRC) as well as determining the possible modulating effect of the COX-2 polymorphism, 765G> C.
Subjects and methods: the study was conducted on 80 patients with colorectal cancer from Tropical Medicine and Gastrointestinal Tract endoscopy Departments and those attending clinic of the National Cancer Institute, Cairo University during the period extending from April 2009 to March 2010. Full history taking with emphasis on the risk factors of interest, namely age, sex, family history, smoking and dietary history. Serum CEA and CA19-9, RBCs folic acid and occult blood in stoolwere done to all samples. K-ras protooncogene mutation at codon 12 (exon 1) and cyclooxygenase 2 (COX-2) 765G > C polymorphism were determined by PCR-RFLP.
Results: the K-ras mutation was positive in 23 (28.7%) patients. COX-2 polymorphism revealed GG in 62.5%, GC in 26.2 % and CC genotype was found in 11.3 % of cases. the mean red blood cell folic acid level was lower in the K-ras positive group (100.96 ± 51.3 ng/ml) than the negative group (216.6± 166.4 ng/ml), (P < 0.01). Higher folate levels were found in males than females

(median= 173 ng/ml and 85 ng/ml; respectively, P = 0.002) with adjusted odds ratio (OR) of 0.984.
Only, the RBCs folate (P = 0.0018) followed by gender (P = 0.036) contributed significantly in the discrimination between patients prone to develop K-ras mutation and those who are not.
Conclusion: RBC folic acid was significantly deficient in CRC (colorectal cancer) patients with Kras mutations in comparison with CRC patients free of the mutations, suggesting that folic acid may be a risk factor for K-ras mutation development.

Keywords: Folate; Colorectal cancer; K-Ras; Cyclooxygenase2.

37. Hematopoietic Stem Cell Mobilization Into the Peripheral Circulation in Patients with Chronic Liver Diseases

Lobna Y Ghanem, Mona Mf Nosseir, Abeya A Lotfi, Ayat S Mohamed, Refaat A Ibrahim,Moutaz H Hassanein, Eman Mansour, Manal M Makhlouf, Yasser M Fouad and Hisham R El-Khayat

J Digest Dis, 13: 571-578 (2012) IF: 1.589

Objective: the present study was aimed to investigate and compare the kinetics of bone marrow derived hematopoietic stem cells (BMHSC) migration in the peripheral blood and liver in response to liver injury in patients with chronic liver disease (CLD).
Methods: in all, 45 CLD patients staged with Child–Pugh A, B and C and 15 healthy participants were evaluated for the concentration of circulating BMHSC by a flow cytometric analysis of CD133+/ CD34+ cells. in addition, homing BMHSC and hepatic progenitors were assessed by the immunohistochemical detection of CD133+ and OV6+ cells in liver biopsy specimens from Child–Pugh A and B patients.
Results: No significant difference in the percentage of circulating CD133+/CD34+ cells was observed among all groups of patients. in liver tissues, OV6+ cells increased significantly in Child–Pugh B cases (P < 0.05), while CD133+ cells were distributed sparsely in the periportal region in Child–Pugh A and B patients. OV6+ cells were significantly correlated with CD34+ cells but not with CD133+ cells in Child–Pugh A and B patients (P < 0.01 and P < 0.05, respectively).
Conclusions: Various degrees of severity in CLD neither evoked the mobilization of BMHSC into the circulation nor triggered their homing into liver tissue, thus excluding extrahepatic stem cell-mediated repair. the recovery process seems to be dependent on proliferating endogenous liver progenitors (OV6+ cells).

Keywords: Liver diseases; Hepatic progenitors; Oval cells; Hematopoietic stem cells.

38. Mesenchymal Stem Cells are A Rescue Approach for Recovery of Deteriorating Kidney Function

Mervat El-Ansary, Gamal Saadi and Samah M Abd El-Hamid

Nephrology, 17 (2012): 650-657 (2012) IF: 1.311

Aim: Stem cell (SC) therapy for chronic kidney disease (CKD) is urgently needed. the use of mesenchymal stem cells (MSC) is a possible new therapeutic modality. Our work aimed to isolate human MSC from adult bone marrow to improve kidney functions in CKD patients.
Methods: in our study 30 patients with impaired kidney function were included, their ages ranged from 22 to 68 years. They included 10 inactive glomerulonephritis patients due to systemic lupus erythromatosus (SLE) (group I), 10 renal transplantation cases (group II) and 10 patients of other aetiologies as the control group. Fifty millilitres of bone marrow was aspirated from the iliac bone, for separation of MSC.
Results: There was a highly statistically significant difference between both CD271 and CD29 before and after culture with increase of both markers at end of culture, P < 0.01. Finally 50–70 million MSC in 10 mL saline (0.7–1.0 ¥ 106 MSC/kg body weight) were infused intravenously in two divided doses one week apart. There was a highly statistically significant difference between each of serum creatinine and creatinine clearance levels before and after MSC injection at 1, 3 and 6 months post-infusion with SLE cases showing a greater decline of their serum creatinine and elevation of mean creatinine clearance levels after injection than transplantation and control groups, P < 0.05.
Conclusion: Mesenchymal stem cells therapy is a potential therapeutic modality for early phases of CKD.

Keywords: Chronic Kidney Disease; Glomerulonephritis; Mscs; Renal Transplantation; Tissue Repair.

39. Fcgriia and Fcgriiia Genetic Polymorphisms in A Group of Pediatric Immune Thrombocytopenic Purpura in Egypt

Eyada, Tayseer K., Farawela, Hala M, Khorshied, Mervat M., Shaheen, Iman A. Selim, Neama M. Khalifa and Iman A.S.

Blood Coagul Fibrin, 23 (1): 64-68 (2012) IF: 1.238

Immune thrombocytopenic purpura (ITP) is an acquired autoimmune disorder caused by the production of antiplatelet antibodies. the current case-control study aimed at detecting the frequency of FcgRIIa-131H/R and FcgRIIIa-158F/V genes polymorphism in Egyptian children with ITP as genetic markers for ITP risk, and to clear out their possible role in choosing the treatment protocols of ITP. to achieve this aim, FcgRIIa genotyping was tested by PCR-restriction fragment length polymorphism (RFLP) technique, whereas FcgRIIIa genotyping was tested by nested PCR followed RFLP analysis. the current casecontrol study was conducted on 92 children with ITP; 12 acute and 80 chronic cases and 90 controls. the V allele and FcgRIIIa FV heterotype were significantly higher in ITP patients and conferred increased ITP risk [odds ratio (OR)U1.96 and 2.55, respectively]. the frequency of FcgRIIa H allele was significantly higher among chronic ITP patients. in conclusion, FcgRIIIa gene polymorphism may contribute to susceptibility to ITP. Moreover, analysis of the FcgR polymorphisms in ITP patients could influence the effectiveness of medications and selection of the line of treatment.

Keywords: Childhood itp; Fcgr Iia; Fcgr Iiia; Pcr-Restriction Fragment length polymorphism.

40. Role of Soluble P-Selectin and Methylenetetrahydrofolate Reductase Gene Polymorphisms (677C>T) in Egyptian Patients with Venous Thromboembolism

Nehad M. Tawfik, Manal El. Deeb and Aml S. Nasr

Blood Coagul Fibrin, 23 (6): 537-542 (2012) IF: 1.238

Venous thromboembolism (VTE) is a significant problem for surgical and medical hospitalized patients, leading to the

possibility of serious illness and risk of death. the aim of the present study was to investigate soluble P-selectin levels and genetic polymorphisms in 5, 10-methylenetetrahydrofolate reductase (MTHFR 677C/T) and to evaluate its associations with VTE was the aim of work. the study involved 49 patients diagnosed as having VTE (as a patients group) as well as 24 apparently healthy volunteers (as controls group). All the participants included in the study were assessed for soluble serum P-selectin levels using the enzyme-linked immunosorbant assay technique. All the participants included in the study were genotyped for detection of MTHFR gene polymorphisms (677C >T) by restriction fragment length polymorphism. Concerning the results of soluble P-selectin, there were statisticallysignificant differences between the two groups (P U0.0210). Concerning the results of MTHFR gene polymorphisms, there were no statistically significant differences between the two groups regarding CT allele (P U0.8790), but there were highly statistically significant differences between the two groups regarding CC, TT alleles as well as CC/CT and TT/CT alleles (P <0.0001).According to our study, elevated soluble P-selectin levels as well as MTHFR gene polymorphisms are to be considered as independent risk factors for development of VTE, so it may be recommended to include P-selectin assay and detection of MTHFR gene polymorphisms when considering patients with thromboembolism even in the absence of any other predisposing factor.

Keywords: Enzyme-linked immunosorbant assay technique; Methylenetetrahydrofolate reductase; P-Selectin; Polymorphisms by restriction fragment length polymorphism; Thromboembolism.

41. Methylenetetrahydrofolate Reductase Gene Polymorphisms (677C > T and 1298A > C) in Egyptian Patients with Non-Hodgkin Lymphoma

Aml S. Nasr, Rania M. Sami and Noha Y. Ibrahim

Journal of Cancer Research and Therapeutics, 8 (3): 355-360 (2012) IF: 0.656

Background: Folate metabolism plays an essential role in Deoxyribonucleic acid (DNA) synthesis and methylation processes. Deviations in the flux of the folate may affect the susceptibility to various cancers including lymphoma.
Aim: the aim of this study was to investigate the genetic polymorphisms in 5, 10-methylenetetrahydrofolate reductase (MTHFR 677C/T and 1298A/C) and to evaluate its associations with the risk of Non Hodgkin lymphoma.
Materials and Methods: the study included 50 patients with diffuse large B cell lymphoma (DLBCL) as well as 50 age matched apparently healthy volunteers (as control). All the subjects included in the study were genotyped for the detection of the MTHFR gene polymorphisms (677C > T and 1298A > C) by using restriction fragment length polymorphism (PCR-RFLP).
Results: There were highly statistically significant differences between the 2 groups with respect to results of PCR-RFLP for MTHFR677C?T polymorphism for CC genotype (P value = 0.001), statistically significant differences for CT (P value = 0.048) and TT) P value = 0.038) genotypes; however, no statistically significant differences regarding CC/CT or TT/CT alleles (P value = 0.052). Also, there were highly statistically significant differences between the patient and control groups with regards to the results of MTHFR1298 A/C polymorphism for the AA, AC genotypes as well as the AA/AC and CC/AC alleles (P value < .0001), and statistically significant difference regarding CC genotype) P value 0.0192).
Conclusion: in conclusion, this study demonstrated a significant association between the MTHFR polymorphisms and the risk of DLBCL. Thus the study could support that folate intake together with the genetic basis may help in modifying the risk to lymphoma.

Keywords: Methylenetetrahydrofolate reductase; Methylenetetrahydrofolate reductase gene polymorphisms; Non hodgkin lymphoma; Promoter polymorphisms; Restriction fragment length polymorphism; Risk.

42. GSTP1 and Cyp1a1 Gene Polymorphisms and Nonhodgkin Lymphoma

Noha Y. Ibrahim, Rania M. Sami and Aml S. Nasr

Lab Medicine, 43 (4): 12-16 (2012) IF: 0.359

Objective: to determine the association between genetic variants of GSTP1 and CYP1A1 enzymes and individual susceptibility to diffuse large B-cell lymphoma (DLBCL), as well as correlations with tobacco smoking.
Methods: Fifty patients with DLBCL and 50 apparently healthy volunteers were genotyped for detection of GSTP1 and CYP1A1 polymorphisms by the restriction fragment length polymorphism (RFLP) technique.
Results: for GSTP1 313 A?G polymorphism, statistically significant differences were observed between the DLBCL and control groups for the AA, AG, and GG genotypes, as well as the G allele. for CYP1A1 4889 A→G (M2) polymorphism, statistically significant differences were observed for the AA and AG genotypes and the G allele. the relationship of smoking status to susceptibility to DLBCL in the presence of these genetic polymorphisms revealed that smoking status had no effect.
Conclusion: GSTP1 313 A→G polymorphism is associated with a decreased risk of lymphoma, whereas CYP1A1 4889 A→G (M2) polymorphism is associated with an increased risk of lymphoma regardless of smoking status.

Keywords: Drug-metabolizing genes; Nonhodgkin lymphoma; Gstp1 and Cyp1a1 promoter polymorphisms; Risk; Tobacco smoking; Smoking status.

43. Studying the Effect of rhBAFF and BAFF-R-Fc Fusion Protein on Lymphocytes and Platelets in Children with Itp

Sahar Kamal, Nadia Sewelam, Doha Mokhtar, Rania Fawzy and Nouran Nabil

Life Science Journal, 9 (4): 2363-2369 (2012) IF: 0.075

Introduction: B cell activating factor, a member of tumor necrosis factor family, is a crucial homeostatic cytokine for B cells. It has been shown to enhance the expression of CD19+ cells and mediate the maturation of autoreactive B cells. BAFF is elevated in several autoimmune diseases including immune thrombocytopenic purpura(ITP). Increased survival of CD8+ T cells also may promote the apoptosis of platelets through cytotoxic T lymphocyte-mediated platelet lysis. Blockade of BAFF receptor has demonstrated a clinical benefit in immunologic diseases.
Methods: PBMCs and platelets from 15 acute ITP patients and 15 healthy controls were cultured with rhBAFF or a combination of

rhBAFF and BR3-Fc and then analyzed by flow cytometry for apoptosis of autologous platelets and/or CD19+, CD8+ and CD4+ cells. Results Blockade of BAFF receptor by BR3-Fc significantly increased the apoptosis of CD19+ cells in patients only and decreased the apoptosis of platelets in both patients and controls. Apoptotic CD8+ cells were significantly increased in patients only, following the addition of BR3-Fc.
Conclusion: These findings suggest that blockade of BAFF receptor (BR3-FC) could successfully correct the effects of BAFF by promoting the apoptosis of CD19+ and CD8+ cells and decreasing the apoptosis of platelets. Further research will indicate whether blocking BAFF-BR3 will have a therapeutic applicability in the management of ITP or not.

Keywords: Immune thrombocytopenic purpura; Baff; Cd19;- Cd8;- Cd4;- Platelets.

44. Study of Survivin and X-Linked Inhibitor of Apoptosis Protein (Xiap) Genes in Acute Myeloid Leukemia (Aml)

Azza Mostafa Ibrahim, Iman Maher Mansour, Manal Michel Wilson, Doha Abdel-Hamid Mokhtar, Amani Mohamed Helal and Hanan Mohamed Al Wakeel

Lab Hematol., 18 (1): 1-8 (2012)

Apoptosis deregulation is important for cancer development, chemotherapy response, and prognosis. Survivin and X-linked inhibitor of apoptosis protein (XIAP) are 2 members of the inhibitor of apoptosis proteins family (IAP). We used semi-quantitative reverse transcriptase polymerase chain reaction (RT-PCR) to determine the levels of expression of survivin and XIAP in 30 patients with de novo acute myeloid leukemia (AML) and 20 age- and sex-matched healthy volunteers. Survivin and XIAP overexpression were detected in 36.7% and 43.3% of cases, respectively. Patients with overexpression of either survivin or XIAP showed unfavorable response to chemotherapy in 81.2% and 91.7%, respectively. Also, these cases showed shorter median survival time (30 days) compared to patients with normal expression of either survivin or XIAP (150 days and 180 days). Patients with overexpression of both survivin and XIAP showed unfavorable response to induction therapy in 100% of the patients and the shortest median survival (30 days). These findings suggest that survivin and XIAP may have a role in leukemogenesis and provide prognostic information.

Keywords: Apoptosis; Survivin; X-Linked inhibitor of apoptosis protein (Xiap); Acute myeloid leukemia (Aml).

45. Role of Serum Anti-C1q Antibodies as A Biomarker for Nephritis Activity in Pediatric and Adolescent Egyptian Females with Sle

Mohamed Salah Eldin Mohamed Abdel Kader, Mohamed Momtaz Abd Elaziz and Dina Hisham Ahmed

Expert Opinion on Medical Diagnostics, 6 (6): 489-498 (2012)

Objective: to evaluate serum anti-C1q antibodies as a biomarker of systemic lupus erythematosus (SLE) flare and as a proposed noninvasive alternative to renal biopsy which is still the "gold standard" to determine renal activity in SLE.
Methods: Serum anti-C1q antibodies were measured in our patients (all were females), they were followed at the nephrology and pediatric nephrology units at the Faculties of Medicine of Cairo University and Misr University for science and technology (MUST). Our study included 120 patients in the pediatric and adolescent age group and they were categorized into three groups with (mean ± SD of 16.7 ± 3, 16.1 ± 2, 15.9 ± 3) respectively: Group 1 including 40 patients with SLE and active lupus nephritis; Group 2 including 40 patients with SLE and without active lupus nephritis, but with some extra renal activity mainly arthritis; and Group 3 including 40 healthy subjects.
Results: Anti-C1q antibodies were found to be significantly higher in patients with active lupus nephritis than those without active nephritis than control individuals with a median (range) of [27.5 (14 – 83), 9 (2.5 – 30), 7 (2 – 13)] respectively. in those with active lupus nephritis, anti-C1q was found to correlate significantly with other parameters assessing lupus nephritis activity like C3 ($r = -0.33$, $p < 0.04$), C4 ($r = -0.32$, $p < 0.044$), daily urinary protein excretion ($r = 0.32$, $p < 0.036$), renal SLEDAI ($r = 0.64$, $p < 0.001$), and activity index ($r = 0.71$, $p < 0.001$).
Conclusions: Anti-C1q antibodies can be used as a considerable marker for LN activity in that age group with 97.5% sensitivity and 65% specificity with the cutoff level 12 U/l. These levels are clearly higher than those for traditional markers of disease activity such as C3/C4 consumption and anti-dsDNA.

Keywords: anti-C1q antibodies, anti-dsDNA, C3, C4, ELISA, juvenile systemic lupus erythematosus, lupus nephritis, renal SLEDAI, urinary proteins.

46. Device-Associated Infection Rates in Adult and Pediatric Intensive Care Units of Hospitals in Egypt. International Nosocomial Infection Control Consortium (Inicc) Findings

Ossama Rasslana, Zeinab Salah Seliemb, Islam Abdullorziz Ghazic, Muhamed Abd El Saboura, Amani Ali El Kholyb, Fatma Mohamed Sadeqc, Mahmoud Kalila, Doaa Abdel-Azizb, Hosnia Yousif Sharafc, Adel Saeeda, Hala Aghab, Sally Abd El-Wadood Zein El-Abdeenc, Maha El Gafareya, Amira El Tantawyb, Lamia Fouada, Mona M. Abel-Haleimb, Tamer Muhameda, Hedya Saeeda and Victor D. Rosenthal

J. Infect Public Health, 5: 394-402 (2012)

Purpose: to determine the rate of device-associated healthcare-associated infections (DA-HAIs) at a respiratory intensive care unit (RICU) and in the pediatric intensive care units (PICUs) of member hospitals of the International Nosocomial Infection Control Consortium (INICC) in Egypt.
Materials and Methods: A prospective cohort DA-HAI surveillance study was conducted from December 2008 to July 2010 by applying the methodology of the INICC and the definitions of the NHSN-CDC.
Results: in the RICU, 473 patients were hospitalized for 2930d and acquired 155 DA-HAIs, with an overall rate of 32.8%. There were 52.9 DA-HAIs per 1000 ICU-days. in the PICUs, 143 patients were hospitalized for 1535d and acquired 35 DA-HAIs, with an overall rate of 24.5%. There were 22.8 DA-HAIs per 1000 ICU-days. the central line-associated blood stream infection (CLABSI) rate was 22.5 per 1000 line-days in the RICU and 18.8 in the PICUs; the ventilator-associated pneumonia (VAP) rate was 73.4 per 1000 ventilator-days in the RICU and 31.8 in the PICUs; and the catheter-associated urinary tract infection (CAUTI) rate was 34.2 per 1000 catheter-days in the RICU.

Conclusions: DA-HAIs in the ICUs in Egypt pose greater threats to patient safety than in industrialized countries, and infection control programs, including surveillance and guidelines, must become a priority.

Keywords: Device associted infection; Icu infection; Surveillance; Clabsi; Vap; Cauti.

47. Prevalence of Occult Hepatitis C Virus in Egyptian Patients with Chronic Lymphoproliferative Disorders

Samar Samir Youssef, Aml S. Nasr and Taher El Zanaty

Hepatitis Research and Treatment., (2012)

Background: Occult hepatitis C virus infection (OCI) was identifed as a new form of Hepatitis C virus (HCV), characterized by undetectable HCV antibodies and HCV RNA in serum, while HCV RNA is detectable in liver and peripheral blood cells only. **Aim**: the aim of this study was to investigate the occurrence of OCI in Egyptian patients with lymphoproliferative disorders (LPDs) and to compare its prevalence with that of HCV in those patients.

Subjects and Methods: the current study included 100 subjects, 50 of them were newly diagnosed cases having di?erent lymphoproliferative disorders (patients group), and 50 were apparently healthy volunteers (controls group). HCV antibodies were detected by ELISA, HCV RNA was detected in serum and peripheral blood mononuclear cells (PBMCs) by reverse transcription polymerase chain reaction (RT-PCR), and HCV genotype was detected by INNO-LiPA.

Results: OCI was detected in 20% of patients group, compared to only 4% OCI in controls group. HCV was detected in 26% of patients group with a slightly higher prevalence. There was a male predominance in both HCV and OCI. All HCV positive patients were genotype 4.
Conclusion: Our data revealed occurrence of occult HCV infection in Egyptian LPD patients at a prevalence of 20% compared to 26% of HCV.

Keywords: Hcv; Chronic Lymphoproliferative Disorders; Hcv Antibodies; Hcv Rna; Rt-Pcr.

48. Iron Load and Serum Hepcidin in Hepatitis C Virus-Related Hepatocellular Carcinoma

Nehad M. Tawfik, Mona A. Hegazy, Inas A. Abdel Maksoud and Aml S. Nasr

Euroasian Journal of Hepatology and Gastroentrology, 2 (1): 24-27 (2012)

Hepatocellular carcinoma (HCC) is a major cause of death worldwide, and chronic inflammatory stress caused by hepatitis viruses plays a major role in HCC carcinogenesis. the aim of the present study was to investigate the expression of serum hepcidin and its correlation with iron overload in HCC.
Study Design: the study was carried out on 50 hepatitis C virus (HCV) related HCC cirrhotic patients (Group I) and 20 age-matched non-HCC liver cirrhosis patients as control (Group II).
Results: There was no relationship between the serum hepcidin level and the histological grade of HCC (P = 0.1492), or multiplicity of focal lesion (P = 0.0719), however, hepatic iron deposition was significant higher in HCC than non HCC cirrhotic patients (P < 0.005).
Conclusion: the current study suggests a positive association of hepatic iron score, but the role of hepcidin in this context remains to be elucidated.

Keywords: Hepatocellular carcinoma; Serum hepcidin level; Hcv.

49. The Clinical Significance of Methylenetetrahydrofolate Reductase (Mthfr) Polymorphisms in Acute Lymphoblastic Leukemia

Hanaa H. Arnaout, Mervat M. Khorshied, Iman A. Shaheen, Heba M. Gouda, Noha Y. Ibrahim and Naglaa F. Koura

Comparative Clinical Pathology, (2012)

Acute lymphoblastic leukemia (ALL) is the most common pediatric malignancy. Genetic polymorphisms in the folate metabolic pathway may contribute to the susceptibility to childhood ALL because they affect the DNA synthesis, methylation, and repair. the most common polymorphisms are methylenetetrahydrofolate reductase (MTHFR) C677T and A1298C. the current study aimed at detecting the frequency of these two genetic polymorphisms in de novo ALL patients, and to clarify their impact on the response to induction chemotherapy, as well as treatment toxicity. MTHFR C677T and A1298C polymorphisms were tested in 30 de novo ALL patients by restriction fragment length polymerase chain reaction technique. Thirty normal age- and sex-matched subjects were subjected to the same analysis as a control group. the frequency of MTHFR A1298C gene polymorphism was significantly lower in ALL patients than the controls thus showing a protective effect. the two polymorphisms had no effect on the response to induction chemotherapy.
as regards the treatment toxicity, MTHFR C677T polymorphism was associated with marked thrombocytopenia, while A1298C polymorphism was associated with hepatic toxicity. Identifying predictors of methotrexate sensitivity may lead to the development of individualized treatment strategies with improved efficacy and reduced toxicity as well as adjusting the initial methotrexate dose.

Keywords: Mthfr gene polymorphism C677t; A1298c; Pcr; All.

50. Association of Caspase 8 and Caspase 10 Genetic Polymorphisms with B-Cell Non Hodgkin'S Lymphoma in Egypt: A Case-Control Study

Hanaa Hamed Arnaout, Mervat Mamdooh Khorshied, Ola M. Reda Khorshid and Mona Hazem El-Nagdy

Journal of Cancer Science & Therapy, 4: 249-253 (2012)

Non-Hodgkin lymphomas are closely related diseases with distinctive morphologic, immunophenotypic, genetic, and clinical features. Genetic susceptibility studies of NHL are mandatory to identify at risk populations and to clarify important disease mechanisms. Caspase genes play a key role in regulation of apoptotic cell death, and dysregulation of this signaling pathway has been shown to participate in tumorigenesis. the current study aimed at defining the role of Caspase 8-D302H, Caspase 8-652 6N ins/del and Caspase 10-I522L genetic polymorphisms as risk factors for NHL and their possible role as genetic prognostic markers.

Methods: the present study included 100 Egyptian B-cell NHL patients and 100 healthy controls. Genotyping of the studied genes was performed by polymerase chain reaction-restriction fragment length polymorphism (PCRRFLP) technique. Data was analyzed using SPSS statistical package version 15.
Results: the study revealed that CASP8-D302H mutant genotypes were significantly higher in NHL patients when compared to the controls and conferred increased risk of NHL. for CASP8-652 6N ins/del and Casp10-I522L, there was no statistical difference in the distribution of the different genotypes between NHL cases and the controls. Furthermore, there were no statistical differences between NHL patients harboring the wild or mutant genotypes of the studied genes as regards their response to therapy.
Conclusions: CASP8-D302H genetic polymorphism represents a genetic risk factor for NHL in Egyptian population. Hopefully, better understanding of the functional consequences of caspase genes polymorphism would provide a foundation for future studies of the possible role of these genes in lymphomagenesis.

Keywords: Caspase; Polymorphisms; Non hodgkin'S lymphoma.

51. The Osteogenic Differentiation Potentials of Umbilical Cord Blood Hematopoietic Stem Cells

Mervat M. Khorshied, Heba M. Gouda, Iman A. Shaheen and Tarek N. Al Bolkeny

Comparative Clinical Pathology, (2012)

Under specific culture conditions, umbilical cord blood derived mesenchymal stem cells (MSCs) can differentiate into osteogenic, adipogenic, and chondrogenic lineages. the purpose of the current study was to assess the differentiation potential of osteogenic umbilical cord blood derived hematopoietic stem cells (HSCs) and to develop an appropriate osteogenic differentiation medium for in vitro differentiation of umbilical cord blood derived HSCs. the study was conducted on 20 cord blood samples. the cells were cultured in osteogenic differentiating medium for3 weeks. the HSCs differentiated into osteoblasts, which expressed osteoblast-associated genes (osteocalcin and bone sialoprotein), which were detected by RT-PCR. They showed alkaline phosphatase activity and a positive Alizarin red-S (AR-S) stain (calcium phosphate deposition .Umbilical cord blood is a rich source of hematopoietic stem cells that can be differentiated into osteoblasts; thus, it can be used for therapeutic strategies in the context of regenerative therapy.

Keywords: Umbilical cord blood; Hematopoietic stem cells; Osteogenic differentiation.

52. Flow Cytometric Detection of Leukemic Stem Cells (Lscs) in Egyptian Pediatric B-Acute Lymphoblastic Leukemia

Manal W. El-Masry, Mervat M. Khorshied, Iman A. Shaheen, Nelly N. Abulata and Tarek A. Hashem

Comparative Clinical Pathology, (2012)

Identifying leukemia stem cells (LSCs) is a challenge and a critical step in understanding their respective biology and may provide insights into a more efficient treatment of acute lymphoblastic leukemia (ALL). This cohort study aimed at detecting LSCs expressing CD19, CD34, and CD38Low in the bone marrow of 20 de novo Egyptian pediatric B-ALL patients at the time of the diagnosis and after the induction of chemotherapy. LSCs were detected in 80% of cases at the time of diagnosis and in 70% of the cases after the induction of chemotherapy. Patients were followed up for 12–18 months. No statistically significance difference was encountered between LSC-positive and LSC-negative patients as regards their clinical and laboratory data at the time of diagnosis. Furthermore, there was no statistically significant difference between the percentages of LSC-positive patients before or after induction of therapy. on follow-up, two patients died; they had residual LSCs after the induction therapy. However, the existence of LSCs did not affect the patient's 1-year disease-free survival rate. LSC may resist the traditional lines of treatment applied for childhood B-ALL; it may be used in minimal residual disease monitoring as well as being a target for new therapeutic lines to improve the outcome of treatment especially in patients with high-risk and relapsed ALL.

Keywords: Lscs; B-All; Multicolor flow cytometry.

53. Glutathione S-Transferase T1 (Gstt1) and M1 (Gstm1) Genes Polymorphism and Risk of Bronchial Asthma in Children

Asmaa Ahemed Abd El-Aal, Mostafa M. El-Nashar and Amal H. El-Sissy

Comparative Clinical Pathology, (2012)

Oxidative stress is thought to be involved in the pathogenesis of asthma. Glutathione-S-Transferase (GST) enzymes play an important role in the antioxidant defence mechanism and therefore may influence asthma risk. Polymorphism of GSTT1 and GSTM1 genes has been associated with asthma in children and adults, but results are inconsistent across studies. the aim of the present study was to examine the association of GSTT1 and GSTM1 gene genotype and the risk of asthma among 44 stable asthmatic children in comparison to 30 healthy control subjects. Genotyping was performed using the multiplex PCR technique.GSTT1 null genotype was significantly associated with an increased risk of asthma by more than 9 fold. GSTM1 polymorphism did not appear to play a major role in the development of bronchial asthma in children. Neither was associated with patients' phenotype.

Keywords: Asthma; Gstt; Gstm; Polymorphism.

54. Differentiation of Insulin-Producing Cells from Human Cord Bloodderived Haemopoietic Stem Cells in Vitro

Manal El-Masry, Heba Gouda, Rania Fawzy and Nihal Salah El-Din

Comparative Clinical Pathology, 21: 1707-1711 (2012)

the use of stem cells in regenerative medicine holds great promise for the cure of many diseases, including type 1 diabetes mellitus, which, despite of the advances in current therapeutic approaches, remains to be one of the most serious health care problems. in addition to the traditional sources of adult stem cells, human umbilical cord blood has provided an important source of stem cells for research due to its unique advantages compared to other sources. in this study, we aimed at optimizing culture conditions for obtaining insulin-producing cells from cord blood hematopoietic stem cells. Twenty cord blood samples were subjected to short-term, liquid static culture that favors the proliferation of CD34+ hematopoietic stem cells. A duplicate

culture was set for each sample, one with high glucose concentration and the other with low glucose concentration. Then these cells were subsequently induced to transdifferentiate into insulin-producing cells via a biphasic liquid culture using exendin-4. the expression of human insulin was then tested using RT-PCR. at the end of the culture, 17 out of the 20 samples (85%) cultured in high glucose concentration showed positive human insulin mRNA expression, while culture media with low glucose concentration failed to induce transdifferentiation into insulin-producing cells in any of the 20 samples. in brief, our study demonstrate that hematopoietic cord blood stem cells can transdifferentiate into insulin-producing cells in short-term liquid culture supplemented with high glucose concentration, nicotinamide, and exendin-4 in vitro.

Keywords: Insulin-Producing Cells; Diabetes Mellitus.

55. Clinical Relevance of Angiopoietin-1, Angiopoietin-2, and their Receptor Tie-2 Expression in Acute Myeloid Leukemia

Safaa M. El Karaksy, Nancy M. El Guindy, Heba M. Gouda, Mervat M. Khorshied, Iman A. Shaheen, Reham E. Abu Khalil and Noha Y. Ibrahim

Comparative Clinical Pathology, 21: 1171-1177 (2012)

The angiogenic-related factors: angiopoietin-1 and -2 and their receptor Tie-2 have wide-ranging effects on tumor behavior that includes angiogenesis and, inflammation. These multifaceted pathways present a potential target in developing novel inhibition strategies for cancer therapy. the present work aimed at detecting the prevalence of expression of: angiopoietin-1, angiopoietin-2, and their receptor Tie-2 in 56 Egyptian de novo acute myeloid leukemia (AML) patients by conventional RT-PCR to verify the prognostic impact of their expression on the response to induction chemotherapy. Thirty age- and sexmatched healthy volunteers were subjected to the same analysis as a control group. High expression of angiopoietin-1 (Ang-1) was detected in the patient group but not the control group. AML patients expressing angiopoietin-2 (Ang-2) either solely or in combination with high Ang-1 and/or Tie-2 showed unfavorable response to induction chemotherapy; either failed induction or death during induction. These data provide evidence that the alternation of angiopoietin balance in favor of Ang-2 may play a critical role in the pathophysiology ofAML. Furthermore, positive pre-therapeutic expression of Ang-2 indicates valiable unfavorable prognostic marker in AML patients and may be used as a prognostic tool in the risk-adaptive management of AML.

Keywords: Aml; Ang-1; Ang-2; Tie-2; Rt-Pcr.

56. *DNMT3B* Promoter Polymorphism and Risk of Immune Thrombocytopenic Purpura in Pediatric Egyptians

Iman A. Shaheen, Reham E. Abukhalil, Dina K. Ali and Rasha A. Afifi

Blood Coagul Fibrin, 23: 636-639 (2012) IF: 1.238

Idiopathic (immune) thrombocytopenic purpura (ITP) is a heterogeneous clinical disorder characterized by immunemediated platelet destruction. Epigenetic changes in gene expression, including DNA methylation and histone modifications, might contribute to autoimmunity.Polymorphisms of the DNA methyltransferase 3B (DNMT3B) gene may influence DNMT3B activity on DNAmethylation and increase the susceptibility to several diseases. the current study investigated the association between a single nucleotide polymorphism (SNP) in the promoter of DNMT3B gene and the risk for ITP in pediatric Egyptians. DNMT3B SNP was genotyped by PCR– restriction fragment length polymorphism in 71pediatric ITP patients and 82 healthy controls matched for age and sex.

the C/C wild genotype was not detected in ITP patients or in the controls. the frequencies of the T/T and C/T genotypes were 93.9 and 8.5% in the controls and 91.5 and 8.5% in ITP patients, respectively. There was no significant difference in either genotypes or allelic distribution between ITP patients and the controls. in conclusion, this polymorphism was almost equally distributed between ITP patients and the controls. These results demonstrated that this SNP may not be used as a stratification marker to predict the susceptibility to childhood ITP in Egypt.

Keywords: Children; DNA methyltransferase 3B; Idiopathic thrombocytopenic purpura; Pcr–Restriction fragment length polymorphism.

Dept. of Clinical Oncology and Nuclear Medicine

57. Clinical Relevance of Different Dose Calculation Strategies for Mediastinal Imrt in Hodgkin's Disease

A. Y. Abo-Madayan

Strahlenther Onkol, 653-659 (2012) IF: 3.561

Continuing progress in diagnosis and therapy has led lo high cure rates of Hodg-kin lymphoma. Survivors carry, however, the risk of long-term complications such as second malignancies and cardiovascular disease, especially when the mediastinum is involved (1, 2, 3, 4, 5]. Intensity-modulaled radiotherapy (IMRT), image-guided radiotherapy (IGRT), and stereo-tactic body radiotherapy (SBRT) facilitate optimization of dose lo target, lung, breasts and heart in radiotherapy for me-diastinal Hodgkin lymphoma, lung cancer or breast cancer [6,7, 8, 9,10]. in an effort to assess these issues for both 3D-CRT and IMRT, we analyzed the differences in calculated dose between calculation with a PB algorithm vs. a collapsed cone (CC) algorithm for 3D-CRT and between PB vs. a Monte Carlo (MC) algorithm (with a MC calculation basis already during the second optimization step) on CT datasets of thoracic targets drawn from the clinical routine within the framework of the German Hodgkin Study Group (GHSG) focusing on target coverage and organs at risk (OAR) doses. as recalculation of IMRT plans with the CC algorithm and MC recalculation of 3D-CRT plans were technically not feasible, a CC vs. MC comparison was not performed within the framework of this study.

58. Physiological ^{18}F-FDG Uptake by the Spinal Cord: is it A Point of Consideration for Cancer Patients?

Amr Amin, Sandra J. Rosenbaum and Andreas Bockisch

J. Neurooncol, 107: 609-615 (2012) IF: 3.214

It is essential to be familiar with normal patterns of 18F FDG distribution in the whole body for accurate PET interpretation.

We assessed FDG uptake by the spinal cord to evaluate its characteristics in cancer patients.

For 101 cancer patients who underwent 18F FDG PET/CT the spinal cord along its segments was visually assessed for FDG uptake, regarding MaxSUV-measurement C1 as cutoff point. This assessment was correlated with the patient's database variables. MRI and FDG PET-CT follow-up were included in the evaluation of positive subjects with FDG cord uptake. Forty-nine (48.5%) were positive for FDG cord uptake. the most encountered sites were the eleventh and twelfth dorsal vertebrae (36/49; 73.5%), all cervical (24/49; 49%), and the first lumbar segments (19/49; 38.7%). 38/49 (77.6%) and 11/49 (22.4%) were detected in the winter and summer, respectively (P = 0.007). MRI was available for 25 of the positive FDG cord uptake patients and showed no cord abnormalities, and in follow-up FDG PET-CT studies within 3–6 months 41/49 (83.7%) faded completely, while stationary or reduced uptake was observed for the remainder (8/49; 16.3%). FDG uptake in multiple consecutive segments of the spinal cord is not uncommon in cancer patients.

This must be recognized as physiological, to avoid misdiagnosis as malignant involvement. Such physiological uptake is mostly encountered in the cervical, last two dorsal, and first lumbar levels, and quite frequently in winter.

Keywords: Fdg; Pet-Ct; Spinal cord; Fdg uptake by the spinal cord.

59. Glioma Residual or Recurrence Versus Radiation Necrosis: Accuracy of Pentavalent Technetium-99M-Dimercaptosuccinic Acid [Tc-99M (V) DMSA] Brain Spect Compared to Proton Magnetic Resonance Spectroscopy (^{1}H-Mrs): Initial Results

Amr Amin, Hosna Moustafa, Ebaa Ahmed and Mohamed El-Toukhy

Journal of Neuro-Oncology, 106: 579-587 (2012) IF: 3.214

We compared pentavalent technetium-99m dimercaptosuccinic acid (Tc-99m (V) DMSA) brain single photon emission computed tomography (SPECT) and proton magnetic resonance spectroscopy (^{1}H-MRS) for the detection of residual or recurrent gliomas after surgery and radiotherapy. A total of 24 glioma patients, previously operated upon and treated with radiotherapy, were studied. SPECT was acquired 2–3 h post-administration of 555–740 MBq of Tc-99m (V)DMSA. Lesion to normal (L/N) delayed uptake ratio was calculated as: mean counts of tumor ROI (L)/mean counts of normal mirror symmetric ROI (N). ^{1}HMRS was performed using a 1.5-T scanner equipped with a spectroscopy package. SPECT and ^{1}H-MRS results were compared with pathology or follow-up neuroimaging studies. SPECT and ^{1}H-MRS showed concordant residue or recurrence in 9/24 (37.5%) patients. Both were true negative in 6/24 (25%) patients. SPECT and ^{1}H-MRS disagreed in 9 recurrences [7/9 (77.8%) and 2/9 (22.2%) were true positive by SPECT and 1H-MRS, respectively]. Sensitivity of SPECT and ^{1}H-MRS in detecting recurrence was 88.8 and 61.1% with accuracies of 91.6 and 70.8%, respectively. A positive association between the delayed L/N ratio and tumor grade was found; the higher the grade, the higher is the L/N ratio (r = 0.62, P = 0.001). Tc-99m (V) DMSA brain SPECT is more accurate compared to ^{1}H-MRS for the detection of tumor residual tissues or recurrence in glioma patients with previous radiotherapy. It allows early and non-invasive differentiation of residual tumor or recurrence from irradiation necrosis.

Keywords: Glioma; Post-Radiation Necrosis; Tc-99 M.

60. Targit-E (Lderly) - Prospective Phase Ii Study of Intraoperative Radiotherapy (Iort) in Elderly Patients with Small Breast Cancer

Ahmed Yasser Ahmed

Bmc Cancer, (2012) IF: 3.011

Patients [greater than or equal to 70 years with small, low-risk breast cancer who are operated but rot irradiated show local relapse rates around 4% after 4 years. with adjuvant whale breast radiotherapy (WBRT) the local relapse rate drops to 1% after 4 years under Tamoxifen (5). It has been demonstrated (6, 12) that the efficacy of radiotherapy of the tumor bed only in a selected group can be non-inferior to WBRT.

Methods: This prospective, multlcentric single arm phase II study is based on the protocol of the international TAKG1T-A study. the TARGIT-E study should confirm the efficacy of a single dose of intraoperative radiotherapy (IORT] in a well selected group of elderly patients with small breast cancer and absence of risk factors. Patients will receive IORT (20 Gy with Intrabeam system/Carl Zeiss) during breast conserving surgery. in presence of risk factors postoperative WBRT will be added to complete the radi others peutic treatment according to international guidelines. Endpomts are the local relapse rate (within 2 cm of the tumor bed), Ipsilateral in breast relapse, cancer-specific and overall survival and contralateral breast cancer as well as documentation of quality of life and cosmetic outcome. the expected local relapse rates are 0.5/1/1.5% after 2,5/5/7.5 years, respectively. Discontinuation of the trial Is scheduled it rates of local relapse rates rise to 3/4/6% after 2.5/5/7.5 years. Power calculations result in 540 patients with a calculated dropout rate of 20% and loss to follow-up of 20%, an alpha of 0.01 and a beta 0,05. There will be a pre- and a post-pathology stratum (n=270 each).

61. Tc-99M Diethylenetriamine Pentaacetic Acid (DTPA) Renal Function Reserve Estimation: is it A Reliable Predictive Tool for Assessment of Preclinical Renal Involvement in Scleroderma Patients?

Amr Amin, S. El-Sayed, N. Taher, M. Sedki and H. Nasr

Clin Rheumatol, 31: 961-966 (2012) IF: 1.996

Prognosis of systemic sclerosis (SSc) depends on internal organ involvement. We assessed the value of renal function reserve (RFR) for the detection of preclinical nephropathy in scleroderma. Thirty SSc patients with normal serum creatinine and 30 healthy controls were included.Medsger disease severity score, glomerular filtration rate (GFR), and microalbuminuria were measured. Tc-99m DTPA was utilized for GFR measurement at baseline and after oral protein overload (stimulated GFR). RFR was calculated as the percentile increase of stimulated GFR. SSc patients had lower means of baseline GFR (P=0.001), stimulated GFR (P=0.004), RFR (P=0.046), and higher microalbu- minuria (P=0.009) than controls. According to baseline GFR, SSc patients showed three categories—normal baseline GFR (n=12), hyperfiltration GFR (n=3), and reduced baseline GFR (n=15). in the former category, RFR was normal in 6/12 patients and abnormal in the remainders (50%). Hyperfiltration patients and those with reduced baseline GFR showed abnormal RFR. A statis- tically significant negative association was found between microalbuminuria versus

stimulated GFR and RFR (r=-0.5, P=0.007 and r=-0.45, P=0.013, respectively). The majority of SSc patients with abnormal RFR had disease duration of ≥48 months (60% vs. 20%, P=0.008). All SSc patients with pulmonary hypertension had abnormal RFR, while reduced baseline GFR was noted in only 60%. A significant negative correlation was found between reduced baseline GFR and cumulative dose of corticosteroids in SSc patients (r=-0.4, *P*=0.022). RFR estimation could be a useful predictive marker for preclinical renal involvement in SSc patients so that early prophylactic measures and therapy mod- ifications could be considered.

Keywords: Early Nephropathy; Glomerular Filtration Rate; Microalbuminuria; Renal Function Reserve; Systemic Sclerosis; Tc-99M DTPA.

62. The Palliative Prognostic Index for the Prediction of Survival and in-Hospital Mortality of Patients with Advanced Cancer in Kuwait

Salem Alshemmari, Hanan Ezzat, Zainab Samir, Samar Refaat and Samy A. Alsirafy

J Palliat Med, 15 (2): 200-204 (2012) IF: 1.849

Introduction: Prognostic scoring systems are increasingly used in cancer care. One of these systems is the Palliative Prognostic Index (PPI) which is based on clinical findings. Few studies validated the PPI in different settings. Our aim was to test the predictive value of the PPI in an acute cancer care setting.
Methods: Prospective study that included patients with advanced cancer admitted to a tertiary cancer center in Kuwait. Patients were divided according to the PPI score into three groups: A (PPI≤ 3), B (PPI>3-≤ 6), and C (>6).
Results: the study included 91 hospitalized patients. at the time of PPI assessment, the plan of treatment was best supportive care only in 70 (77%) patients. the majority (80%) of included patients died in-hospital. the in-hospital mortality rate for patients with a PPI>6 was significantly higher than those with ≤ 6 (93% versus 56%, p<0.001). Using a cutoff point of PPI>6, in-hospital mortality was predicted with a 73% sensitivity, 78% specificity, 93% positive predictive value, and 41% negative predictive value. the median survival was 61 days (95% confidence interval [CI]: 25.8-96.2) for group A, 20 days (95% CI: 4.5-35.5) for group B, and 6 days (95% CI: 4-8) for group C. the difference in survival was highly significant (p<0.001).
Conclusion: the results suggest that the PPI may be helpful for oncologists in predicting survival and in-hospital mortality of patients with advanced cancer in the acute care setting.

Keywords: Advanced cancer; Prognosis; in-Hospital Mortality; Palliative prognostic index; Kuwait.

63. Palliative Care: An Unexplored Aspect of Schistosomiasis Neglect?

Samy A. Alsirafy, Somaia M. Mousa and Stuart M. Brown

American Journal of Hospice and Palliative Medicine, 29 (1): 7-8 (2012) IF: 1.153

the World Health Organization defines palliative care as ‘‘an approach that improves the quality of life of patients and their families facing the problem associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual.
Although the palliative care needs of patients with lifethreatening noncancer diseases are comparable to those of patients with cancer, they are largely unmet. Schistosomiasis is one of the neglected tropical diseases which are considered ‘‘a symptom of poverty and disadvantage.’’ It is estimated that more than 207 million people are infected with schistosomiasis, and the majority (85%) are in Africa. the estimated number of deaths per year due to schistosomiasis is more than 200 000 in sub-Saharan Africa alone. the provision of palliative care services for those with the late effects of schistosomiasis is an area that needs exploration.

Keywords: Schistosomiasis; Neglect; Palliative care; Quality of life.

64. Opioid Consumption Before and After the Establishment of a Palliative Medicine Unit in an Egyptian Cancer Centre

Samy A. Alsirafy, Noha Y. Ibrahim, and Enas N. Abou-Elela

J. Palliat Care, 135-140 (2012) IF: 0.931

Opioid consumption before and after the establishment of a palliative medicine unit (PMU) in an Egyptian cancer centre was reviewed. A comparison of consumption during the year before the PMU was established to consumption during the third year after the PMU's establishment revealed that morphine consumption increased by 698 percent, fentanyl by 217 percent, and tramadol by 230 percent. Expressed in defined daily dose (DDD) and adjusted for 1,000 new cancer patients, consumption increased by 460 percent, from 4,678 DDD/1,000 new patients to 26,175 DDD/1,000 new patients. Expressed in grams of oral morphine equivalent (g OME), consumption increased by 644 percent, from 233 g OME/1,000 new patients to 1,731 g OME/1,000 new patients. the establishment of the PMU was associated with an increase in opioid consumption, especially morphine, which is an indicator of improvement in cancer pain control. the expression of opioid consumption in OME in addition to DDD may provide further information, especially when weak opioids are included in the analysis.

Keywords: Cancer pain; Opioid consumption; Palliative medicine; Quality of life; Egypt.

65. Detection of Orphan Receptor Tyrosine Kinase (Ror-1) Expression in Egyptian Pediatric Acute Lymphoblastic Leukemia

Iman Shaheen and Noha Ibrahim.

Fetal and Pediatric Pathology, 1-7 (2012) IF: 0.613

Receptor tyrosine kinases, a group of tumor-associated antigens, were introduced as targets for cancer intervention strategies. the human orphan receptor tyrosine kinase-1 (ROR-1) is a member of this family. Overexpression of ROR1 has been reported in B-cell chronic lymphocytic leukemia. the aim of this study was to detect the expression profile of ROR1 in 54 pediatric acute lymphoblastic leukemia (ALL) patients. ROR1 was overexpressed in ALL as the ROR1/ β -actin ratio was higher in ALL children than in control group (P = 0.024). ROR1 is a potential tool for targeted immunotherapy in pediatric ALL patients.

Keywords: Acute Lymphoblastic Leukemia (All); Ror-1; Semi-Quantitative Rt-PCR.

66. Capecetabine Plus Oxaliplatin as Adjuvant Therapy for Colon Cancer

Wael Makar, Noha Ibrahim, Ibtessam Saad El Din and Dalia Darwish

Austral - Asian Journal of Cancer, 11 (3): 175-180 (2012)

Adjuvant chemotherapy improves overall survival (OS) in patients with locally advanced, node-positive (stage III) colon cancer.

Methods: This study was designed to compare capecitabine/ oxaliplatin (XELOX) with FU/LV/oxaliplatin (FOLFOX4) as adjuvant treatment for patients with high risk stage II and stage III colon carcinoma in terms of toxicity, patient convenience, event-free survival (EFS) and overall survival. Patients were followed up for a median period of 39 months ranging from 30 to 48 months.

Results: Sixty four patients were enrolled in each arm. the overall survival at 36 and 48 months for the XELOX group was 73.8% and 62% respectively. While the overall survival for FOLFOX group was 72% and 58% respectively (HR 0.8338, 95%CI= 0.2557-2.719). the difference was not statistically significant. Grade 3/4 neutropenia was more significant with FOLFOX 22% versus 9.4% (p=0.01). XELOX was associated with more G3/4 diarrhea 17.2% versus 11% (p=0.25), and hand and foot syndrome 9.4% versus 1% (p=0.04).

Conclusion: This study reveals that XELOX is as effective and safe as FOLFOX and has a manageable tolerability profile in the adjuvant setting with more convenience to the patients.

Keywords: Xelox; Folfox; Adjuvant; Advanced Cancer Colon.

67. Potential Toxicities of Prophylactic Toxicities of Prophylactic Cranial Irradiation

Ahmed Yasset Ahmed Abd Elatif Abumedyan

Tran Stat Ional Lung Cancer Research, (2012)

Prophylactic cranial irradiation (PCI) with total doses of 20-30 Gy reduces the incidence of brain metastasis (BM) and increases survival of patients with limited and extensive- disease small-cell lung cancer (SCLC) that showed any response to chemotherapy. PCI is currently not applied in. non -small -cell lung cancer (NSCLC) since it has not proven to significantly improve OS rates in stage 1IIA/B, although novel data suggest that subgroups that could benefit may exist. Here we briefly review potential toxicilics of PCI which have to be considered before prescribing PCI. They arc mostly difficult to delineate from pre-existing risk factors which include preceding chemotherapy, patient age, paraneoplasia, as well as smoking or atherosclerosis. on the long run, this will force radiation oncologists to evaluate each patient separately and to estimate the individual risk. Where PCI is then considered to be of benefit, novel concepts, such as intensity-modulated radiotherapy and/or peuroprotective drugs with potential to lower the rates of side effects will eventually be superior to conventional therapy. This in turn will lead to a re-evaluation whether benefits might then outweigh the (lowered) risks.

Keywords: Prophylactic cranial irradiation (Pci); Potential tenacities; Brain metastasis (Bm); Small-cell lung cancer (Sclc); Non- small-Cell Lung cancer (Nsclc).

68. A Comparative Study of Mucinous and Serous Adenocarcinomas of the Ovary: Are they the Same Disease?

Emmad E. Habib

Austral - Asian Journal of Cancer, 11 (2): 143-151 (2012)

Ovarian cancer is the most lethal gynecological malignancy, with epithelial tumours being the largest group (90%).

Aim of this Study: the objective of this study was to identify the clinical and treatment outcome differences between stage 3 and 4 mucinous and serous ovarian carcinomas with regard to survival and disease free survival and the impact of the histological grade on prognosis.

Results: Between June 2005 and December 2009, 186 serous ovarian carcinoma patients and 36 mucinous patients were diagnosed and treated at the gynecology unit of the clinical oncology department, faculty of medicine, Cairo University, Egypt. Those cases were included in the present study with a minimal follow up period of 2 years. for the serous group the number of relapsing cases after achieving a complete remission was 12 within the first year of follow-up (6.6%). Salvage surgery was performed to 21 cases (11.5%) not achieving initial CR, with 18 of those (85.7%) performing optimal debulking. After the first year 51 cases achieving CR relapsed (27.4%). Peritoneal relapse was in 42 cases (82.4%), liver metastases in 6 cases (11.8%)

Keywords: Ovarian cancer; Mucinous; Serous; Surgery.

69. Management of Neuroblastoma: A Study of First- and Second-Line Chemotherapy Responses, A Single Institution Experience

Emmad E. Habib, Amr T. El-Kashef and Ezzat S. Fahmy

Oncology Reviews, 6 (e3): 11-15 (2012)

Neuroblastoma is a high-grade malignancy of childhood. It is chemo- and radio-sensitive but prone to relapse after initial remission. the aim of the current study was to study the results of the first- and second-line chemotherapy on the short-term response and long-term survival of children, and to further describe the side effects of treatment.

Ninety-five children with advanced neuroblastoma were included in the study, divided into two groups according to the treatment strategy: 65 were treated by first-line chemotherapy alone, and 30 children who were not responding or relapsed after first-line chemotherapy were treated by second-line chemotherapy. External beam radiotherapy was given to bone and brain secondary cancers when detected. Staging workup was performed before, during and after management. Response was documented after surgery for the primary tumor. Median follow up was 32 months (range 24-60 months). Chemothe rapy was continued until toxicity or disease progression occurred, indicating interruption of chemotherapy. Patients received a maximum of 8 cycles. Toxicity was mainly myelo-suppression, with grade II-III severity in 60% of the firstline and 70% of the second-line chemotherapy patients. Median total actuarial survival was nearly 51 months for the first-line chemotherapy group and 30 months for the second-line line group, with a statistically significant difference between the two groups ($P<0.01$).

Keywords: Neuroblastoma; Chemotherapy; Treatment.

70. Synchronous Chemoradiotherapy in Patients with Stage Iii and iv Head and Neck Cancer: Comparing Cisplatin with Capecitabine

Sherif A. Raafat, Emmad E. Habib and Ashraf M. Maurice

Journal of Cancer Therapy, 3: 1045-1051 (2012)

To evaluate the efficacy of concurrent intravenous cisplatin versus oral capecitabine with radical radiotherapy in locally advanced squamous cell carcinoma of the head and neck.
Materials and methods: Between January 2007 and December 2009, 60 patients with stage III/IV head and neck squamous cell carcinoma (0 to 1 performance status) were enrolled into this study. Thirty cases are given cisplatin 30 mg/m2 IV infusion weekly for 6 weeks with conven- tional radiotherapy. the remaining thirty cases are given oral capecitabine 500 mg/m2 twice daily, continuously for 28 - 35 days with conventional radiotherapy also. the radiotherapy dose was 4600 cGy in 20 fractions over 4 weeks to pri- mary and neck nodes followed by boost to primary site and any residual disease 1500 - 2000 cGy in 6 to 8 fractions.
Results: the median age was 53 (range 25 - 71) years; 10 cases had stage III disease, 36 cases IVa disease and 14 cases IVb disease. Seventy-three percent of patients completed the course of capecitabine and 80% completed prescribed cis- platin. There were no treatment-related deaths, grade 4 haematological toxicity or grade 3 renal toxicity in either arm. the complete response rate at 3 months was 77% (23/30 patients) in the capecitabine group and 60% (18/30) in the cis- platin group. Relapse occurred in 10/30 (33%) patients by 2 years in the capecitabine group and in 12/30 (40%) in the cisplatin group. on analysis of survival data, the median follow-up period was 35 ± 15 months for overall survival and 33 ± 10 months for disease free survival. the overall survival, and disease-free survival rates at 2 years were 67%, and 85%, respectively for the capecitabine group versus 60% and 73% for the cisplatin group.
Conclusion: Synchronous chemo-radiotherapy with capecitabine was found to be very effective, with excellent response, local control and 3-year cancer-specific survival rates.

Keywords: Capecitabine; Cisplatin; Advanced Squamous Cell Carcinoma of the Head and Neck; Synchronous Chemoradiotherapy.

71. Representation of Expatriates Among Cancer Patients in Kuwait and the Need for Culturally-Competent Care

Salem H. Alshemmari, Samar M. Refaat, Amani A. Elbasmi and Samy A. Alsirafy

Journal of Psychosocial Oncology, 30 (3): 380-385 (2012)

From 2000 to 2007, 11,793 cancer patients received treatment in Kuwait. Non-Kuwaitis accounted for 6,016 (51%) patients. They came from 68 countries, mainly from the World Health Organization Eastern Mediterranean (59%) and South-East Asian (20%) regions. the majority (69%) was from low- and low-middle income countries. Thirty-seven percent were from non-Arabic speaking countries. to provide culturally-competent care for expatriate patients, there is a need to explore the impact of their ethnic, sociocultural, economic, language diversity, and expatriation-related stressors on different aspects of cancer care.

Keywords: Expatriates; Cancer care; Cultural competency; Needs assessment; Kuwait.

Dept. of Clinical Pathology

72. CD 200 Expression in B-Cell Chronic Lymphoproliferative Disorders

El Desoukey, Nermeen Ahmed Afify, Reham Abd Aleem, Amin, Dalia Gamil, Mohammed and Rasha Faragaly

J Invest Med, 60 (1): 56-61 (2012) IF: 1.964

Flowcytometry immunophenotyping (FCIP) is used for rapid, specific diagnosis of B-chronic lymphoproliferative disorders (BCLPDs). However; cases may deviate from the typical immunophenotype, therefore, there is a need for adding new marker(s) for differentiating BCLPDs. Lately, few researches highlighted CD200 expression in some BCLPDs. Our aim was to evaluate CD200 expression in different BCLPDs, and whether adding CD200 to BCLPDs-FCIP routine panels, could improve the ability of their differential diagnosis.
Methods: We evaluated CD200 expression in 49 BCLPDs patients and 26 age and sex matched controls. FCIP first panel included CD5, CD19, sIg, CD23, CD22, CD79b and FMC7, for BCLPDs other than chronic lymphocytic leukemia (CLL) and mantle cell lymphoma (MCL), CD11c, CD103, CD25 and CD10 were evaluated.
Results: Using tricolor FCIP, CD200 showed high bright expression on CD5/19 positive clone in all B-CLL patients (100%), with a mean of 94 ± 11%, in the 2 cases of HCL, CD200 was brightly expressed on 96 and 99% of cells. in all other BCLPDs including MCL, CD200 expression (on CD19/22 positive cells) was less than 20% with a mean of 10 ± 8% and a dim pattern. CD200 expression was significantly higher in CLL compared to NHL groups (P value < 0.001).
Conclusion: Evaluating CD200 expression has a great impact on accurate BCLPDs diagnosis and could be added to the BCLPDs routine panels. the high expression of CD200 in B-CLL and HCL could open the option for targeted immune (Anti CD200) therapy.

Keywords: Cd200; Bclpds; Flowcytometry.

73. Frequency of Vkorc1 (C1173t) and Cyp2c9 Genetic Polymorphisms in Egyptians and their Influence on Warfarin Maintenance Dose: Proposal for A New Dosing Regimen

M. S. El Din, D. G. Amin, S. B. Ragab, E. E. Ashour, M. H. Mohamed and A. M. Mohamed

Int J Lab Hematol, (2012) IF: 1.176

Warfarin is one of the most widely used anticoagulants, yet interindividual differences in drug response, a narrow therapeutic range and a high risk of bleeding or stroke complicate its use. We aimed to determine the allele and genotype frequency of VKORC1 1173 C>T, CYP2C9*2 and CYP2C9*3 variant polymorphisms in the Egyptian population and to evaluate their influence on the interindividual differences in warfarin dosage.
Methods: A total of 154 unrelated healthy adult patients and 46 warfarin- treated patients were included. SYBR Green-based real-time polymerase chain reaction (PCR) assay was used for studying VKORC1 (C1173T) and CYP2C9*3 polymorphisms.

Mutagenically separated PCR assay was used to detect the CYP2C9*2 allele.
Results: VKORC1 genotype frequencies were 11%, 24% and 65% for CC, CT and TT, respectively. the prevalence of CYP2C9 haplotypes was 81% (*1*1), 3.3% (*1*2), 9.7% (*1*3), 4.5% (*2*2) and 0.65% (2*3 and *3*3). VKORC1 TT and CYP2C9*2*2 were associated with a significantly lower warfarin dose. VKORC1 and CYP2C9 accounted for 31.7% and 15.6% of warfarin dose variability, respectively, and together with clinical factors explained 61.3% of total variability.
Conclusion: VKORC1-TT and CYP2C9 *1/*1 are the most prevalent genotypes among Egyptians. Patients with VKORC1-TT genotype required a lower warfarin dose.

Keywords: Vkorc1; Cyp2c9; Warfarin; Realtime Pcr.

74. Genetic Polymorphism of Microsomal Epoxide Hydrolase Enzyme Gene in Preeclamptic Females

Mennat Allah Kamal, Zainab Ali Elsaadany, Nevien Bahaa Fouad, Asmaa Ahmed A. Elaal, Manal Mohamed Makhlouf, Mona Mohamed Shabaan and Dalia Roshdi A. Elrahman

Am J Med Sci, 343 (4): 291-294 (2012) IF: 1.391

Introduction: Microsomal epoxide hydrolase enzyme is involved in xenobiotics detoxification. It catalyzes the phase I hydrolysis of epoxides and plays a role in the detoxification processes and in the metabolism of endogenous and exogenous compounds. Preeclampsia, which is one of the most serious complications of pregnancy, may be due to an imbalance between these compounds, such as lipid peroxides and oxygen-free radicals and detoxifying and scavenging substances.
Two variants of human epoxide hydrolase enzyme with different enzyme activity have been described; exon 3 polymorphism is associated with lower enzyme activity whereas exon 4 polymorphism is associated with higher activity. the authors tried to investigate the association between these genetic polymorphisms and preeclampsia.
Method: Thirty preeclamptic females together with 30 normal pregnant females as controls were included in the study. Genotyping for exons 3 and 4 of microsomal epoxide hydrolase enzyme was done by polymerase chain reaction–restriction fragment length polymorphism.
Results: There was no statistical significant difference in the distribution of exon 3 genotype between cases and controls (P= 0.4); on the other hand, a highly statistical significant difference was found between cases and controls as regard exon 4 genotype (P= 0.002).
Conclusion: There may be an association between epoxide hydrolase enzyme polymorphism and the risk of preeclampsia. Key Indexing Terms: EPHX; Preeclampsia; PCR-RFLP; Genetic polymorphism.

Keywords: Ephx; Preeclampsia; Pcr-Rflp; Genetic Polymorphism.

Dept. of Dermatology

75. Artemin Causes Hypersensitivity to Warm Sensation, Mimicking Warmth-Provoked Pruritus in Atopic Dermatitis

Hiroyuki Murota,a Mayuko Izumi, Mostafa I. A. Abd El-Latif,Megumi Nishioka, Mika Terao, Mamori Tani, Saki Matsui, Shigetoshi Sano and Ichiro Katayama

J. Allergy Clin Immun, 130 (3): 671-682 (2012) IF: 11.003

Itch impairs the quality of life for many patients with dermatoses, especially atopic dermatitis (AD), and is frequently induced by a warm environment. Objective: to determine the mechanism underlying itch induction by warmth, we focused on artemin, a member of glial cell line–derived neurotrophic factors (GDNFs).
Methods: A gene array assay revealed that artemin was expressed in substance P–treated dermal fibroblasts. the expression of artemin in healthy and AD-lesional skin was evaluated with immunohistochemistry and in situ hybridization. the impact of fibroblast-derived artemin on the proliferation and morphology of neural cell was investigated in vitro. to confirm the involvement of artemin in skin sensibility, wild-type and GDNF family receptor a3 knockout mice were employed for sensory examination.
Results: Artemin-expressing fibroblasts accumulated in skin lesions of patients with AD. Artemin induced cell proliferation of a neuroblastoma cell line in vitro, and intradermal injection of artemin in mice resulted in peripheral nerve sprouting and thermal hyperalgesia. Artemin-treated mice demonstrated scratching behavior in a warm environment, but mice deficient for GDNF family receptor a3, a potent artemin receptor, did not show this behavior. Furthermore, the escaping response to heat stimulus was attenuated in GDNF family receptor a3 knockout mice, suggesting that artemin may contribute to sensitivity to heat.
Conclusion: These data suggest that dermal fibroblasts secrete artemin in response to substance P, leading to abnormal peripheral innervation and thermal hyperalgesia. We hypothesize that artemin lowers the threshold of temperaturedependent itch sensation and might therefore be a novel therapeutic target for treating pruritic skin disorders, including AD.

Keywords: Artemin; Fibroblast; Substance P; Atopic Dermatitis; Itch; Nerve Fiber; Warmth.

76. Pathogenic Anti-Desmoglein 3 MAbs Cloned from A Paraneoplastic Pemphigus Patient by Phage Display

Marwah A. Saleh, Ken Ishii, Jun Yamagami, Yuji Shirakata, Koji Hashimoto and Masayuki Amagai

Invest Dermatol, 132: 1141–1148 (2012) IF: 6.314

Paraneoplastic pemphigus (PNP) is an autoimmune blistering disease associated with lymphoproliferative neoplasms and characterized by antibodies against plakins and desmoglein 3 (Dsg3). Anti-Dsg3 antibodies have a primary role in blister formation in PNP. in this study, we used phage display to clone monoclonal anti-Dsg3 antibodies from a PNP patient to further characterize their pathogenicity. We isolated 20 unique Dsg3-reactive mAbs, which we classified into four groups according to the heavy-chain complementarity-determining region 3 (CDR3) region. Genetic analyses demonstrated that three antibody groups

used the VH1-46 gene (18 clones) and one group used the VH1-02 gene (2 clones). the results of an in vitro keratinocyte dissociation assay and a human skin organ culture injection assay showed that three antibodies displayed pathogenic activity in blister formation with different potencies. Epitope mapping using domain-swapped Dsg3/Dsg2 showed that these pathogenic mAbs bound Ca^{2+}-dependent conformational epitopes in the middle portion of the extracellular region of Dsg3 (EC2 and EC3 domains), in contrast to most previously characterized pathogenic pemphigus vulgaris antibodies, which bound to the EC1 domain of Dsg3. These mAbs reflect the unique polyclonal nature of anti-Dsg3 antibodies in PNP and represent an important tool for detailing the pathophysiological mechanisms of blister formation in PNP.

Keywords: Pemphigus, Desmoglein, Autoimmune bullous Diseases, Autoantibodies.

77. Live Attenuated Varicella Vaccine: A New Effective Adjuvant Weapon in the Battlefield Against Severe Resistant Psoriasis, A Pilot Randomized Controlled Trial

Mohammad A. El-Darouti, Rehab A. Hegazy, Rania M. Abdel Hay and Dalia M.Abdel Halim

J Am Acad Dermatol, 66: 511-513 (2012) IF: 3.991

This study included 35 patients with severe resistant psoriasis randomly divided into two groups: group A (18 patients) and group B (17 patients). They all received low-dose cyclosporine (2.5 mg/kg/d). in addition, group A received 4 doses of Varilrix once every 3 weeks; the first dose was administered 2 weeks before cyclosporine. Simultaneously group B received placebo in the form of 4 doses of subcutaneous saline once every 3 weeks. Before each vaccination we checked that all patients were not immunocompromised (normal IgG and IgM, T/B lymphocytes, and CD4 T cells $25%).

Keywords: Cyclosporine; Live Attenuated Varicella Vaccine; Pasi; Psoriasis.

78. Hair Loss In Pityriasis Versicolor Lesions: A Descriptive Clinicopathological Study

Wedad Z. Mostafa, Magda I. Assaf, Iman A. Ameen, Omar S. El Safoury and Shatha A. Al Sulh

Journal of the American Academy of Dermatology, (2012) IF: 3.991

Background: We have observed that hair thinning and/or loss occur at times as a presenting symptom or sign in patients with pityriasisversicolor (PV).
Objective: Our objective was to verify and explore this clinical observation and depict its underlying pathology.
Methods: A total of 39 patients with PV were examined during a period of 11 months and skin biopsy specimens were taken from lesional and nonlesional skin. Hematoxylin-eosine and periodic acideSchiffestained sections were examined and described. Results were statistically analyzed.
Results: Hair loss and/or thinning within PV lesions was shown in 61.5% of patients (P value \ .0005), appearing most commonly on forearms, abdomen, and neck as well as the beard area (only in male participants). Histopathologically, in addition to the classically described features of PV, basal hydropic degeneration, follicular degeneration, miniaturization, atrophy, plugging, and/or hair shaft absence occurred in 46% of lesional versus 20.5% of nonlesional biopsy specimens (P value\.05); these changes appeared to be directly or indirectly related to the presence of Malassezia organisms in hair follicles and/or stratumcorneum.
Limitations: Some patients with PV lesions on the face did not approve facial biopsy.
Conclusion: This study provides clinical and histopathological evidence that PV lesions may be associated.

Keywords: Hair Loss; Hair Shaft; Histopathology; Hydropic Degeneration; Hyphae; Malassezia; Pityriasis Versicolor.

79. Hypopigmented Parapsoriasis En Plaque, A New Overlooked Member of the Parapsoriasis Family: A Report of Thirty-Four Patients and A Seven Year Experience

Mohammad A. El-Darouti, Marwa M. Fawzy, Rehab A. Hegazy, and Rania M. Abdel Hay

J. Am Acad Dermatol, (2012) IF: 3.991

In the past 7 years we have extensively studied an uncommon hypopigmented disorder that, apart from hypopigmentation, showed many common features with parapsoriasis en plaque (PSEP), both clinically and histopathologically.
Objective: We sought to verify whether this disorder should be considered a hypopigmented variant of PSEP and thus be referred to as hypopigmented PSEP.
Methods: A total of 34 patients presenting with this peculiar hypopigmented disorder were included (2003-2010). Patients were subjected to a predesigned algorithm excluding all possible differential diagnoses of hypopigmented lesions.
Results: Our findings indicated that this disorder can be diagnosed as hypopigmented PSEP. These findings included: (1) exclusion of all other disorders causing similar hypopigmented lesions; (2) shape and size of the lesions being very similar to those of classic small PSEP (small-plaque parapsoriasis [SPP]); (3) similar distribution of the lesions (trunk, proximal upper and lower limbs) to the classic PSEP; (4) digitiform extensions of most the lesions (70.5% of our patients) as in SPP; (5) absence of itching as in PSEP (SPP type); (6) good response to narrowband ultraviolet B in 76.4% of the patients (n = 26); and (7) during follow-up 5 patients (14.7%) converted into hypopigmentd mycosis fungoides.
Limitations: A limitation in our study is that we did not perform clonal T-cell receptor gene rearrangement because of limited resources.
Conclusion: Based on our findings we believe that this hypopigmented disorder is a well-defined new variant of the PSEP family that shows, apart from the hypopigmentation, all the features of PSEP, particularly the SPP variant, and accordingly could be referred to as hypopigmented PSEP.

Keywords: Igitiform Extensions; Follow-Up; Hypopigmented; Mycosis Fungoides; Parapsoriasis En Plaque; Phototherapy.

80. DNA Polymorphisms and Tissue Cyclooxygenase-2 Expression in Oral Lichen Planus: A Case-Control Study

R.M. Abdel Hay, M.M. Fawzy, Metwally,Kadry, M. Ezzat, W. Rashwan and L.A. Rashed

J Eur Acad Dermatol, 26: 1122-1126 (2012) IF: 2.98

Oral lichen planus (OLP) is a chronic inflammatory disorder defined as a precancerous condition. Special attention has been paid to the expression of cyclooxygenase-2 (COX-2) and its potential role in development of oral squamous cell carcinoma. the identification of single nucleotide polymorphisms that affect gene function or expression and contribute to disease predisposition has become a major area of investigation toward understanding the mechanisms for cancer.

Objective: the objective of this study is to investigate the association between the COX-2 765G>C gene polymorphism, tissue COX-2 expression and the development of OLP as a chronic inflammatory condition.

Methods: This study was done on 50 patients with OLP and 50 healthy controls. COX-2 activity was assessed by measuring tissue prostaglandin E (PGE)2 levels by enzyme immunometric assay kit. COX-2 765G>C gene polymorphism was assessed by reverse transcriptase-polymerase chain reaction (RT-PCR) followed by restricted fragment length polymorphism (RFLP).

Results: OLP patients showed statistically significant higher mean PGE2 than the control group. We did not observe any statistically significant differences in genotype distribution or allele frequency between the patients and the control group ($P > 0.05$). Odds ratio showed no statistically significant association between COX-2 765G>C polymorphism and lichen planus.

Conclusion: the present evidence thus indicates that variation in the COX-2 gene is unlikely to be of relevance to the aetiology of OLP. as this is the first report concerning the COX-2 -765G>C gene polymorphism and the risk of OLP, additional studies with larger sample size will be required to confirm these findings.

Keywords: Cyclooxygenase-2; Oral lichen planus; Prostaglandin E2.

81. Plasma and Tissue Osteopontin in Relation to Plasma Selenium in Patients with Psoriasis

D. Kadry and L. Rashed

J. Eur Acad Dermatol, 26 (1): 66-70 (2012) IF: 2.98

The association between psoriasis and cardiovascular diseases (CVD) is well documented yet the underlying mechanisms remain unknown. Over-expression of osteopontin (OPN) was reported in plasma of patients with psoriasis; with increased cardiovascular risk factors in these patients. Selenium (Se) compounds are effective in down-regulation of OPN expression.

Objective: We investigated the levels of OPN and Se in psoriasis, and their relation to metabolic status in patients to identify a possible link between these markers and co-morbidities observed.

Methods: Plasma and tissue samples from 20 patients with psoriasis and 10 control subjects were collected for enzyme-linked immunosorbent assays. the clinical significance of plasma, tissue OPN and plasma Se levels in patients vs. control subjects was analysed in relation to metabolic disorders.

Results: Plasma and tissue OPN were significantly higher in patients than in controls ($P < 0.001$). Plasma Se levels were significantly lower in patients than in controls ($P < 0.001$). Elevated plasma OPN levels ($\geq$ 51.10 ng / mL) and depressed plasma Se ($\leq$ 5.19 µg /dL) were significantly associated with the occurrence of psoriasis. Plasma OPN negatively correlated with plasma Se in patients ($P = 0.003$), but not in controls ($P = 0.183$).

Conclusions: High plasma OPN and low plasma Se levels are predictable factors for occurrence of psoriasis. Further studies examining the effects of Se supplementations on the levels of plasma OPN, together with their effects on psoriasis outcome and cardiovascular risk factors in these patients, are needed.

Keywords: Psoriasis; Osteopontin; Selenium.

82. Acral Lesions of Vitiligo: Why are they Resistant to Photochemotherapy?

S.M. Esmat, A.M. El-Tawdy, G.A. Hafez, O.A. Zeid, D.M. Abdel Halim, M.A. Saleh, T.M. Leheta and M. ElMofty

J Eur Acad Dermatol, 26 (9): 1097-1104 (2012) IF: 2.98

Acral lesions of vitiligo are usually resistant to conventional lines of treatment as well as surgical interventions.

Objective: to clarify causes underlying resistance of acral lesions to pigmentation in vitiligo by studying some of the factors associated with mechanisms of repigmentation following photochemotherapy.

Methods: the study included twenty patients with active vitiligo. Skin biopsies were taken from lesional and perilesional skin of areas expected to respond (trunk and proximal limb) and skin of acral areas, before and after PUVA therapy. Sections were stained with H and E, Melan-A, MHCII, CD1a, SCF and c-kit protein.

Results: Before treatment acral areas showed significantly lower hair follicle density, melanocyte density, Langerhans cell (LC) density, epidermal MHCII expression, lesional SCF expression and perilesional c-kit expression. Following treatment with PUVA in both non-responsive acral and repigmenting non-acral lesions identical immunohistochemical changes in the form of significant decrease in LC density, epidermal MHC-II and SCF expression were observed.

Conclusion: the surprisingly similar histochemical changes in response to PUVA in acral and non-acral lesions did not manifest with clinical repigmentation except in non-acral ones. Factors such as inherent lower melanocyte density, lower melanocyte stem cell reservoirs and/or lower baseline epidermal stem cell factor may be considered as possible play makers in this respect.

Keywords: Acral Vitiligo; Melan-A; Mhcii.

83. The Efficacy of Laser Assisted Hair Removal in the Treatment of Acne Keloidalis Nuchae; A Pilot Study

Samia M. Esmat, Rania M. Abdel Hay, Ola M. Abu Zeid and Hala N. Hosni

Eur J Dermatol, 22 (5): 645-650 (2012) IF: 2.526

Laser-assisted hair removal causes miniaturization of hair shafts which are the principal contributors to inflammation in acne keloidalis nuchae (AKN). Objective: to assess the efficacy of hair reduction by long pulsed Nd-YAG laser as a therapeutic modality for AKN.

Methods: This interventional pilot trial included 16 patients with AKN who received 5 sessions of long pulsed Nd-YAG laser. Lesions were objectively and subjectively assessed at the third

and fifth laser sessions, and 1 year after. Global response to treatment was rated using a quartile grading scale regarding the percentage improvement in the count of papules and the size of the plaques. Biopsies were taken before and 2 weeks after the fifth session to evaluate the pathological changes associated with improvement of the treated lesions.
Results: All patients showed a significant improvement. the percentage of improvement in the early caseswas significantly higher when compared to late cases. Two weeks after the fifth session, all biopsies showed a significant decrease in the inflammatory infiltrate except one case. Sclerosis was markedly decreased. Complete absence of hair follicles and adenexawas observed, apart from in 2 cases.
Conclusion: Laser hair depilation can significantly improve this disfiguring chronic disorder. Starting treatment as early as possible achieves the best results and can stop the disease process if followed by maintenance sessions.

Keywords: Acne keloidalis nuchae; Hair reduction; Nd-Yag laser.

84. Reduction of Rantes Expression in Lesional Psoriatic Skin after Narrow Band Ultraviolet Therapy: A Possible Marker of Therapeutic Efficacy

Amr A. Rateb, Marwa M.T. Fawzi, Rania M. Abdel Hay, Faissal N. Mohammed and Khalda S. Amr

Eur J Dermatol, 22 (4): 482-487 (2012) IF: 2.526

The regulated upon activation, normal T cell expressed and secreted (RANTES) production in psoriatic lesions may amplify the inflammation in these lesions. Narrow band ultraviolet B (NB-UVB), a therapeutic modality for psoriasis, affects the expression of inflammatory cytokines and chemokines.
Objective: Our aimwas to evaluateRANTES mRNA expression in skin lesions of psoriasis before and after NB-UVB phototherapy.
Methods: This study included 25 psoriatic patients who received 24 sessions of NB-UVB. Skin biopsies were taken before and after phototherapy for real time PCR evaluation of RANTES mRNA.
Results: the relative quantitation values (RQ) of RANTES mRNA expression was significantly reduced after treatment. A significant negative correlation was found between pre-treatment RQ RANTES mRNA expression and post-treatment PASI score. We found a significant negative correlation between dRQ RANTES mRNA expression (difference between RQRANTES mRNAexpression before and after phototherapy) and PASI score after phototherapy.We found significant negative correlations between pre-treatment RQ RANTES mRNA expression and both initial response session number and total NB-UVB dose at the end of phototherapy.
Conclusion: NB-UVB reduces RANTES mRNA expression in psoriatic lesions. Pre-treatment RQ RANTES mRNA expression could be considered as a marker for clinical improvement and NB-UVB phototherapy efficacy.
Keywords: Chemokines; Nb-Uvb; Psoriasis; Rantes.

85. Psoriasis and Metabolic Syndrome: is Peroxisome Proliferator-Activated Receptor- γ Part of the Missing Link?

Rehab A. Hegazy, Rania M. Abdel Hay, Olfat Shaker, Safinaz S. Sayed and Dalia A. Abdel Halim

Eur J Dermatol, 22 (5): 622-628 (2012) IF: 2.526

Growing evidence points to a causative relationship between altered activity of peroxisome proliferator-activated receptor (PPAR) and psoriasis on the one hand, and its relationship with metabolic syndrome (MS) on the other.
Objective: Could altered PPAR levels be one of the culprits responsible for translating the metabolic state among psoriatic patients?
Materials and Methods: This investigational cross-sectional study included 60 psoriatics and 60 controls. Subjects were subgrouped according to the presence or absence of MS. Biopsies were taken from all subjects for immunohistochemical staining for PPAR and western blot technique was carried out.
Results: PPAR immunostaining in psoriatics was significantly lower than in controls with the lowest levels documented in patients with MS ($P<0.001$). PPAR immunostaining level was significantly lower in diabetics, hypertensive and insulin resistance patients ($P<0.05$). It also showed a significant positive correlation with high density lipoprotein (HDL) levels and significant negative correlation with age, psoriasis area and severity index (PASI), body mass index, and blood glucose levels. Similar results were obtained by western blot technique.
Conclusion: Reduced PPAR could be added to the factors responsible for translating the metabolic state among psoriatic patients. PPAR agonists can present an adjuvant therapeutic tool in treatment of psoriatics with MS.

Keywords: Immunohistochemistry; Metabolic Syndrome; Ppar.

86. Intralesional Cryosurgery and Intralesional Steroid Injection: A Good Combination Therapy for Treatment of Keloids and Hypertrophic Scars

Ahmed Hany Weshahy and Rania Abdel Hay

Dermatol Ther, 25: 273-276 (2012) IF: 1.687

Hypertrophic scars and keloids exhibit high recurrence rates following surgical excision. Intralesional cryosurgery (ILC) can achieve a higher degree of effectiveness than the surface cryotherapy.
The aim of this study is to assess the clinical efficacy of ILC usingWeshahy cryoneedles followed by IL steroid in a trial of getting rid of the fibrous mass by destruction, not by surgery to avoid being under tension of the new scar.
This study included 22 patients. Evaluation of the volume reduction of the lesions was done after a single ILC session followed by IL steroid injections. There was a significant decrease in the volume of the lesions after 4 months ($P < 0.01$), with a volume reduction of 93.5%. by using ILC at the base of keloids or hypertrophic scars, we can change the old fibrous tissue into a recent scar or granulation tissue which will respond more successfully to IL steroid injection.

Keywords: Hypertrophic Scars; Intralesional Steroid; Keloids.

87. Broad Band Uva: A Possible Reliable Alternative to Puva in the Treatment of Early-Stage Mycosis Fungoides

Medhat El Mofty, Shahira Ramadan, Marwa M. Fawzy, Rehab A. Hegazy and Safinaz Sayed

Photodermatol Photo, 28: 274-277 (2012) IF: 1.305

UVA1 phototherapy was found to induce marked improvement in skin lesions of patients with stages IA and IB mycosis fungoides (MF). Broad band UVA (BB-UVA) is composed of 80.1% UVA1, with similar mechanisms of action. Our aim was to evaluate the ef?cacy of BB-UVA in the treatment of early-stage MF. Thirty patients with early stage MF were included. They were divided into two equal groups receiving either BB-UVA at 20 J/cm2/ session or PUVA three times/week for 40 sessions. Clinical and histopathological evaluations were performed before and after therapy in addition to immunohistochemical measurement of CD4+ cells and Bcl-2. Patients were followed up for an average duration of 36 months. Comparable clinical and histopathological improvement was noted in MF patients in both groups. Clinical improvement graded 'Excellent' was achieved in 33% of patients in the BB-UVA versus 13.3% in the psoralen and UVA (PUVA) group. Long-term follow-up indicated superiority of BB-UVA over PUVA. BB-UVA group showed a more rapid clearance rate, shorter time to achieve complete clearance, a longer disease-free interval and lower relapse rate. the use of BB-UVA in the treatment of early-stage MF is comparable or even superior to PUVA regarding ef?cacy and remission periods.

Keywords: Bcl2; Broad Band-Uva; Mycosis Fungoides;Puva; Uva1.

88. A Comparative Study on Efficacy of Uva1 Vs. Narrow-Band Uvb Phototherapy in the Treatment of Vitiligo

Bakr Mohamed El-Zawahry, Dalia Ahmed Bassiouny, Rehab Mohamed Sobhi, Eman Abdel-Aziz, Naglaa Sameh Zaki, Dawoud Fakhry Habib and Dalia Mamdouh Shahin

Photodermatol Photo, 28: 84-90 (2012) IF: 1.305

Background/Purpose: Narrow-band ultraviolet B (NB-UVB) is considered the most effective and safe initial treatment for moderate-to-severe vitiligo but phototoxicity and possible carcinogenicity are the reported side effects. Ultraviolet A1 (UVA1) phototherapy has overlapping biological effects to NB-UVB and is relatively free of side effects associated with other phototherapy regimens.

Methods: Forty patients with vitiligo were included in this prospective, randomized controlled comparative clinical trial.Twenty patients received NB-UVB and 20 received UVA1 three times weekly for 12 weeks. the UVA1 group was divided into two subgroups. Ten patients received moderate and 10 received low dose of UVA1. Serum samples were collected before and after 36 sessions to assess soluble interleukin 2 receptor level. Patients were clinically evaluated before therapy then monthly according to Vitiligo Area Scoring Index (VASI) and Vitiligo European Task Force (VETF) scores. in addition, extent of response was determined by a blinded dermatologist comparing before and after therapy photographs. Pattern of response and side effects were recorded.

Results: NB-UVB was superior to UVA1 with a significant difference in blinded dermatological assessment ($P < 0.001$), percentage change in VASI score ($P < 0.001$) and percentage change in VETF area score ($P = 0.001$). No significant difference in side effects was observed between both groups. Comparing UVA1 subgroups, better response in moderate-dose group was found as regard to percentage change in VASI ($P < 0.001$) and percentage change in VETF area score ($P = 0.001$), while no significant difference was found in blinded dermatological assessment ($P = 0.121$).

Conclusion: NB-UVB phototherapy remains to be an effective and safe therapeutic option in vitiligo. Response to UVA1 in vitiligo seems to be dose dependent and seems to be of limited value in treatment of vitiligo as a monotherapy. Further studies combining it with other lines of therapy such as systemic steroids may prove beneficial.

Keywords: Nb-Uvb; Serum Il2 R; Uva; Vitiligo.

89. Comparative Study of the Effect of A Daily Steroid Regimen Versus A Weekly Oral Pulse Steroid Regimen on Morphological Changes, Blood Sugar, Bone Mineral Density and Suprarenal Gland Activity

Mohammad A. El-Darouti, Heba M. Mashaly, Eman El-Nabarawy, Amira M. El-Tawdy, Marwa M. Fawzy, Dorreya S. E. Salem, Khaled M. H. El-Kaffas and Dalia A. M. El Sayed.

J Dermatol Treat, 1-7 (2012) IF: 1.234

the most serious side effects of systemic steroids include osteoporosis and suprarenal suppression. Many steroid regimens have been suggested to minimize these side effects; one of them is oral steroid pulse therapy.

Objective: to compare the side effects of a daily oral steroid regimen versus a weekly oral steroid pulse regimen on bone mineral density and suprarenalsuppression.

Methods: Thirty patients with different skin diseases were divided into two groups: 15 for oral daily steroids (ODS) (group 1) and 15 for weekly oral pulse steroids (WOPS) (group 2). They were evaluated for bone mineral density (measured by DEXA) and suprarenal suppression (measured by serum cortisol level), morphological changes and blood sugar. Treatment was continued for 6 months to 3 years.

Results: Cushingoid features in group 1 were observed in 73%, yet they were not detectable in group 2. Disturbed blood sugar in group 1 was 33% and 0% in group 2. the serum cortisol level was lower in patients on ODS than those on WOPS. the effect of WOPS on bone mineral density was very limited in comparison with the ODS.

Conclusion: Weekly oral steroid pulse therapy induces no significant bone loss and no suprarenal suppression and can be an alternative option in the treatment of chronic disorders requiring long-term oral steroid therapy.

Keywords: Cushingoid Features; Dexa; Osteopenia; Osteoporosis; Steroid Pulse Therapy; Suprarenal Suppression.

90. Glutathione S-Transferase M1 and T1 Genetic Polymorphism in Egyptian Patients with Nonsegmental Vitiligo

D. A. Bassiouny and M. M. Khorshied

Clinical and Experimental Dermatology, 38: 160-163 (2012) IF: 1.198

Oxidative stress and accumulation of free radicals might play a role in the pathogenesis of vitiligo. Glutathione S-transferase (GST) is a multigene family of enzymes that detoxify oxidative stress products. in this study, genotyping by multiplex PCR of GSTM1 and GSTT1 in 101 women with nonsegmental vitiligo vulgaris and 101 agematched healthy female volunteers showed that only the GSTM1 null genotype (P = 0.04) was significantly overexpressed in patients with vitiligo. Analysis of the combined effect of GSTM1 and GSTT1 genotyping identified a significant association of risk for vitiligo with the GSTT1 / GSTM1 double-null type only (P = 0.01; OR = 2.69; 95% CI 1.12–6.46). Age of onset of vitiligo was significantly earlier in patients with the T1 null genotype (P < 0.01) and those with the T1- / M1+ and T1- / M1) combined genotypes (P < 0.01 and P = 0.01, respectively). in conclusion, the GSTM1 gene and the GSTM1 / GSTT1 double-null genotype may be a risk factor for vitiligo in Egyptian patients. Inability to cope with oxidative stresses because of GST deficiency may cause early disease onset.

Keywords: Glutathione S-Transferase; Genetic polymorphism; Nonsegmental vitiligo.

91. Downregulation of TLR-7 receptor in hepatic and non-hepatic patients with lichen planus

Amira El Tawdy and L. Rashed

International Journal Of Dermatology, (2012) IF: 1.142

Background: Lichen planus (LP) is an inflammatory disease of the skin and oral mucosa. The association of LP and chronic hepatitis C virus (HCV) is well established, with variable prevalence rates among different populations. TLRs are key regulators of both the innate response and the adaptive response. However, TLRs also interact with endogenous ligands released by necrotic cells, and this process can intensify autoimmune diseases such as rheumatoid arthritis and systemic lupus erythematosus.
Objective: To investigate the role of Toll-like receptor-7 (TLR-7) in LP through the detection of TLR-7 protein, and to compare between the expression of TLR-7 protein in HCV-positive and HCV-negative patients with LP.
Materials and methods: The study included 20 skin biopsies from patients with LP and 10 control biopsies. TLR-7 protein was detected by Western blot analysis. Detection of HCV- specific antibodies in the patient serum was done using ELISA technique.
Results: Our analysis revealed a significantly lower level of TLR-7 protein in all the LP skin biopsies compared with controls. The expression showed no difference between HCV-positive and HCV-negative patients.
Conclusion: We concluded that TLR-7 abnormal expression in LP may have an impact on the pathogenesis of the disease. TLR-7 receptor and HCV relationship in patients with LP could not be confirmed by this study.

Keywords: Glutathione S-transferase; Genetic polymorphism; Nonsegmental vitiligo.

92. Detection of Plasma and Urinary Monoamines and their Metabolites Levels in Non Segmental Vitiligo

Zeinab Shahin, Tahra M. Leheta, Rania M. Abdel Hay, Hanaa M. Abdel Aal and Laila A. Rashed

Acta Dermatovener Cr, 20 (1): 14-20 (2012) IF: 0.36

Vitiligo is one of the most troubling diseases to both patient and physician. Monoamines are chemical compounds derived from the hydroxyderivative of amino acids. They have been implicated in many dermatoses, but their role in the etiopathogenesis of vitiligo remains obscure.
The aim of the study was to evaluate the role of the neural factor in the pathogenesis of nonsegmental vitiligo (NSV) by measuring catecholamines and their metabolites in plasma and urine of patients suffering from NSV, and to correlate these factors with the onset and activity of the disease. the study included 20 patients with NSV and 20 healthy individuals.
All subjects were subjected to plasma and urine detection of catecholamines and 5-hydroxyindoleacetic acid (5-HIAA) using high-performance liquid chromatography and electrochemical detection. Comparison of plasma and urinary catecholamines and 5-HIAA between the patient and control groups revealed a statistically significant increase in the group of NSV patients (P<0.05). There was no statistically significant difference (P>0.05) between the patients with recent and old onset of NSV. in conclusion, the increase in the level of monoamines may be the initiating event in the pathogenesis of NSV.
Keywords: Catecholamines; Monoamines; Vitiligo.

Dept. of Diagnostic Radiology

93. Revisiting the Harem Conspiracy and Death of Ramesses Iii: Anthropological, Forensic, Radiological and Genetic Study

Zahi Hawass, Somaia Ismail ,Ashraf Selim, Sahar N Saleem, Dina Fathalla, Sally Wasef, Ahmed Z Gad, Rama Saad, Suzan Fares, Hany Amer, Paul Gostner, Yehia Z Gad, Carsten M Pusch and Albert R Zink

British Medical Journal, 1-9 (2012) IF: 14.093

to investigate the true character of the harem conspiracy described in the Judicial Papyrus of Turin and determine whether Ramesses III was indeed killed.
Design Anthropological, forensic, radiological, and genetic study of the mummies of Ramesses III and unknown man E, found together and taken from the 20th dynasty of ancient Egypt (circa 1190-1070 BC).
Results Computed tomography scans revealed a deep cut in Ramesses III's throat, probably made by a sharp knife. During the mummification process, a Horus eye amulet was inserted in the wound for healing purposes, and the neck was covered by a collar of thick linen layers. Forensic examination of unknown man E showed compressed skin folds around his neck and a thoracic inflation. Unknown man E also had an unusual mummification procedure. According to genetic analyses, both mummies had identical haplotypes of the Y chromosome and a common male lineage.
Conclusions This study suggests that Ramesses III was murdered during the harem conspiracy by the cutting of his throat.

Unknown man E is a possible candidate as Ramesses III's son Pentawere.

Keywords: Paleopathology; Paleoradiology; Forensic; Genetics; anthropology; Ramesses Iii; Unknown man E; Egypt; Ct; Dna; Ancient.

94. Diencephalic-Mesencephalic Junction Dysplasia: A Novel Recessive Brain Malformation

Maha S. Zaki, Sahar N. Saleem, William B. Dobyns, A. James Barkovich, Hauke Bartsch, Anders M. Dale, Manzar Ashtari, Naiara Akizu, Joseph G. Gleeson and Ana Maria Grijalvo-Perez

Brain, : 1-12 (2012) IF: 9.457

We describe six cases from three unrelated consanguineous Egyptian families with a novel characteristic brain malformation at the level of the diencephalic-mesencephalic junction. Brain magnetic resonance imaging demonstrated a dysplasia of the diencephalic-mesencephalic junction with a characteristic 'butterfly'-like contour of the midbrain on axial sections. Additional imaging features included variable degrees of supratentorial ventricular dilatation and hypoplasia to complete agenesis of the corpus callosum. Diffusion tensor imaging showed diffuse hypomyelination and lack of an identifiable corticospinal tract. All patients displayed severe cognitive impairment, post-natal progressive microcephaly, axial hypotonia, spastic quadriparesis and seizures. Autistic features were noted in older cases. Talipes equinovarus, non-obstructive cardiomyopathy and persistent hyperplastic primary vitreous were additional findings in two families. One of the patients required shunting for hydrocephalus; however, this yielded no change in ventricular size suggestive of dysplasia rather than obstruction. We propose the term 'diencephalic-mesencephalic junction dysplasia' to characterize this autosomal recessive malformation.

Keywords: Diencephalon; Mesencephalon; Brainstem malformation; Mental retardation; Brain wiring.

95. Endovascular Management of Early Hepatic Artery Thrombosis after Living Donor Liver Transplantation

Omar Abdelaziz, Karim Hosny, Ayman Amin, Sally Emadeldin, Shinji Uemoto and Mohamed Mostafa

Transplant International, 25: 847-856 (2012) IF: 2.921

to study the feasibility of endovascular management of early hepatic artery thrombosis (HAT) after living-donor liver transplantation (LDLT) and to clarify its role as a less invasive alternative to open surgery. A retrospective review of 360 recipients who underwent LDLT. Early HAT developed in 13 cases (3.6%). Diagnosis was performed using Doppler, CT angiography, and digital subtraction angiography. Intra-arterial thrombolysis (IAT) was performed using streptokinase or tPA. in case of underlying stricture, PTA was attempted. If the artery did not recanalize, continuous infusion was performed and monitored using Doppler US. Initial surgical revascularization was successful in 2/13 cases.

IAT was performed in 11/13 cases. the initial success rate was 81.8% (9/11), the failure rate was 18.2% (2/11). Rebound thrombosis developed in 33.3% (3/9). Hemorrhage developed after IAT in 2/11 cases (18.2%). Definite endovascular treatment of HAT was achieved in 6/11 cases (54.5%) and definite treatment (surgical, endovascular or combined) in 9/13 cases (69%). (Follow-up 4 months–4 years). Endovascular management of early HAT after LDLT is a feasible and reliable alternative to open surgery. It plays a role as a less invasive approach with definite endovascular treatment rate of 54.5%.

Keywords: Endovascular; Hepatic Artery Thrombosis; Living; Donor Liver Transplantation.

96. Elastography Ultrasound and Questionable Breast Lesions: Does It Count?

Sahar M. Mansourand Omar S. Omar

Eur J Radiol, 81: 3234-3244 (2012) IF: 2.606

Objective: to check possible additional value of using elastography ultrasound in the specification of questionable breast lesions.

Subjects and Methods: Questionable breast lesions on gray scale ultrasound examination had been further evaluated by elastography ultrasound in 97 cases with median age of 42 years. the studied lesions were pathologically proven (58 benign and 39 malignant) using true cut tissue / surgical excision biopsy that was considered the gold standard of reference.

Results: Conventional ultrasound categorization before biopsy included: category 3 (probably benign) in 42.3% (n=41), category 4a (low suspicion of malignancy) in 13.4% (n=13), category 4b (intermediate suspicion of malignancy) in 16.5% (n=16) and category 4c (moderate suspicion of malignancy) in 27.8% (n=27). We had evaluated elastography ultrasound regarding elastography strain scoring and quantitative strain ratio. Sensitivity, specificity and accuracy was 89.7%, 86.2% and 87.6% for conventional ultrasound, 92.3 %, 74.1% and 81.4% for elastogram 5-point scoring method and 87.1%, 89.6% and 88.6% for the calculated strain ratios respectively in the assessment of the examined breast lesions.

Conclusion: Ultrasound elastography, using both qualitative and quantitative methods can improve the performance of conventional B–mode ultrasound and enhance its specificity and accuracy in the diagnosis of questionable (BI-RADS category 3 &4) breast lesions.

Keywords: Breast; Ultrasound; Elastography; Strain Index.

97. Does Mri Add to Ultrasound in the Assessment of Disorders of Sex Development?

S.M. Mansoura, S.T. Hameda, L. Adel, R.M. Kamal and D.M. Ahmed.

Eur J Radiol, 81: 2403-2410 (2012) IF: 2.606

the objective of the study was to evaluate the need of magnetic resonance imaging and using different approaches (transabdominal, endoluminal and transperineal) in the proper assessment of disorders of sex development regarding gonadal detection and gender differentiation.

Subjects and Methods: Twenty five patients with abnormalities of sex disorders were included. They were classified into two groups according to the time of clinical presentation: Group 1(early onset) included eight cases. Their age ranged from one month to 12 years (mean age = 3.0). They presented with overt genital ambiguity of clitoral hypertrophy in a phenotypic female, non palpable testes or micropenis in a phenotypic male. Group 2 (late onset) included 17 cases. Their age ranged from 16 to 33

years (mean age 18.1). This group presented by distressing puberty symptoms of primary amenorrhea in a female phenotype or undescended testis and behaving as a male. Cases were subjected to Ultrasound and MR imaging examinations. Imaging results were correlated results of chromosomal and hormonal assays as well as laparoscopy findings.

Results: the study included: 10/25 cases (40 %) of Female pseudo-hermaphroditism, 13/25 cases (52%) of male pseudo-hermaphroditism, one case (4%) of true hermaphroditism and one case (4%) of pure gonadal dysgenesis. the accuracy of multi approach ultrasound was 89.8% compared to 85.7% in MR imaging.

Conclusion: Ultrasound should be considered the initial screening modality in the assessment of developmental sex disorders. MRI examination could be reserved for gonad identification when ultrasound examination fails to do so and for corrective surgery guidance.

Keywords: Mri; Ultrasound; Disorder of sex development.

98. Treatment with High Intensity Focused Ultrasound: Secrets Revealed

Islam Ahmed Shehata

Eur J. Radiol, 81: 534-541 (2012) IF: 2.606

for many decades open surgery remained the only way available for local control of body tumors. in order to decrease the patients' morbidity and mortality several image guided minimally invasive procedures have been adopted. High intensity focused ultrasound (HIFU) is an extracorporeal non invasive method for tumor ablation. High intensity ultrasonic waves can be focused to a focal point resulting in lethal elevation of the temperature at the target site with consequent damage of the tumoral cells. the advances in HIFU technology during the past two decades expanded the HIFU applications to include ablation of both benign and malignant tumors with different treatment strategies being implemented for each type. the aim of this review is to introduce the reader to the details of the treatment process including pretreatment preparation, treatment planning, different ablation strategies, patients' after care as well as the follow up regimens for the most common HIFU applications.

Keywords: Hifu; Therapeutic ultrasound; Thermal ablation.

99. Profound Microcephy, Primordial Dwarfism with Developmental Brain Malformations: A New Syndrome

Ghada M.H. Abdel-Salam, Mohamed S. Abdel-Hamid, Sahar N. Saleem, Mahmoud K.H. Ahmed, Mahmoud Issa, Laila K. Effat, Hisham F. Kayed, Maha S. Zaki and Khaled R. Gaber.

Am J. Med Genet A, : 0-0 (2012) IF: 2.391

We describe two sibs with a lethal form of profound congenital microcephaly, intrauterine and postnatal growth retardation, subtle skeletal changes, and poorly developed brain. the sibs had striking absent cranial vault with sloping of the forehead, large beaked nose, relatively large ears, and mandibular micro-retrognathia. Brain magnetic resonance imaging (MRI) revealed extremely simplified gyral pattern, large interhemispheric cyst and agenesis of corpus callosum, abnormally shaped hippocampus, and proportionately affected cerebellum and brainstem. in addition, fundus examination showed foveal hypoplasia with optic nerve atrophy. No abnormalities of the internal organs were found. This profound form of microcephaly was identified at 17 weeks gestation by ultrasound and fetal brain MRI helped in characterizing the developmental brain malformations in the second sib. Molecular analysis excluded mutations in potentially related genes such as RNU4ATAC, SLC25A19, and ASPM. These clinical and imaging findings are unlike that of any recognized severe forms of microcephaly which is believed to be a new microcephalic primordial dwarfism (MPD) with developmental brain malformations with most probably autosomal recessive inheritance based on consanguinity and similarly affected male and female sibs.

Keywords: Microcephaly; Mri; Mental retardation; Dwarfism.

100. Fetal Cardiac Magnetic Resonance (Cmr)

Saleem S.N.

Echocardiography - New Techniques, (2012)

Congenital heart disease (CHD) is present in 0.8% of all live births and is therefore one of the most common congenital malformations (Fyler et al., 1980). the spectrum of congenital heart defects is significantly higher in fetuses than in live born infants because of their reduced viability (Tennstedt et al., 1999). the prognosis of congenital heart disease can be poor; almost one third to one half of congenital heart defects are severe and lethal unless an intervention is done early (Hoffman & Kaplan, 2002). Prenatal diagnosis of congenital heart disease results in referral of mothers with affected fetuses to equipped centers where all facilities for neonatal cardiac care are available. the diagnosis of a congenital heart disease in a fetus should also prompt evaluation for genetic syndromes and associated non cardiac malformations (Cohen, 2001). Improvements in diagnosis and treatment have lead to more patients surviving to adulthood (Carvalho et al., 2002). Echocardiography is the gold standard diagnostic imaging tool for prenatal detection of cardiac malformations (Kleinman et al., 1980). Fetal echocardiography combines the benefit of accurate assessment of cardiac anatomy and function probability (Carvalho et al., 2002). However, Ultrasonography (US) is occasionally limited by acoustic window, poor images of the distal vasculature, fetal position, maternal adipose tissue, abdominal wall scar form previous abdominal or pelvic surgery, and is user dependent (Forbus et al., 2004). as a consequence, there remains room for other modalities in studying the fetal cardiovascular system. the intent of this chapter is to serve as a primer for fetal Cardiac Magnetic Resonance (CMR) based on our clinical cases of normal and abnormal fetal hearts. the chapter will include discussion of fetal Magnetic Resonance Imaging (MRI); fetal CMR technical aspects; MRI anatomy of the fetal heart; in-utero diagnosis of CHD and associated fetal syndromes; and future of fetal CMR.

101. Measuring Competence of Radiology Education Programs and Residents: the Egyptian Experience

Saleem S.N. and Sabry Y.Y.

Radiology Education: The Evaluation And Assessment of Clinical Competence, (2012)

the Ancient Egypt had an advanced elaborate medical education and practice ruled by a competent bureaucracy that apprenticed physicians to be practicing healers. in modern history, the Faculty of Medicine at Cairo University (Kasr Al-Ainy), established in

1827, continues the glory of Egypt in medical education as one of the biggest and oldest medical schools in Africa and the Middle East. Its central Radiology Department, with its total 77 radiologists, is responsible for clinical services as well as for providing multiple calibre radiology education programs for about 100 trainees annually from Egypt and neighbouring countries. Radiology education programs are planned for radiology residents to obtain master's degree (M.Sc.), for assistant lecturers to obtain medical doctorate (M.D.) and for visitor trainees. Objectives of radiology education programs include knowledge, practical skills, intellectual capabilities and communications with medical societies and communities. Trainees are assessed to determine if learning objectives have been fulfilled on a daily, weekly and biannual basis. Radiology education programs are measured for professional performance through the university's self-assessment studies; national assessment is measured through the National Authority for Quality Assurance and Accreditation in Education (NAQAAE), Egypt, and international assessment is measured through the World Federation for Medical Education (WFME).

Dept. of Ear Nose & Throat

102. Hypertrophied Tonsils Impair Velopharyngeal Function after Palatoplasty

Mosaad Abdel-Aziz

Laryngoscope, 122: 528-532 (2012) IF: 2.018

When tonsillar hypertrophy obstructing the airway is encountered in a child with a repaired cleft palate and velopharyngeal insufficiency, the surgeon may opt for tonsillectomy to relieve the airway obstruction, with possible effects on velopharyngeal closure. the aim of this study was to assess the impact of hypertrophied tonsils on velopharyngeal function in children with repaired cleft palate and to measure the effect of tonsillectomy on velopharyngeal closure and speech resonance.
Study Design: Case series.
Methods: Twelve children with repaired cleft palate and tonsillar hypertrophy underwent tonsillectomy to relieve airway obstruction. Preoperative and postoperative evaluation of velopharyngeal function was performed. Auditory perceptual assessment of speech and nasalance scores were measured, and velopharyngeal closure was evaluated by flexible nasopharyngoscopy.
Results: Preoperative impairment of velopharyngeal function was detected. However, significant postoperative improvement of speech parameters (hypernasality, nasal emission of air, and weak pressure consonants measured with auditory perceptual assessment) was achieved, and the overall postoperative nasalance score was improved significantly for nasal and oral sentences. Reduction of velopharyngeal gap size was detected after removal of hypertrophied tonsils. Although the improvement of velopharyngeal closure was not significant, three cases demonstrated complete postoperative closure with no gap.
Conclusions: Hypertrophied tonsils may impair velopharyngeal function in children with repaired cleft palate, and tonsillectomy is beneficial for such patients as it can improve the velopharyngeal closure and speech resonance. Secondary corrective surgery may be avoided in some cases after tonsillectomy.

Keywords: Tonsillectomy; Hypertrophied tonsils; Cleft palate; Velopharyngeal insufficiency.

103. The Effectiveness of Tonsillectomy and Partial Adenoidectomy on Obstructive Sleep Apnea in Cleft Palate Patients

Mosaad Abdel-Aziz

Laryngoscope, 122: 2563-2567 (2012) IF: 2.018

The most common cause of pediatric obstructive sleep apnea (OSA) is adenotonsillar hypertrophy (ATH). in cleft palate patients, however, the obstructive effects of ATH are more severe due to narrow airways. the aim of this study was to assess the effectiveness of tonsillectomy and/or partial adenoidectomy on OSA in cleft palate patients.
Study design: Case series.
Methods: Tonsillectomy and/or partial adenoidectomy was performed in 17 repaired cleft palate patients with tonsillar and/or adenoid hypertrophy and OSA. Apnea/hypopnea (A/H) index and minimum O2 saturation were measured before and after surgery. in addition, because these patients are vulnerable to speech impairment after pharyngeal surgery, auditory perceptual assessment (APA) and nasometric assessment of speech were performed.
Results: the mean preoperative A/H index was 17.6 6 3.9, and the mean preoperative minimum O2 saturation was 88.7 6 1.5%. Both parameters improved postoperatively, to 1.9 6 2.3 and 93.7 6 1.5% respectively, and the changes were significant ($P < 0.001$). in 12 cases (70.6%), A/H indexes were normalized following surgery. Associated comorbidities such as retrognathia and narrow pharyngeal airways may underlie incomplete recovery in some cases. There were no significant postoperative changes in APA and nasalance scores.
Conclusions: in most cases, tonsillectomy and/or partial adenoidectomy is an effective method for treatment of OSA in repaired cleft palate patients presenting with tonsillar and/or adenoid hypertrophy. However, some cases may need further procedures to relieve airway obstruction due to associated comorbidities.

Keywords: Obstructive sleep apnea; Cleft palate; Polysomnography; Tonsillectomy; Adenoidectomy.

104. The Effect of Steroid Injection of the Tongue Base on Reducing Postoperative Airway Obstruction in Cleft Palate Repair

M. Abdel-Aziz, A. Ahmed, N. Naguib and M. I. Abdel-Khalik

Int. J. Oral Max Surg, 41: 612-615 (2012) IF: 1.506

Upper airway obstruction (UAO) is a well known complication of cleft palate repair. the aim of this study was to evaluate the efficacy of local tongue base steroid injection in preventing or reducing the lingual oedema that can cause UAO following palatoplasty. Thirty children with unilateral complete cleft palate were included. They were randomly divided into two equal groups. Children in group I received intravenous dexamethasone whilst children in group II received both intravenous dexamethasone and local betamethasone injected at the tongue base. Both groups underwent the same technique of palatoplasty, postoperative breathing was assessed and UAO was rated as mild, moderate or severe. Postoperative UAO developed in six cases (40%) in group I and in two cases (13%) in group II. in group I, it was mild in three cases, moderate in one case, and severe in two cases. in group II, it was mild in one case and moderate in another

case. Despite the differences in the number and severity of the condition in both groups, comparison was statistically insignificant. Local steroid injection of the tongue base during cleft palate surgery reduced the incidence and severity of post-palatoplasty UAO.

Keywords: Local steroid injection; Tongue base; Airway obstruction; Cleft palate; Postoperative oedema.

105. Origin Oriented Management of Inverted Papilloma of the Frontal Sinus

Reda H. Kamel, Ahmed F. Abdel Fattah and Ayman G. Awad

Rhinology, 262-268 (2012) IF: 1.321

Despite the great progress in endoscopic management of inverted papilloma (IP), involvement of the frontal sinus (FS) remains a challenge.

Methodology: Six cases of FS IP were assessed. Extent of surgery included simple frontal recess clearance, extended frontal sinu-sotomy, and modified Lothrop approach. There was no need for adjuvant frontal trephination or an external osteoplastic flap.

Results: FS involvement was observed in 6 out of 119 cases of IP (5%). in one case, IP was originating from the FS and in four it was extending to the FS. the sixth case had a wide origin from the anterior ethmoid and FS. Complete resection of FS IP was achieved in all cases with a single incidence of CSF leak. No recurrence was identified after a follow-up period of an average of 27 months.

Conclusions: FS IP originating outside FS can be delivered transnasally with or without frontal ostium widening and preserving FS mucosa and bone. Inverted papillomata originating from FS proper and those with origin from inside and outside the FS can also be resected tranasnasally after widening of the frontal ostium with removal of surrounding mucosa and drilling or curettage of underlying bone at attachment sites.

Keywords: Inverted papilloma; Frontal sinus; Origin; Endoscopic surgery; Transnasal.

106. Furlow Technique for Treatment of Soft Palate Fistula

Mosaad Abdel-Aziz, Hassan El-Hoshy, Nader Naguib and Ramez Reda

Int. J. Pediatr Otorhi, 76: 52-56 (2012) IF: 1.167

Fistula of the palate is a common complication of palatoplasty, it leads to nasal regurgitation of fluids and hypernasality of speech. Its treatment is technically difficult due to paucity and fibrosis of palatal tissues. the aim of this study was to evaluate the efficacy of closure of soft palate fistula by using Furlow double opposing Z-palatoplasty.

Methods: Nineteen patients were subjected for repair of their soft palate fistulas using Furlow Z-plasty. Pre and postoperative speech analysis using auditory perceptual assessment, measurement of nasalance score using nasometric assessment, and measurement of velar movement using flexible nasopharyngoscopy were done.

Results: All cases showed complete closure of their fistulas at first attempt, with no operative or postoperative complications. Recurrence was not recorded in any case after a follow up period of at least 12 months. Significant improvement of speech quality and nasalance score was achieved. Flexible nasopharyngoscopy showed postoperative increase in velar movement which was not significant relative to the preoperative records.

Conclusions: Treatment of soft palate fistula by using Furlow technique is an effective method as a primary treatment with a high success rate and a good functional outcome.

Keywords: Palatoplasty; Z-Plasty; Palatal fistula; Hypernasal speech nasometry.

107. Repair of Submucous Cleft Palate with Furlow Palatoplasty

Mosaad Abdel-Aziz, Hassan El-Hoshy, Nader Naguib and Nassim Talaat

Int. J. Pediatr Otorhi, 76: 1012-1016 (2012) IF: 1.167

Submucous cleft palate is a congenital anomaly caused by abnormal insertion of the levator veli palatini muscles to the posterior border of the hard palate, normally these muscles unite together to form the levator sling. Velopharyngeal insufficiency (VPI) may occur in about 10% of cases, our previous treatment protocol was pharyngeal flap that may result in obstructive breathing. Furlow technique seems to be a more physiologic solution as it reconstructs the levator sling. the aim of this study was to determine the efficacy of Furlow palatoplasty in treatment of submucous cleft palate cases presented with VPI.

Methods: This prospective study was conducted on 15 children with symptomatic submucous cleft palate. All cases were treated by Furlow double opposing Z-plasty technique for repositioning of levator muscles, preoperative and postoperative speech evaluation was done using auditory perceptual assessment and nasometry, while velopharyngeal closure was assessed with flexible nasopharyngoscopy.

Results: Significant improvement of speech and overall nasalance score were achieved. Flexible nasopharyngoscopy showed complete velopharyngeal closure of 13 cases (86.7%), while one case needed secondary pharyngoplasty for correction of residual VPI and the parents of the other case refused secondary surgery as the speech improvement of their child was satisfactory.

Conclusions: Furlow palatoplasty technique is an effective method in treatment of VPI in cases of submucous cleft palate as it has high success rate with no morbidity.

Keywords: Submucous cleft palate; Furlow palatoplasty; Velopharyngeal insufficiency; Hypernasal speech.

108. Lack of Significant Estrogen and Progesterone Receptor Expression in Nasal Telangiectasias in Hereditary Hemorrhagic Telangiectasia: an Immunohistochemical Analysis

Behfar Eivazi, Jochen A. Werner, Marion Roessler, Hesham Negm and Afshin Teymoortash

Acta Oto-Laryngologica, 132: 86-89 (2012) IF: 1.084

This immunohistochemical study of estrogen and progesterone receptors could not confirm a significant expression in nasal telangiectasias. Thus, a specific effect of these hormones or anti-hormone therapy on malformed nasal vessels has to be questioned and only offered under strict clinical control.

Objective: the efforts to control recurrent epistaxis in hereditary hemorrhagic telangiectasia (HHT) using alternative methods are very intense. Hormone or anti-hormone therapy has frequently been postulated and the reported results are controversial.

Therefore it was important to find an explanation regarding a possible impact of hormonal therapies by immunohistochemical evaluation of progesterone and estrogen receptor expression on nasal telangiectasias of affected patients.
Methods: Tissue samples of nasal mucosa with evidence of telangiectasias from 14 patients with HHT were analyzed for the expression of progesterone and estrogen receptors on the nuclei of endothelial cells of the malformed vessels using immunohistochemistry.
Results: Progesterone receptors were not detected in any of the cases and only two cases showed a weak expression of estrogen receptors with an immunoreactive score of 2/12.

Keywords: Osler'S disease; Hht; Hormone receptors; Epistaxis; Estrogen; Progesterone.

109. Congenital Cholesteatoma of the Infratemporal Fossa with Congenital Aural Atresia and Mastoiditis: A Case Report

Mosaad Abdel-Aziz

Bmc Ear, Nose and Throat Disorders, 12 (6): 2- 4 (2012)

Congenital cholesteatoma may be expected in abnormally developed ear, it may cause bony erosion of the middle ear cleft and extend to the infratemporal fossa. We present the first case of congenital cholesteatoma of the infratemporal fossa in a patient with congenital aural atresia that has been complicated with acute mastoiditis.
Case presentation: A sixteen year old Egyptian male patient presented with congenital cholesteatoma of the infratemporal fossa with congenital aural atresia complicated with acute mastoiditis. Two weeks earlier, the patient suffered pain necessitating hospital admission, magnetic resonance imaging revealed a soft tissue mass in the right infratemporal fossa. on presentation to our institute, Computerized tomography was done as a routine, it proved the diagnosis of mastoiditis, pure tone audiometry showed an air-bone gap of 60 dB. Cortical mastoidectomy was done for treatment of mastoiditis, removal of congenital cholesteatoma was carried out with reconstruction of external auditory canal. Follow-up of the patient for 2 years and 3 months showed a patent, infection free external auditory canal with an air-bone gap has been reduced to 35db. One year after the operation; MRI was done and it showed no residual or recurrent cholesteatoma.
Conclusions: Congenital cholesteatoma of the infratemporal fossa in cases of congenital aural atresia can be managed safely even if it was associated with mastoiditis. It is an original case report of interest to the speciality of otolaryngology.

Keywords: Congenital Cholesteatoma; Congenital Aural Atresia; Mastoiditis; Infratemporal Fossa.

110. Characteristics of Auditory Brainstem Response Latencies in Children with Autism Spectrum Disorders

Abeir Osman Dabbous

Audiological Medicine, Uk., 122-131 (2012)

Hypersensitivity to loud sounds is commonly noticed in children with autism spectrum disorders.
Objective and methods: This was a cross-sectional study that included 50 children, ages ranging from 1.5 to 3.33 years, divided into a study group of 25 autistic children with normal hearing and a control group of 25 normal hearing healthy children. the aim of this research was to the assess any abnormality in the loudness growth function objectively using auditory brainstem response (ABR), as well as to detect any ABR abnormalities in normal hearing autistic children with delayed language development.
Results: Forty-four percent of normal hearing autistic children showed a lower threshold compared to healthy controls.
They also showed significantly delayed wave III, but within-normal wave V, and consequently a longer inter-peak interval (IPI): I III and shorter IPI: III V, reflecting retro-cochlear dysfunction that may be related to their difficulty in communication. the mean slope of wave V latency intensity curve did not differ between autism and their controls, reflecting normal loudness growth. Male autistic children showed statistically significant longer latencies of wave V than females except at high intensities, but there was no statistically significant difference between them with regard to the mean slope of wave V latency intensity curve.
Conclusion: Autistic children with normal hearing showed a within-normal loudness growth indicating that their abnormal reactions to sounds may either be phonophobia, an efferent system affection or a more central pathology that needs further evaluation. They also showed a retro-cochlear dysfunction that may be related to their difficulty in communication.

Keywords: Auditory brainstem response; Autism; Hypersensitivity; Latency-intensity function; Loudness.

111. Does Reduced Frequency Selectivity in Children with Mild to Moderate Sensorineural Hearing Loss Affect Frequency Discrimination in Mismatch Negativity and Pitch Pattern Sequence Tests?

Mohamed Ibrahim Shabana, Amani Ahmed Shalaby, Abeir Osman Dabbous and Abir Abd-El-Meneim Emara

Hearing, Balance and Communication, 10 (1): 40-49 (2012)

Sensorineural hearing loss (SNHL) results in reduced sensitivity, abnormal growth of loudness, reduced frequency selectivity and reduced temporal resolution (Edwards,2003). Our aim was to study frequency discrimination abilities in children with SNHL using the psychophysical Pitch Pattern Sequence Test (PPST) and an electrophysiological measure, the Mismatch Negativity Test (MMN).
Methods: This is a cross-sectional study that included 90 children, ages ranging from 6 - 12 years, divided into a study group of 60 children with mild to moderate SNHL and a control group of 30 normal hearing children. Both groups were subdivided into 3 subgroups according to age.
Results: Subgroups of children with SNHL showed statistically significant poorer scores on the PPST than their well-matched controls. Although MMN can be elicited in children with mild to moderate degree of SNHL, its latency was prolonged. the older control subgroups did not show any statistically significant better scores on the PPST; MMN latencies were longer with increased duration of hearing loss. Degree of hearing loss, gender and side had no effect on PPST or MMN. There was no statistically significant correlation between the results of the PPST and MMN.
Conclusion: SNHL affects frequency discrimination abilities demonstrated in poor scores on the PPST and prolonged MMN latency.

Keywords: Mismatch negativity; Pitch pattern test; Frequency discrimination; Sensorineural hearing loss.

112. Mucoepidermoid Carcinoma of the Tongue in a Child

Mosaad Abdel-Aziz

Int. J. of Pediatric Otorhinolaryngology Extra, 7*:* 6-8 (2012)

Tongue base tumors are not common, they are mostly malignant and although the rarity of mucoepidermoid carcinoma of tongue base, it constitutes more than 50% of malignant lesions of salivary glands in this region. in this report, we present a 15-year old girl with mucoepidermoid carcinoma of tongue base with discussion of histopathological types of the tumor and its management.

Keywords: Tongue base; Mucoepidermoid carcinoma; Minor salivary gland tumors; Pediatric malignancy.

113. Medicine and Otorhinolaryngology in Ancient Egypt

Hesham Negm

Xi Apo Manual Of Pediatric Otorhinolaryngology, (2012)

Medicine has always been one of the most honorable professions throughout history. It took different forms and types according to the needs in each time. (Magic, Religion….) Medicine was advanced and physicians acquired a highly respectable position in ancient Egypt. Because the Egyptians believed in the after life, they did every effort to preserve the human body in a good condition, by medical and surgical measures during life, and by mummification after death. This medical knowledge continued to grow and develop till the Hellenestic era when Alexandria with its famous library became the center of science and education in the ancient world. Imhotob,Hesi-Re, and Ny Ankh Re were among the most famous Ancient Egyptian physisians. the medical papyri are the first medical texts, date from late 12th to 20th Dynasty (1993-1090B.C). the Ebers, and Edwin smith are the most important.Edwin Smith papyrus describe many OtoRhinLaryngological conditions among other surgical cases. the 1st convincing evidence of successful intentional mummification occurs in the 4th dynasty, in the Giza tomb of Queen Hetep Heres (the mother of Khufu). the 2 crucial steps to arrest the decomposition of the body were evisceration and dehydration of the tissues Recent studies using multi slice CT scanner with 3D reformatting, and volume rendering technique, proved that in most of the mummies of the 18th dynasty the brain was not taken out, except the mummy of Tutankhamun, where broken bones and a hole were found in the base of the skull.

Dept. of Emergency Medicine

114. Molecular Imaging of Early $\alpha_v\beta_3$ Integrin Expression Predicts Long-Term Lv Remodeling after Myocardial Infarction in Rats

Hossam M. Sherif, Antti Saraste,Stephan G. Nekolla, Eliane Weidl, Sybille Reder, Arne Tapfer, Martina Rudelius, Takahiro Higuchi, Rene M. Botnar, Hans-J€urgen Wester and Markus Schwaiger

J. Nucl Med, 53 (2): 318-323 (2012) IF: 6.381

^{18}F-galacto-RGD (^{18}F-RGD) is a PET tracer binding to avb3 integrin receptors that are upregulated after myocardial infarction (MI) as part of the healing process. We studied whether myocardial 18F-RGD uptake early after MI is associated with long-term left-ventricle (LV) remodeling in a rat model.

Methods: Wistar rats underwent sham operation (n = 9) or permanent coronary ligation (n = 25). One week after MI, rats were injected with ^{18}F-RGD to evaluate $\alpha_v\beta_3$ integrin expression using a preclinical PET system. in the same rats, LV volumes and defect size were measured 1 and 12 wk after MI by ^{13}N-ammonia PET and MRI, respectively.

Results: One week after MI, ^{18}F-RGD uptake was increased in the defect area as compared with the remote myocardium of MI rats or sham-operated controls (percentage injected dose per cubic centimeter, 0.20 ± 0.05 vs. 0.06 ± 0.03 and 0.07 ± 0.04, P <0.001). at this time, ^{18}F-RGD uptake was associated with capillary density in histologic sections.

Average ^{18}F-RGD uptake in the defect area was lowest in the rats demonstrating greater than 20% relative increase in the LV end-diastolic volume from 1 to 12 wk (percentage injected dose per centimeter cubed, 0.15 ± 0.07 vs. 0.21 ± 0.05, P < 0.05). in a multivariable logistic regression analysis, low ^{18}F-RGD uptake was a significant predictor of increase in end-diastolic volume (r = 0.51, P < 0.05).

Conclusion: High levels of ^{18}FRGD uptake in the perfusion defect area early after MI were associated with the absence of significant LV remodeling after 12 wk of follow-up. These results suggest that $\alpha_v\beta_3$ integrin expression is a potential biomarker of myocardial repair processes after MI and enables the monitoring of these processes by molecular imaging to derive possible prognostic information.

Keywords: ^{18}F; Galacto-Rgd; Pet; Lv Remodeling; Mri; Myocardial Infarction.

115. Diastolic Dysfunction in Septic Patients in Correlation with Renal Function

Sabry A. Omar, Mohamed Elshafey, Khalid Toema and Rania El-Hoseiny

Life Science Journal, 9 (1): 572-579 (2012) IF: 0.073

Septic shock remains one of the most challenging medical conditions, with increasing incidence over the last years. One of the most important features of sepsis is myocardial dysfunction and renal impairment.

Objective: is to evaluate diastolic dysfunction in patient with septicemia and detect its relationto renal impairment in this subset of patients.

Methods: the study was conducted on 40 patients diagnosed to have various degrees of systemic sepsis admitted to Intensive Care Unit of Mansoura International Specialized Hospital.After exclusion of patients with structural heart diseases and renal impairment, each patient was subjected to the following: Full clinical evaluation, complete laboratory investigation -including serum troponin I &creatinine levels- and echocardiographic evaluation with measuring of left ventricular end-diastolic diameter (LVEDD), left ventricular end-systolic diameter (LVESD), calculation of LVEF& assessment of diastolic function measuring mitral annulus E/A ratio, E deceleration time (DT) & isovolumic relaxation time (IVRT) ResultsA non -randomized non-controlled prospective study done between July 2009 to August 2010. the study included 40 patients, 24 males & 16 females, with mean age of 62±12. Renal impairment (defined as serum creatinine > 1.4 mg/dl following a normal creatinine level on admission associated with oliguria <0.5 ml/kg/6hours)was

present in 78% (31 pts). These pts had significantly shorter IVRT &shorter DT than those with normal renal function. LVEDD and LVESD were significantly larger&LVEF was significantly lower in pts with renal impairment. Renal impairment was associated with significantly lower hemoglobin, higher liver enzymes, higher bilirubin and higher troponin levels. Eighteen patients had SIRS & sepsis (group A, 45%) & 22 had septic shock (group B, 55%). Patients with septic shock showed significantly higher creatinine & significantly higher troponin level than pts with sepsis. Regarding ventricular functions, LVEDD and LVESD were significantly larger&LVEF was significantly lower in septic shock ptsthan pts with SIRS & sepsis. in group B, both DT and IVRT were significantly shorter than group A.Overallmortality was 55% (100% in septic shock versus 0% in pts with SIRS & sepsis).

Conclusion: the presence of renal impairment was associated with a more severe form of diastolic & systolic dysfunction in septic patients. Septic shock patients, showed larger ventricular dimensions and significant systolic and diastolic dysfunctions than patients with sepsis. Higher evidence of myocardial injury in septic shock.

Keywords: Diastolic Dysfunction; Septic Patients; Renal Function.

Dept. of Endemic

116. Ns5a Sequence Heterogeneity of Hepatitis C Virus Genotype 4A Predicts Clinical Outcome of Pegylated-Interferon–Ribavirin Therapy in Egyptian Patients

Ahmed El-Shamy, Ikuo Shoji, Wafaa El-Akel, Shymaa E. Bilasy, Lin Deng, Maissa El-Raziky, Da-peng Jiang, Gamal Esmat and Hak Hotta

J Clin Microbiol, 50 (12): 3886-3892 (2012) IF: 4.153

Hepatitis C virus genotype 4 (HCV-4) is the cause of approximately 20% of the 180 million cases of chronic hepatitis C in the world. HCV-4 infection is common in the Middle East and Africa, with an extraordinarily high prevalence in Egypt. Viral genetic polymorphisms, especially within core and NS5A regions, have been implicated in influencing the response to pegylated-interferon and ribavirin (PEG-IFN/RBV) combination therapy in HCV-1 infection. However, this has not been confirmed in HCV-4 infection. Here, we investigated the impact of heterogeneity of NS5A and core proteins of HCV-4, mostly subtype HCV-4a, on the clinical outcomes of 43 Egyptian patients treated with PEG-IFN/RBV. Sliding window analysis over the carboxy terminus of NS5A protein identified the IFN/RBV resistance-determining region (IRRDR) as the most prominent region associated with sustained virological response (SVR). Indeed, 21 (84%) of 25 patients with SVR, but only 5 (28%) of 18 patients with non-SVR, were infected with HCV having IRRDR with 4 or more mutations (IRRDR≥4) (P=.0004). Multivariate analysis identified IRRDR≥4 as an independent SVR predictor. the positive predictive value of IRRDR≥4 for SVR was 81% (21/26; P=.002), while its negative predictive value for non-SVR was 76% (13/17; P=.02). on the other hand, there was no significant correlation between core protein polymorphisms, either at residue 70 or at residue 91, and treatment outcome. in conclusion, the present results demonstrate for the first time that IRRDR≥4, a viral genetic heterogeneity, would be a useful predictive marker for SVR in HCV-4 infection when treated with PEG-IFN/RBV.

Keywords: Ns5a Sequence; Hcv; Pegylated Interferon; Ribavirin; Hcv4a.

117. Tamoxifen Alleviates Hepatitis C Virus-Induced Inhibition of Both Toll-Like Receptor 7 and Jak-Stat Signalling Pathways in Pbmcs of Infected Egyptian Females

I. O. Fawzy, M. Negm, R. Ahmed, G. Esmat, N. Hamdi and A. I. Abdelaziz

J Viral Hepatitis, (2012) IF: 4.088

Hepatitis C virus (HCV) is a major health concern in Egypt being highly prevalent among Egyptians. the two genders experience different responses to HCV infection and show variations in response to interferon (IFN)-based therapy that may be attributed to sex hormones. We previously demonstrated the suppressive effect of 17β-estradiol (E2) on the expression of the IFN-stimulated gene MxA in HCVinfected peripheral blood mononuclear cells (PBMCs). the selective oestrogen receptor (ER) modulator Tamoxifen has been shown to have an antiviral effect against HCV, but its effect on the host immune response is unknown. We investigated the effect of Tamoxifen on the IFN signaling pathways in PBMCs of HCV-infected Egyptian females. We pooled PBMCs and treated then with exogenous interferon alpha (IFNα) or the TLR7 ligand, Imiquimod, and quantified the relative expressions of MxA using RTqPCR. Studies were performed with and without Tamoxifen pretreatment. Pretreatment with Tamoxifen reversed the suppressive effect of E2 on the JAK-STAT pathway in IFNα-treated PBMCs as indicated by a significant increase in MxA expression (P = 0.05*). Tamoxifen pretreatment also significantly upregulated MxA expression in Imiquimod-treated PBMCs (P = 0.0011**), an effect not ascribed to ER blocking nor to an upregulation in TLR7 expression because Tamoxifen showed no potentiating effect on the expression of the receptor. in conclusion, our findings reveal that Tamoxifen has immunomodulatory effects whereby it enhances the host IFN signalling pathways during HCV infection.

Keywords: Females; Hepatitis C virus; Interferon; Jak-stat.

118. The Future for the Treatment of Genotype 4 Chronic Hepatitis C

G. Esmat, M. El Raziky, M. El Kassas, M. Hassany and M.E. Gamil

Liver International, 146-150 (2012) IF: 3.824

Hepatitis C virus genotype 4 (HCV-4) is the most common type of hepatitis C virus (HCV) in the Middle East and Africa, in particular Egypt. Since the development of new protease inhibitors, the response of HCV-4 to the standard regimen of treatment (pegylated interferon/ribavirin) lags behind other genotypes and has become the most resistant type to treat. the development of therapeutic strategies for all patients with HCV-4 whether they are naïve, have experienced a virological breakthrough, are relapsers or non-responders is still a considerable challenge. New types of interferon (Consensus Interferon, Y-shaped, Albinterferon…) and new direct action antiviral drugs (Nitazoxanide, Vit.D, other) may improve the treatment of patients with HCV-4. the IL28B CC polymorphism may be associated with sustained virological response.

Introduction Hepatitis C virus (HCV) is the cause of a significant proportion of cases of chronic liver disease, hepatocellular carcinoma (HCC) and deaths from liver disease, and is the most common indication for liver transplantation (LTx). Projections based on the current prevalence of infection and anticipated rates of progression suggest that morbidity and mortality as well as the costs of medical care for HCV infection will increase alarmingly in the next two decades (1). Six major genotypes (1–6) and more than 50 subtypes of HCV have been described (2). in general, HCV genotype 4 (HCV4) is predominant in Africa and the Middle East (3). in Egypt, where hepatitis C is highly endemic (up to 15% of the population), 91% of the patients are infected with HCV (4). Numerous studies have confirmed that HCV4 is the predominant HCV.

Keywords: Genotype 4; Hcv; Il28b polymorphism.

119. Non-Invasive Prediction of Hepatic Fibrosis in Patients with Chronic Hcv Based on the Routine Pre-Treatment Workup

Marwa Khairy, Mahassen Abdel-Rahman, Maissa El-Raziky, Wafaa El-Akel, Naglaa Zayed, Hany Khatab and Gamal Esmat

Hepatitis Monthly, 12 (11): 1-6 (2012) IF: 2.19

Background: Hepatic fibrosis is an inclusion indicator for treatment and a major independent predictor of treatment response in patients with chronic hepatitis C. Liver biopsy, considered as the ?ggold standard?h for evaluating liver fibrosis, has carried some drawbacks. Currently used noninvasive predictors of fibrosis are considered less accurate than liver biopsy.

Objectives: Our aim was to assess noninvasive predictors of fibrosis in patients with chronic hepatitis C using the routine laboratory pre-treatment workup. Patients and Methods: Cross sectional study including 4289 Egyptian patients with chronic hepatitis C were assessed for the need to interferon and ribavirin therapy. Routine pre-treatment workup and reference needle liver biopsy were performed. FIB-4 index, APRI and modified APRI scores were validated. Patients were divided into two groups, first with no or minimal fibrosis, and second with moderate and marked fibrosis using the Metavir score.

Results: Multivariate logistic regression analysis showed that age, body mass index, aspartate aminotransferase, alpha fetoprotein, platelets count, FIB-4 index, APRI and modified APRI score were significant independent predictors of fibrosis. Age >43 years, aspartate aminotransferase >47U/L, platelets <205?~103/mm3, and alpha fetoprotein >2.6 ng/ml had the highest cutoff points in receiver operator characteristic curves. Taking into account the four variables together; the presence of . 2 variables is associated with moderate and advanced fibrosis with a sensitivity of 0.81, specificity of 0.5, positive predictive value of 0.53 and negative predictive value of 0.79. FIB-4 index represented the best performing receiver operator characteristic curve for diagnosing moderate and marked fibrosis among other independent factors with a sensitivity of 0.74, specificity of 0.6, positive predictive value of 0.56 and negative predictive value of 0.76.

Conclusions: Chronic HCV pre-treatment routine work up and composite fibrosis scores are good noninvasive predictor of liver fibrosis and can be used as an alternative method to invasive liver biopsy without adding more financial expenses to the treatment.

Keywords: Hepatitis C; Liver Cirrhosis; Fibrosis.

120. Association of IL 28B Snp with Progression of Egyptian Hcv Genotype 4 Patients to End Stage Liver Disease

Mostafa K. El-Awady, Lotiaf Mostafa, Ashraf A. Tabll, Tawfeek H. Abdelhafez, Noha G Bader El Din, Naglaa Zayed, Reem El Shenawy, Yasmin El Abd, Reham M. Hasan, Hosam Zaghlol, Hesham El Khayat and Ashraf O. Abdel Aziz

Hepatitis Monthly, 12(4): 272-277 (2012) IF: 2.19

IL28B single nucleotide polymorphisms (SNPs) play important roles in the management of hepatitis C virus (HCV) infections and are strongly associated with spontaneous and treatment-induced HCV clearance.

Objectives: in the present study, the association between IL28B variants and the progression of HCV infection in Egyptian patients infected with type 4a virus will be examined. Patients and Methods: Frequencies of the protective genotype C/C of SNP, rs12979860 were determined in healthy subjects, spontaneous resolvers, and chronic HCV type 4 patients with low F scores and in patients with end stage liver disease (ESLD). This study included a total of 404 subjects. Patients infected with HCV type 4a (n = 304) were divided into; chronic hepatitis C (CHC) with low F scores (CHC, n = 110), end stage liver disease (n = 110), liver cirrhosis (LC) (n = 35) and hepatocellular carcinoma (HCC) patients (n =75), spontaneous resolvers of HCV infection (n = 84) were also included. A healthy group representing the Egyptian population (n = 100) was also included in the genotyping of IL28B. the later was typed via a polymerase chain reaction based restriction fragment length polymorphism (PCR-RFLP) assay analysis on purified genomic DNA extracted from all individuals.

Results: A significant increase ($P < 0.0005$) was observed in frequencies of IL-28B rs12979860 C/C genotypes in the healthy population, than in the CHC, LC and HCC groups (C/C = 48%, 13%, 0%.and 0% respectively). on the other hand the C/C genotype was significantly higher ($P < 0.0005$) in spontaneous resolvers than in healthy subjects. A comparable significant increase in the frequency of C/T allele accompanied by mild elevation of T/T allele frequency, were detected along the progression towards ESLD.

Conclusions: Genotype C/C is associated with viral clearance during acute infection. the sharp decline in the C/C genotype from healthy to CHC subjects and the total absence of the C/C genotype in ESLD suggests a central role of this genotype against HCV disease progression.

Keywords: Hepatitis C; Interleukin 28B polymorphism; Genetic liver; Cirrhosis carcinoma; Hepatocellular.

121. Serum Mannan-Binding Lectin in Egyptian Patients with Chronic Hepatitis C: its Relation to Disease Progression and Response to Treatment

Serag Esmat, Dalia Omran, Gihan A. Sleem and Laila Rashed

Hepatitis Monthly, 12 (4): 259-264 (2012) IF: 2.19

Chronic hepatitis C virus (HCV) infection is a major worldwide public health problem. Egypt has the highest prevalence of adult HCV infection in the world, averaging 15%–25% in rural communities. Mannan-binding lectin (MBL) is a liver-derived pluripotent serum lectin that plays a role in the innate immune system of the host. It is an acute-phase protein that is involved in the activation of the classical complement pathway. MBL may play a defensive role in HCV infection.

Objectives: to investigate the relationship between MBL concentration and HCV infection in Egyptian patients suffering chronic hepatitis C.
Patients and Methods: Serum samples obtained from 35 Egyptian hepatitis C patients and 30 normal controls were assayed for MBL. MBL concentrations were correlated to disease characteristics and treatment response.
Results: Serum MBL was significantly higher in HCV patients than in controls, but no relationship was found between MBL concentration and disease progression in terms of hepatic fibrosis and inflammation.
Responders to interferon (INF)-based therapy had significantly higher serum MBL than non-responders.
Conclusions: We found no association between serum MBL concentration and progression of HCV related liver disease. Responders to INF-based therapy had significantly higher serum MBL than non-responders.
Keywords: Hepatitis C; Interferon; Mannan; Egypt.

122. Health-Related Quality of Life in Egyptian Patients after Liver Transplantation

Mahasen Mabrouk, Gamal Esmat, Ayman Yosry, Magdy El-Serafy, Wahid Doss, Naglaa Zayed, Medhat El-Zahhar, Sally Awny and Ashraf Omar

Annals of Hepatology, 11 (6): 882-890 (2012) IF: 1.811

Introduction-Aim: Health-Related Quality of Life (HRQOL) has become an important focus of patient careand clinical outcomes research with the improvement in patient and graft survival after liver transplantation (LT). the current study was designed to evaluate the post-transplant HRQOL profiles using the Liver Disease Quality of Life 1.0 (LDQOL 1.0) Questionnaire and demonstrate the possible effect of peri-transplant clinical covariates on these profiles.
Material and methods: Participants included pre-transplant group (waiting-list patients n = 50) and post-transplant group (mean 5 ± 4 years after deceased or living donor LT n = 103) who were recruited from 3 specialized centers in Egypt. We applied the LDQOL 1.0 questionnaire; a 111-item containing the Short Form-36 version 2.0 (SF-36v2) as a generic component supplemented by 75 disease-specific items. the etiology of cirrhosis, co-morbidities, model for end-stage liver disease (MELD), Child-Pugh class and post-operative complications were analyzed.
Results: All recipients had significant higher HRQOL scores than patients in waiting-list using both questionnaire components. Recipients with pre-LT MELD ≥ 15, Child-Pugh class C, history of hepatocellular carcinoma (HCC) demonstrated low HRQOL scores. Recipients without post-operative surgical complications had a statistically better HRQOL using the disease-specific, but not the SF-36v2 component. on the other hand, both components demonstrated non-significant lower scores in recipients with rejection episodes, cytomegalovirus (CMV) infection and hepatitis C recurrence had compared to those without medical complications.
Conclusion: Generally HRQOL improves dramatically after LT as assessed by LDQOL questionnaire. Moreover, combined questionnaires can provide accurate information about the possible impaired HRQOLpost-LT due to pre-transplant disease severity and post-operative complications.

Keywords: Ldqol 1.0 questionnaire; Liver transplant recipients; Ldlt-Sf-36-Egypt.

123. Hla Tissue Typing Has no Effect on the Outcome of Patients Undergoing A Living-Donor Liver Transplant: A Single-Center Experience in Egypt

Ayman Yosry, Mohamed Said, Gamal Esmat, Magdy Al-Serafy, Ashraf Omar, Wahid Doss, Dalia Omran, Yasmin Saad, Sanna Kamel, Akram Abdel-Bary, Yaser Hatata and Adel Hosny

Exp Clin Transplant, 2: 136-140: 136-140 (2012) IF: 0.813

To analyze the effect of human leukocyte antigen tissue typing on outcome of livedonor liver transplant.
Materials and Methods: Fifty recipients underwent live-donor liver transplant in the Dar Al-Fouad Hospital in Egypt and were retrospectively evaluated. Patients were classified into 2 groups: those with human leukocyte antigen +ve, and those with human leukocyte antigen -ve and donors. Hepatitis C virus-related end-stage liver disease was the main indication for transplant. Demographic data, preoperative laboratory data, results of human leukocyte antigen tissue typing, Child score, model for end-stage liver disease score, graft/recipient weight-ratio, ischemia times, surgical complications, postoperative laboratory data, liver biopsy, immunosuppression, and pulse steroids were collected. Graft and patient survivals were studied using Kaplan-Meier curves.
Results: the mean model end-stage liver disease score was 18 ± 3.61 in group 1 and 17.73 ± 3.72 in group 2, with no significant difference. Graft/recipient weight ratio, ischemia times, and postoperative complications showed P = NS. Cyclosporine and tacrolimus were used in 5/9, 8/41, and 4/9 in group 1, and 32/41 in group 2 (P = NS). Rejection and pulse steroids were reported in 3/9 and 12/41 of group 1, and 3/12 and 11/41 of group 2 (P = NS). Hepatitis C virus-recurrence was diagnosed in 5/9 of patients (55%) and 8/41 of patients (29.5%) in groups 1 and 2 (P < .05). No statistical difference was found regarding mortality; 5-year patient and graft survival was 35/50 (70% in group 1 [human leukocyte antigen +ve]), 7/9 (77.8%), and 28/41 in group 2 (68.3%) (human leukocyte antigen -ve).
Conclusions: Positive human leukocyte antigen typing before live-donor liver transplant has no effect on the incidence of postoperative complications, rejection episodes, and patient or graft survival. Recipients with positive human leukocyte antigen typing may have increased risk of hepatitis C virus-recurrence after live-donor liver transplant.

Keywords: Hla; Liver transplantation; Outcome.

124. The Initial Experience of Safety and Efficacy of Argon Plasma Coagulation (APC) in the Primary Prevention of Variceal Bleeding

I. Hamza, M. Mahmoud and S. Labib

Arab Journal of Gastroenterology, 13: 125-129 (2012)

The well-known complications of variceal bleeding together with the high mortality rate mandate effective prophylaxis. Because of the intolerance, failure of response and lack of compliance related to B blockers and because of the high incidence of variceal recurrence after endoscopic variceal ligation (EVL), other alternatives should be investigated. as APC provides coagulation at a shallow depth, it has been considered an ideal procedure to promote mucosal fibrosis for oesophageal varices. This study aims to investigate the safety and effectiveness of APC

application to the oesophagus post-variceal obliteration in an attempt to decrease variceal recurrence and bleeding, as compared to EVL.

Patients and methods: This study included 60 patients with chronic liver disease and portal hypertension referred to the Gastrointestinal Endoscopy Unit, Kasr Al-Aini Hospital, Cairo University, during the period from August 2008 till January 2010. Patients had to have large-sized varices (F3), without history of bleeding, portal hypotensive drugs or intervention. Patients were allocated into either group I that included 30 patients for whom EVL was performed and sequentially followed by one session of APC or group II that included 30 patients for whom EVL alone was done. Patients underwent surveillance endoscopy at 3 and 6 months to evaluate variceal recurrence (F1or more).

Results: Both groups were comparable in terms of the demographic features, hepatic functional reserve and endoscopic findings. Post-APC, fever was reported in 6.7%, dysphagia in 3.3%, procedure-related bleeding in 0% and stricture in 3.3%. at 3 and 6 months follow-up, both groups were comparable in terms of variceal recurrence and none of the patients in both groups developed variceal bleeding.

Conclusion: Although, APC application to the oesophageal mucosa is a safe technique, its additive benefit in terms of variceal recurrence and re-bleeding is comparable to EVL alone. This is encountered when only a single session of APC is applied. A more beneficial effect of multiple sessions of APC awaits further studies.

Keywords: Argon Plasma Coagulation; Oesophageal Varices; Band Ligation.

125. Potent Inhibitory Effects of P7 Inhibitors on Genotype 4 Hcv-Infected Peripheral Blood Mononuclear Cells

Maged A. Saleh, Radwa Y. Mekky, Nada El-Ekiaby, Nabila Hamdi, Rasha Ahmed, Abdel Rahman Zekri, Gamal Esmat and Ahmed I. Abdelaziz

Recent Patents on Biomarkers, 2: 227-233 (2012)

Several patents were published for HCV p7 protein including a synthetic p7 model for drug design and screening of experimental compounds. Additionally, patents were published for identification and use of compounds as p7 inhibitors.

HCV p7 protein is a viral ion channel (viroporin) that was found to be crucial for viral production through facilitating assembly and release. Accordingly, targeting the protein is expected to inhibit these stages in the HCV lifecycle. p7 inhibitors displayed effectiveness against recombinant replicons of different HCV genotypes with genotype-dependant responses, but they were never tested on genotype 4 (GT-4). Our study focused on examining the effects of four p7 inhibitors; amantadine, rimantadine, N-nonyl-deoxynojirimycin (NN-DNJ) and hexamethylene amiloride (HMA) on HCV GT-4 for the first time which involves the majority of cases in Egypt and the Middle East-North Africa (MENA) region. HCV viral load was assessed after stimulation by p7 inhibitors for HCV-positive Peripheral Blood Mononuclear Cells (PBMCs) which are known to be extra-hepatic reservoirs for the virus. the compounds showed strong reduction of viral load without affecting cell viability in congruency with previous experimental work that alternatively used other HCV genotypes and cell lines.

Keywords: Amantadine; Genotype 4; Hepatitis C virus (Hcv); Hexamethylene amiloride (Hma); N-Nonyl-Deoxynojirimycin.

126. Repressed Induction of Interferon-Related Micrornas Mir-146a and miR-155 in Peripheral Blood Mononuclear Cells Infected with HCV Genotype 4

Nada El-Ekiaby, Nabila Hamdi, Mohamed Negm, Rasha Ahmed, Abdel Rahman Zekri, Gamal Esmat and Ahmed Ihab Abdelaziz

Febs Open Bio 2, 2: 179-186 (2012)

MicroRNAs regulate the expression of many genes and subsequently control various cellular processes, such as the immune response to viral infections mediated by type I interferon (IFN). in this study, the expression pattern of two interferon-related microRNAs, miR-146a and miR-155, was examined in healthy and HCV-genotype-4-infected peripheral blood mononuclear cells (PBMCs) using qRT-PCR. in contrast to other viral infections, the expression pattern was similar in both healthy and infected PBMCs.

This could be attributed to attenuation of IFN pathway by HCV, which was assessed by investigating the expression of MxA, an interferon-stimulated gene, that showed lower expression in HCV-infected PBMCs. to determine the site of interference of HCV in the IFN pathway, expression of both microRNAs was examined following stimulation of PBMCs with IFN-?2a, an activator of the JAK/STAT pathway as well as with imiquimod, a toll-like receptor-7 (TLR-7) agonist that promotes interferon release. IFN stimulation induced the expression of miR-146a and miR-155 in HCV-infected and healthy PBMCs.

Stimulation with imiquimod led to a down-regulation of both microRNAs in infected PBMCs, while it increased their expression in healthy PBMCs, indicating that HCV might interfere with miR-146a and miR-155 expression at sitesupstream of interferon release, specifically in the TLR-7 pathway. the pattern of expression of both miR-146a and miR-155 was very similar with a strong positive correlation, but showed no correlation to the patients' clinical or histopathological parameters or response to treatment.

in conclusion, HCV infection might repress the induction of miR-146a and miR-155 by interfering with TLR-7 signaling.

Keywords: Hcv; Pbmcs; Mir-146A ; Mir-155; Interferon; Tlr-7.

127. Treatment of Chronic HCV Genotype 4 Infection

G. Esmat, M. El Raziky, M. El-Kassas, M. Hassany and M. E. Gamil

Current Hepatitis Reports, (2012)

Hepatitis C virus genotype 4 (HCV4) is the most common type of hepatitis C virus (HCV) in the Middle East and Africa, in particular Egypt. Treatment with pegylated interferon and Ribavirin is still the standard regimen of care with overall response ranging between 50 and 60 %. New types of interferon (Y-shaped, Reiferon Retard,…), new DAAD (protease inhibitors, polymerase inhibitors, NS5A inhibitors….), and many off label drugs (Nitazoxanide,Vit.D…) may improve the treatment outcome of patients with HCV-4.

Keywords: Hcv4; Pegylated interferon; New interferon Molecule; Daat; Middle east.

Dept. of Forensic & Toxicology

128. Abusing Female Children by Circumcision is Continued in Egypt

Abeer Ahmed Zayed and Abla Abdelrahman Ali

Journal of Forensic and Legal Medicine, 19 (2012): 196-200 (2012) IF: 1.098

Female circumcision is a frank picture of female child abuse that is practised widely in many countries especially in Africa. This procedure is considered a fundamental violation of human rights. the procedure is expected to be declining in Egypt in response to the recent medicolegal litigation in 2007. the aim of this study is to record the prevalence of female circumcision in 2010, in the region of Cairo and Giza, seeking to show if there is difference in the practice after the change in the law and banning of the procedure. A formatted questionnaire for 244 female volunteers was conducted. Statistical analysis revealed that 63.9% of the sample had been victimised by circumcision. the mean age of circumcision was 10.846 1.98 years. Circumcision took place at victim's home in 56.5%, private clinics in 38.5% or at hospitals in 5%. the procedure was performed by medical personnel in the majority of cases. the motivation behind the practice was primarily traditional beliefs (64.1%) followed by religious considerations (35.9%). Experienced complications were emotional trauma in 94.9%, haemorrhage in 33.3% and dysuria in 7.7%. Sexual problems were exclusively reported by the victimised subjects in 72.7% of sexually experienced subjects.

Keywords: Female circumcision; Egypt; Child abuse; Human rights.

Dept. of Histology

129. Tissue Regeneration and Stem Cell Distribution in Adriamycin Induced Glomerulopathy

Maha Baligh Zickri, Marwa Mohamed Abdel Fattah and Hala Gabr Metwally

International Journal of Stem Cells, 5 (2): 115-124 (2012)

Glomerulosclerosis develops secondary to various kidney diseases. It was postulated that adriamycin (ADR) induce chronic glomerulopathy. Treatment combinations for one year did not significantly modify renal function in resistant focal segmental glomerulosclerosis (FSGS). Recurrence of FSGS after renal transplantation impacts long-term graft survival and limits access to transplantation. the present study aimed at investigating the relation between the possible therapeutic effect of human mesenchymal stem cells (HMSCs), isolated from cord blood on glomerular damage and their distribution by using ADR induced nephrotoxicity as a model in albino rat.

Methods and Results: Thirty three male albino rats were divided into control group, ADR group where rats were given single intraperitoneal (IP) injection of 5 mg/kg adriamycin. the rats were sacrificed 10, 20 and 30 days following confirmation of glomerular injury. in stem cell therapy group, rats were injected with HMSCs following confirmation of renal injury and sacrificed 10, 20 and 30 days after HMSCs therapy. Kidney sections were exposed to histological, histochemical, immunohistochemical, morphometric and serological studies. in response to SC therapy multiple Malpighian corpuscles (MC) appeared with patent Bowman's space (Bs) 10 and 20 days following therapy. One month following therapy no remarkable shrunken glomeruli were evident. Glomerular area and serum creatinine were significantly different in ADR group in comparison to control and SC therapy groups.

Conclusions: ADR induced glomerulosclerosis regressed in response to cord blood HMSC therapy. A reciprocal relation was recorded between the extent of renal regeneration and the distribution of undifferentiated mesenchymal stem cells.

Keywords: Mesenchymal stem cells; Cord blood; Glomerulosclerosis; Adriamycin.

130. Effect of Stem Cell Therapy on Adriamycin Induced Tubulointerstitial Injury

Maha Baligh Zickri, Somaya Zaghloul, Mira Farouk and Marwa Mohamed Abdel Fattah

International Journal of Stem Cells, 5 (2): 130-139 (2012)

It was postulated that adriamycin (ADR) induce renal tubulointerstitial injury. Clinicians are faced with a challenge in producing response in renal patients and slowing or halting the evolution towards kidney failure. the present study aimed at investigating the relation between the possible therapeutic effect of human mesenchymal stem cells (HMSCs), isolated from cord blood on tubular renal damage and their distribution by using ADR induced nephrotoxicity as a model in albino rat.

Methods and Results: Thirty three male albino rats were divided into control group, ADR group where rats were given single intraperitoneal (IP) injection of 5 mg/kg adriamycin. the rats were sacrificed 10, 20 and 30 days following confirmation of tubular injury. in stem cell therapy group, rats were injected with HMSCs following confirmation of renal injury and sacrificed 10, 20 and 30 days after HMSCs therapy. Kidney sections were exposed to histological, histochemical, immunohistochemical, morphometric and serological studies. in response to SC therapy, vacuolated cytoplasm, dark nuclei, detached epithelial lining and desquamated nuclei were noticed in few collecting tubules (CT). 10, 20 and 30 days following therapy. the mean count of CT showing desquamated nuclei and mean value of serum creatinine revealed significant difference in ADR group. the mean area% of Prussian blue+ve cells and that of CD105+ve cells measured in subgroup S1 denoted a significant increase compared to subgroups S2 and S3.

Conclusions: ADR induced tubulointerstitial damage that regressed in response to cord blood HMSC therapy.

Keywords: Mesenchymal stem cells; Cord blood; Tubular damage; Adriamycin.

131. Effect of Stem Cell Therapy on Induced Diabetic Keratopathy in Albino Rat

Maha Baligh Zickri, Nagwa Abdel Wahab Ahmad, Zeinab Mohamad El Maadawi, Yasmin Kamal Mohamady and Hala Gabr Metwally

International Journal of Stem Cells, 5 (1): 0-0 (2012)

Type 2 diabetes mellitus (DM) is a prevalent disorder. Diabetic keratopathy is a well-known ocular complication secondary to type 2 DM. Topical insulin application did not affect apoptosis and necrosis levels in corneal epithelium. Autologous cell transplantation is not a viable option for diabetic patients with bilateral limbal stem cell deficiency. the present study aimed at

assessing the possible effect of hemopoeitic stem cell (HSC) therapy on induced diabetic keratopathy in albino rat.
Methods and Results: Fifteen male albino rats were divided into control group of 2 rats, diabetic group of 8 rats receiving single intraperitoneal (IP) injection of 50 mg/kg streptozotocin (STZ). 3 animals were sacrificed 6 weeks following confirmation of diabetes to confirm keratopathy and 5 rats were sacrificed 4 weeks following confirmation of keratopathy. SC therapy group included 5 rats injected with HSCs 6 weeks following confirmation of diabetes and sacrificed 4 weeks following SC therapy. Cord blood collection, stem cells isolation and labeling were performed. Eye specimens were subjected to histological, histochemical, immunohistochemical, morphometric and statistical studies. in diabetic group, the central cornea showed multiple cells with vacuolated cytoplasm and dark nuclei, focal epithelial discontinuity, reduced corneal thickness and less number of layers of corneal and conjunctival epithelia. in stem cell therapy group, few cells with vacuolated cytoplasm and dark nuclei were found in the corneal and conjunctival epithelia with more number of epithelial layers.
Conclusions: A definite ameliorating effect of HSC therapy was detected on diabetic keratopathy. the therapeutic cells were effective in limiting corneal epithelial changes.

Keywords: Hemopoeitic stem cells; Diabetes; Cord blood; Keratopathy.

Dept. of Internal Medicine

132. Noninvasive Assessment of Hepatic Fibrosis in Egyptian Patients with Chronic Hepatitis C Virus Infection

Shawky Abdelhamid Fouad, Serag Esmat, Dalia Omran, Laila Rashid and Mohamed H Kobaisi

World Journal of Gastroenterology, 18 (23): 2988-2994 (2012) IF: 2.471

Aim: to evaluate the accuracy of specific biochemical markers for the assessment of hepatic fibrosis in patients with chronic hepatitis C virus (HCV) infection.
Methods: One hundred and fifty-four patients with chronic HCV infection were included in this study; 124 patients were non-cirrhotic, and 30 were cirrhotic. the following measurements were obtained in all patients: serum alanine aminotransferase (ALT), aspartate aminotransferase (AST), albumin, total bilirubin, prothrombin time and concentration, complete blood count, hepatitis B surface antigen (HBsAg), HCVAb, HCV-RNA by quantitative polymerase chain reaction, abdominal ultrasound and ultrasonic-guided liver biopsy. the following ratios, scores and indices were calculated and compared with the results of the histopathological examination: AST/ALT ratio (AAR), age platelet index (API), AST to platelet ratio index (APRI), cirrhosis discriminating score (CDS), Pohl score, G?teborg University Cirrhosis Index (GUCI).
Results: AAR, APRI, API and GUCI demonstrated good diagnostic accuracy of liver cirrhosis (80.5%, 79.2%, 76.6% and 80.5%, respectively); P values were: < 0.01, < 0.05, < 0.001 and < 0.001, respectively. Among the studied parameters, AAR and GUCI gave the highest diagnostic accuracy (80.5%) with cutoff values of 1.2 and 1.5, respectively. APRI, API and GUCI were significantly correlated with the stage of fibrosis ($P < 0.001$) and the grade of activity ($P < 0.001$, < 0.001 and < 0.005, respectively), while CDS only correlated significantly with the stage of fibrosis ($P < 0.001$) and not with the degree of activity ($P > 0.05$). in addition, we found significant correlations for the AAR, APRI, API, GUCI and Pohl score between the non-cirrhotic (F0, F1, F2, F3) and cirrhotic (F4) groups (P values: < 0.001, < 0.05, < 0.001, < 0.001 and < 0.005, respectively; CDS did not demonstrate significant correlation ($P > 0.05$).

Keywords: Age platelet index; Aspartate aminotransferase Platelet ratio index.

133. Can We Consider the Right Hepatic Lobe Size/Albumin Ratio A Noninvasive Predictor of Oesophageal Varices in Hepatitis C Virus-Related Liver Cirrhotic Egyptian Patients

Serag Esmat, Dalia Omarn and Laila Rashid

Eur J Intern Med, 23: 267-272 (2012) IF: 2

the current guidelines recommend the screening of all cirrhotic patients by endoscopy, but repeated endoscopic examinations are unpleasant for patients and have a high cost impact and burden on endoscopic units. the aim of this study is to evaluate the optimal liver lobe size/albumin ratio and to compare this ratio with spleen size, platelet count and platelet count/spleen diameter ratio as potential noninvasive predictors of oesophageal varices in hepatitis C virus (HCV)-related liver cirrhosis in Egyptian patients.
Methods: This prospective study included one hundred patients with HCV-related liver cirrhosis. All studied subjects underwent a detailed clinical examination, biochemical workup, upper gastrointestinal endoscopy and abdominal ultrasound. the platelet count/spleen diameter ratio and the right liver lobe/albumin concentration ratio for all patients were calculated.
Results: the 4 predictors demonstrated a high statistically significant correlation with the presence and grade of oesophageal varices (P valuesb0.001). the platelet count/spleen diameter ratio had the highest accuracy, followed by the right liver lobe/albumin concentration ratio, spleen size and then platelet count.
Conclusion: the use of the studied noninvasive predictors, especially the platelet count/spleen diameter ratio and the right liver lobe/albumin concentration ratio, can help physicians by restricting the use of endoscopic screening only to patients presenting a high probability of oesophageal varices. This is especially useful in clinical settings where resources are limited and endoscopic facilities are not present in all areas. Such is the case in Egypt, where there is a large number of patients who require oesophageal screening for oesophageal varices.
Keywords: Noninvasive diagnosis of oesophageal varices; Right liver lobe size/albumin ratio; Platelet count/spleen diameter ratio; Oesophageal varices; Hcv related liver cirrhosis.

134. Outcome and Relapse Risks of Thrombotic Thrombocytopaenic Purpura: an Egyptian Experience

Noha M. El-Husseiny, Hady Goubran, Hala M Fahmy, Nehad M. Tawfik, Heba Moustafa, Sherif N. Amin and Magdy El- kiaby

Post Graduate Medical Journal, 88: 433-436 (2012) IF: 1.939

Background: Thrombotic thrombocytopaenic purpura (TTP) is a rare life-threatening disease. Plasma exchange has significantly decreased the mortality from this disease, which still tends to recur in a substantial proportion of patients. This study describes

the clinical spectrum and response to treatment and explores the risks of relapse in a cohort of patients.
Methods: Patients treated for TTP at the Clinical Haematology Unit, Cairo University, Egypt, between 2000 and 2008 were identified. Complete demographic, clinical history and full clinical examination, laboratory, treatment modalities and duration, and outcome data were collected and analysed. the follow-up duration was 24 months.
Results: 30 patients; 13 men (43%) and 17 women (57%) with a median age of 42 years were treated for 46 episodes of TTP. the median duration of disease onset to diagnosis for the first episode was 7 days. Twenty-three patients (76.66%) were diagnosed as idiopathic primary and seven patients (23.33%) were secondary TTP. Four patients died during the first 24 h. of the 26 patients, 22 (85.6%) achieved remission with an average of 7.55 plasma exchange sessions, Another nine patients had 25 relapses (mean 2.7). Splenectomy was performed in three patients (11.5%). the 24-month overall survival was 80%. the initial low platelet count and high LDH were the only two statistically significant relapse predictors.
Conclusions: the current results conform to the reported literature on the outcome of TTP. the very early mortality due to late referral highlights the need of education about the disease among primary healthcare providers.

Keywords: Thrombotic thrombocytopenic purpura.

135. Endogenous Soluble Receptor of Advanced Glycation End- Products (esRAGE) is Negatively Associated with Vascualr Calcification in Non-Diabetic Hemodialysis Patients

Mohamed M. NasrAllah, Amal R. El- Shehaby, Noha A. Osman, Mona M. Salem, Amr Nassef and Usama A. A. Sharaf El Din

Int Urol Nephrol, 44 (4): 1193-1199 (2012) IF: 1.471

Advanced glycation end products (AGE) accumulate in CKD and may predispose to cardiovascular diseases by inducing inflammatory and oxidant stress in the vascualr endothelium. soluble forms of the receptor for AGE (RAGE) may be protective against these effects by binding AGE in the soluble phase. accumulating evidence suggests a protective role of soluble RAGE against vascular calcification. this study investigates the association between endogenous soluble receptor RAGE and vascualr calcification in hemodialysis patients.
Methods: we studied 65 non- diabetic hemodialysis patients on 3x4 h dialysis schedule and 19 normal controls. serum levels of esRAGE, hsCRP, parathoromone, lipids, calcium and phosphorous were measured. Aortic calcification index ACI was measured using non- contrast CT of the abdominal aorta.
Results: aortic calcification was detected in 64 out of 65 hemodialysis patients. levels of esRAGE were lower among hemodialysis patients (278pg/ml,SD101.1) than in controls (443pg/ml, SD109) Pvalue= 0.001. ACI correlated negatively in stepwise multivariate analysis with esRAGE P= 0.002 amd positively with hsCRP P= 0.0001
Conclusion: levels of esRAGE were low among hemodialysis patients and correlated negatively with ACI

Keywords: Vascualr Calcification; Rage; Inflammation; Ckd-Mbd; Hscrp; Advanced Glycation End Products.

136. Sleep-Related Breathing Disorders in Cerebrovascular Stroke and Transient Ischemic Attacks: A Comparative Study

ElKholy, Saly H.Amer, Hanan A. Nada, Mona M. Nada, Mona A. F.and Labib Amira

J Clin Neurophysiol, 29 92): 194-198 (2012) IF: 1.451

Sleep-related breathing disorders are said to be common in patients with established cerebrovascular accidents. the aim of this study was to assess the frequency and characteristics of sleep-related breathing disorders in ischemic stroke and transient ischemic attacks. All patients were subjected to neurologic assessment, Berlin questionnaire (Arabic version), brain computed tomographic scan, and polysomnography along 6 to 8 hours overnight with special emphasis to apnea/hypopnea indices. All assessments were done for 30 patients who had stroke and transient ischemic attacks as well as 20 age- and sex-matched controls. Overall, 13.3% of patients had mild sleep apnea (apnea/hypopnea index, .5), 13.3% had moderate sleep apnea (apnea/hypopnea index, .15), and 34% had severe sleep apnea (apnea/hypopnea index, .30). the sensitivity and specificity of Berlin ques- tionnaire for obstructive sleep apnea diagnosis were 55% and 100%, respec- tively, for mild sleep apnea, 56.3% and 85.7% for moderate sleep apnea, 66.7% and 83.3% for severe condition. Berlin questionnaire is a moderate sensitive but highly specific screening test for sleep apnea in cerebrovascular diseases. Those who scored high risk should consider polysomnography to specify the type and severity of apnea.

Keywords: Stroke; Tias; Berlin questionnaire; Polysomnogram; Apnea hypopnea index.

137. Role of Ultrasound Elastography in Prediction of Malignancy in Thyroid Nodules

Mona Mansor, Hussein Okasha, Serag Esmat, Ahmed Murad Hashem, Khaled A. Attia and Hossam El-din Hussein

Endocr Res, 37 (2): 67-77 (2012) IF: 0.969

Ultrasonography is considered useful to distinguish between solid and cystic thyroid nodules and to stratify a nodule's risk of cancer as low, medium, or high. Ultrasound (US) elastography has been applied to study the hardness/elasticity of nodules to differentiate malignant from benign lesions. Elastography possibly can solve the dilemma in reaching an accurate diagnosis for the cytologically known as indeterminate nodules.
Aim: to evaluate the sensitivity and specificity of US elastography in the diagnosis of thyroid cancer. Patients and methods. This prospective study included 40 patients. the total number of nodules was 46, they were all euthyroid. Laboratory investigations were done including FT3, FT4, and TSH to exclude hot nodules. Neck US, US elastography, and fine-needle aspiration were done to all patients, and US elastography scoring system from 1 to 4 was used.
Results: Four out of the 46 studied nodules were malignant. the ROC curve for elastography score (E-score) showed high sensitivity, specificity for the diagnosis of malignant thyroid nodules with a cut-off value of E-score 4 and high significance ($p < 0.001$), the area under curve was 0.92. the sensitivity was 75.0% and specificity was 100%. for E-score more than 2, the sensitivity was 100% and specificity was 85.37%.
Conclusion: US elastography can be used to increase both the sensitivity and the specificity of US for the detection of malignant

thyroid nodules, and so it seems to have great potential as a new tool for the diagnosis of thyroid cancer.

Keywords: Thyroid nodules; Thyroid cancer; Elastography.

138. A Comparative Study between Virtual Colonoscopy (Ct Colonoscopy) and Conventional Colonoscopy in Different Presentations of Suspected Colonic Disorders

Wael M. Aref; Ahmed El-Mazny and Farid G. Amin

Life Science Journal, 9 (3): 561-567 (2012) IF: 0.073

Virtual colonoscopy is a promising new modality for investigating suspected colonic disorders, it is relatively safe, can be done without sedation and in less time compared to conventional colonoscopy.

Aim of this work: to evaluate the application of virtual colonoscopy in different indications of conventional colonoscopy and compare between both procedures as regards sensitivity and specificity of both methods, putting the hypothesis that virtual colonoscopy can replace the conventional colonoscopy.

Subjects and Methods: a group of eighty two patients having different indications for colonoscopy were included; all patients underwent full medical history, examination and any needed investigations. Patients were scheduled to undergo both conventional and virtual colonoscopy on the same week, both endoscopist and radiologist were unaware of the other report.

Results: Both conventional and virtual colonoscopy detected colonic masses in 18 patients, colonic diverticulae in 5 patients and colonic strictures in 2 patients with no missed or false positive results with 100% sensitivity and specificity; and 100% positive and negative predictive values. Meaning that virtual colonoscopy was accurate in detection of masses, diverticulae and strictures. However detection of polyps by virtual colonoscopy was 88% sensitive and 77% specific with 3 missed polyps (small polyps) and 13 false positive polyps detected by virtual colonoscopy. Virtual Colonoscopy Could not detect any of the following.

lesions: angiodysplasia (2 patients), ulcerative colitis (without pseudo polyps) (3 patients), flat ulcers and non-specific colitis (11 patients), with a Sensitivity 0%.

Conclusion: Virtual Colonoscopy can be used in evaluation of patients presenting with constipation, weight loss or abdominal pain in whom colonoscopic examination was indicated (in these patients colonic lesions were masses, strictures and diverticulae, so virtual colonoscopy is sensitive in detecting these lesions).

But the use of virtual colonoscopy is limited in patients presenting with anemia and positive occult blood in stools, bleeding per-rectum and chronic diarrhea (in these patients the colonic lesions were angiodysplasia, flat ulcers and non specific colitis, so virtual colonoscopy is not sensitive in detecting these lesions). Also, virtual colonoscopy is a good diagnostic tool for screening for colorectal carcinoma, however using the recent technology in virtual colonoscopy as new faster CT multi-slice machines with the least possible slice thickness in order not to miss a small lesion is recommended.

Keywords: Virtual colonoscopy; Conventional colonoscopy; Lower git symptoms; Colorectal carcinoma.

139. Insulin Versus Oral Hypoglycemic Drug Combination in Controlling Hyperglycemia in Hcv Patients During Interferon Therapy

M.A. Gawad Shaheen, Sahar M. Abdel-Wahab, Emad A. Hassan and Adel M.R.A. AbdelAziz

Life Science Journal, 4 (3): 260-266 (2012) IF: 0.073

Hepatitis–C virus is common in many areas of the world particularly in Egypt and interferon therapy helps around 40 % of the patients to eradicate the virus and good glycemic control is needed to get better results of interferon therapy This work aimed to study the efficacy of insulin therapy compared to oral hypoglycemic drugs in HCV patients receiving interferon therapy. Ninety six patients were included in the study divided into three groups (A) TREATED WITH INSULIN (B) treated with oral hypoglycemic drugs and (C) treated with two oral hypoglycemic drugs plus a bed time basal insulin. HbA1c,AST, ALT and the weight of the patients were measured at the start before intervention and 3 months after intervention.Results this study showed that insulin therapy – group-A- is more effective than oral hypoglycemic drug combination group-B and also more effective than group-C – treated with oral drugs and basal insulin – in reducing HbA1c ($p = 0.001$) and in improving weight and reducing AST AND ALT ($P < 0.05$). Also oral drugs plus a basal insulin at bed time - group – C was more effective than oral drug combination alone (group-B) in reducing HbA1c and the difference was statistically significant $p < 0.05$ and improving weight $p < 0.05$ and improving AST AND ALT but the results are statistically non significant ($p=0.09$ and 0.07). Conclusion insulin therapy is more effective than oral hypoglycemic drug combination in controlling blood glucose, improving liver enzymes and prevention of weight loss with some weight gain.

Keywords: T2dm; Hba1c; Hcv; Interferon; Insulin; Resistant; Oral hypoglycemic drugs.

140. Prevalence of Vitamin - D Deficiency Among Premenopausal Women Working in Fayoum University

Mohamed Mashahit, Haidy Michel, Emad El Moatasem, Mohamed El Basel and Nagwa k. Roshdy

Life Science Journal, 9 (4): 3332-3337 (2012) IF: 0.073

Vitamin - D deficiency is a worldwide problem and the prevalence of deficiency reaches more than 50% of the population in most of the studies and causes of deficiency are either inadequate intake of food containing vitamin - D or inadequate exposure to sun light which plays an important role of biosynthesis of vitamin- D from the skin, vitamin -D deficiency is linked to many diseases like cancer, diabetes, bone disorders, hypertension, obesity, dyslipidemia and many other disorders and correction of 25 -vitamin - D deficiency which is very simple and available and not expensive improves those disorders significantly. This work aimed to screening for vitamin 25- D deficiency among premenopausal women working in Fayoum University.

Subjects and methods: two hundred healthy premenopausal non pregnant non lactating females aged 40-50 years old working at Fayoum University, subjected to thorough medical history and clinical examination, stressing on color of the skin BMI and style of clothing and all patients are screened for 25- vitamin D using ELISA.

Results: Our results showed that 45 females of 200 were sufficient (22.5%), 91 females were insufficient (45.5%), 64 females were deficient (32%). Vitamin D deficient females subdivided into deficient (82.8%) and severely deficient (17.2%). there was significant difference between the mean of vitamin -D in the different BMI, in normal body weight subjects the mean of vitamin D level was 77.9 ± 21.7 in overweight was 51.4 ± 15.5 in obese (40 ± 22.4) and the difference is highly statistically significant ($p < 0.001$). the mean vitamin -D level for western wearing clothes was 66.8 ± 16.4, for ladies wearing Higab was 62 ± 23.2), and for ladies wearing Niqab 28.3 ± 16.3 and the difference is highly statistically significant ($p < 0.001$). the mean of vitamin D level in dark skinned subjects was 57.2 ± 21.2 while in white skinned subjects was 96.2 ± 33.8 and the difference is highly statistically significant ($p < 0.001$).

Conclusion: More than 75 % of the premenopausal women working in Fayoum University had either vitamin –D deficiency or insufficiency. obesity, darker skin and insufficient sun exposure are the main factors leading to or associated with 25 – vitamin – D deficiency

Keywords: Vitamin D; Deficiency; Skin color; Bmi; Diet; Sun exposure.

141. Left Ventricular Hypertrophy and Plasma Nitric Oxide in Hemodialysis Patients

Ragai, M.F.R. Fouda,Yasser M. Abdlehamid and Hamdy.A. Ahmed

Life Science, 9 (4): 3280-3284 (2012) IF: 0.073

Development of Left ventricular hypertrophy (LVH) in hemodialysis (HD) patients is reported in different clinical studies. the mechanisms responsible for LVH in these patients are complex and multifactorial. Experimental studies have shown that Nitric oxide (NO) is a possible anti-hypertrophic molecule. the aim of this study was to assess prevalence of LVH and its pattern in these patients and plasma NO in these patients.

Methods: Twenty six HD patients participated in the study. Measurement of plasma NO, and trans-thoracic echocardiographic assessment of left ventricular mass index (LVMI) and relative wall thickness (RWT) were done. LVH was diagnosed in men with LVMI>115g/m2 and women with LVMI>95g/m2. LVH was concentric when RWT>0.42 and eccentric when RWT<0.42.

Results: Twenty one out of twenty six (80.8%) HD patients suffered of LVH with a mean LVMI of 191+/-78.14g/m2. 73% of them suffered of concentric LVH, while only 7.8% of them suffered of eccentric LVH and only one patient had normal left ventricle geometry. Mean plasma NO of HD patients was significantly less than mean plasma level of healthy control subjects (6.46±1.0 microgram/dl vs 11.18±1.22 microgram/dl) and LVMI showed a significant negative correlation to plasma NO.

Conclusion: Nearly 80% of our studied HD patients suffer of LVH , most of them suffer of concentric LVH. Mean plasma NO was significantly lower in HD patients compared to healthy control subjects. Plasma NO level was significantly negatively correlated with LVMI. Possible role of NO in the development of LVH in HD patients requires further study.

Keywords: Left ventricle; Hypertrophy; Nitric oxide; Hemodialysis.

142. Study of Cgnoitive Functions and Cerebral Blood Flow in Elderly

Afaf A. Hemeda, Dalia R. Abdel-Rahman, Mohamed Naguib Abdalla, Ahmed A. El-Naggar and Dina M. Riad

Science Life Journal, 9 (4): 1704-1707 (2012) IF: 0.073

Little information is available about cognitive functions and changes in cerebral blood flow in elderly people with or without cognitive dysfunction, despite the great influence of this problem on patient, family and society. Our study aimed at evaluating the cerebral blood flow (CBF) in elderly patient with cognitive dysfunction, either primary (Alzheimer Dementia), or secondary (vascular Dementia).

Methods: assessment of the cognitive function and CBF of a group of 20 patients aged > 65 years old, 10 patients with vascular dementia while the other 10 patients with Alzheimer dementia and the results compared to a group of healthy volunteers. Results: all patients had significantly decreased Mini Mental State Examination (MMSE), Set test scores compared to that of healthy volunteers while there is significant difference regarding the Geriatric Depression Scale (GDS). Patients with vascular dementia had significantly diminished CBF compared to the healthy volunteers which doesn't go for those with Alzheimer dementia. There is significant positive relationship between MMSE scores and CBF in patients with vascular dementia ($r=0.77$, p-value=0.009). Patients with vascular dementia had significantly high percent of hypertension and diabetes than do Alzheimer group.

Conclusion: Brain ischemia was suggested to be the main factor responsible for decline of cognitive functions. the role of cerebral ischemia in Alzheimer dementia was insignificant. Cardiovascular risk factors are more related to vascular dementia.

Keywords: Mmse; Cbf; Set Test; Vascular dementia; Alzheimer dementia.

143. Plasma Concentration of Platelet Factor 4 as an Evidence of Platelet Activation in Parasitic Infections

Aisha A. El-Awady, Mayssa M. Zaki, Manal Kamal, Ahmed Nabil, El-Sayed Abdallah and Walid El-Nabawy.

Research Journal of Parasitology, 7 (1) : 25-31 (2012)

Platelets number in the circulation largely exceeds that needed for haemostasls. There is increasing evidences that platelets have an immunological role against parasites. Assessment of platelet factor 4 concentrations in patients with parasitic infections can be used as an indicator for platelet activation. This study aims to evaluate the in vivo platelet activation in parasitic infections through measunng the plasma level of platelet factor 4 in a protozoal and a helminthic infection both before and after treatment. Thus 30 patients, 22 diagnosed to have giardiasis and 8 diagnosed to have hydated disease, were subjected to serum samples collection before (Agl and Ahl) and after treatment (Ag2 and Ah2), respectlvely. the study also included 20 healthy adult as a control group. Both platelet counts and plasma levels of PF4 were measured. Platelet counts in both giardiasis and hydatid patients were significantly elevated after treatment compared to their counts before treatment. Plasma level of PF4 was reduced with a statistically significant difference in both diseases after treatment. Also there was a statistically significant difference between the mean values of PF4 of the control group (C-PF4) and in the tested groups of both diseases before and after treatment (p

< O.5). Thus parasitic infections lead to platelets activation with increase in platelet count although within normal range for platelets. Plasma level of platelet factor 4 is significantly increased in both infections and decreased after treatment, thus can be used as an indicator for parasitic infection and for prediction of success of recovery after treatment.

Keywords: Platelet factor 4, Hydatid disease, Giardia, Parasitic infections.

144. Relationship between Vitamin D and II-23, II-17 and Macrophage Chemoattractant Protein-1 as Markers of Fibrosis in Hepatitis C Virus Egyptians

Noha M El Husseiny, Hala M Fahmy, Waleed A Mohamed and Hisham H Amin

World Journal of Hepatology, 4 (8): 242-247 (2012)

Aim: to assess vitamin D in hepatitis C patients and its relationship to interleukin (IL)-23, IL-17, and macrophage chemoattractant protein-1 (MCP-1).

Methods: the study was conducted on 50 Egyptian hepatitis C virus (HCV) genotype number IV-infected patients and 25 age- and gender-matched healthy subjects. Venous blood samples were obtained.

Samples were allowed to clot and sera were separated by centrifugation and stored at -20. A 25 hydroxy vitamin D assay was carried out using solid phase RIA. A 1,25dihydroxy vitamin D assay was carried out using a commercial kit purchased from Incstar Corporation. IL-17 and -23 and MCP-1 were assayed by an enzyme immunoassay.

Quantitative and qualitative polymerase chain reaction for HCV virus were done by TaqMan technology. Only HCV genotype IV-infected subjects were included in the study. the mean ± SD were determined,a t -test for comparison of means of different parameters was used.

Correlation analysis was done using Pearson's correlation. Differences among different groupsHZ were determined using the Kruskal-Wallis test.

Results: the mean vitamin D level in HCV patients (group I) was 15 ± 5.2 ng/mL while in control (group II) was 39.7 ± 10.8. for active vitamin D in group I as 16.6 ± 4.8 ng/mL while in group II was 41.9 ± 7.9. IL-23 was 154 ± 97.8 in group I and 6.7 ± 2.17 in group II. IL-17 was 70.7 ± 72.5 in cases and 1.2 ± 0.4 in control. MCP-1 was 1582 ± 794.4 in group I and 216.1 ± 5.38 in group II. Vitamin D deficiency affected 72% of HCV-infected patients and 0% of the control group.

Vitamin D insufficiency existed in 28% of HCV-infected patients and 12% of the control group. One hundred percent of the cirrhotic patients and 40% of non cirrhotic HCV-infected patients had vitamin D deficiency. IL-23, IL-17, and MCP-1 were markedly increased in HCV-infected patients in comparison to controls.A significant negative correlation between vitamin D and IL-17 and -23 and MCP-1 was detected. HCV-infected males and females showed no differences with respect to viral load, vitamin D levels, IL-17, IL-23 and MCP-1. the viral load was negatively correlated with vitamin D and active vitamin D (P = 0.0001 and P = 0.001, respectively), while positively correlated with IL-23, IL-17, and MCP-1.

We classified the patients according to sonar findings into four groups. Group Ia with bright hepatomegaly and included 14 patients. Group Ib with perihepatic fibrosis and included 11 patients. Group Ic with liver cirrhosis and included 11 patients. Group Id with hepatocellular carcinoma (HCC) and included 14 patients. Vitamin D and active vitamin D were shown to be lower in cirrhotic patients and much lower in patients with HCC, and this difference was highly significant (P =0.0001). IL-17 and -23 and MCP-1 were higher in advanced liver disease) and the differences were highly significant (P = 0.0001).

Conclusion: Whether the deficiency of vitamin D is related to HCV-induced chronic liver disease or predisposing factor for higher viral load is a matter of debate.

Keywords: Vitamin D; Macrophage chemoattractant Protin-1; Liver cirrhosis; Interleukin-23; Interleukin-17; Liver cirrhosis.

Dept. of Medical Biochemistry and Molecular Biology

145. Pioglitazone Decreases Hepatitis C Viral Load in Overweight, Treatment NaïVe, Genotype 4 Infected-V Patients: A Pilot Study

Mario Chojkier, Hisham Elkhayat, Dina Sabry, Michael Donohue and Martina Buck.

Plos One, 7 (3): 0-0 (2012) IF: 4.092

Insulin resistance (IR) is induced by chronic hepatitis C virus (HCV) genotypes 1 and 4 infections. It is not known whether drugs that affect IR such as Pioglitazone and Prednisone also affect serum HCV RNA titers independently of PEG-Interferon-a2/ribavirin treatment. the primary aim was to assess whether Pioglitazone by improving IR and/or inflammation decreases HCV viral load independently of standard of care HCV treatment. A secondary aim was to assess whether Prednisone, a drug that induces insulin resistance and stimulates HCV viral entry and replication in replicon culture systems, increases HCV viral load in this population.

Methodology/Principal Findings: We designed a two-arm, parallel Pilot Study of overweight, treatment na?¨ve genotype 4HCV-infected patients at a public referral Liver Clinic in Giza, Egypt. the subjects received Pioglitazone (30 mg/day for 14 days) or Prednisone (40 mg/day for 4 days) in a randomized fashion, but the two arms can be considered independent pilot studies. Only changes from baseline within each arm were assessed and no contrasts of the interventions were made, as this was not an aim of the study.

Among 105 consecutive HCV genotype 4 patients, 39 were enrolled based on the optimal sample size and power analysis according to the CONSORT statement; 20 to the Pioglitazone group and 19 to the Prednisone group. Pioglitazone was effective in decreasing serum HCV RNA at day-14 (n = 10; difference of means = 205,618 IU/ml; 95% CI 26,600 to 384,600; P,0.001). Although Prednisone did increase serum HCV RNA at day-4 (n = 10; change from baseline =242,786 IU/ml; 95% CI 285,500 to 215,700; P = 0.049), the log10 HCV RNA titers were statistically not different from baseline day-0.

Conclusion/Significance: This is the first documentation that Pioglitazone decreases the serum HCV RNA titers independently of PEG-Interferon-a2/ribavirin treatment. the novel findings of our Study provide the foundation for basic and clinical investigations on the molecular mechanisms responsible for the Pioglitazone-induced decrease in HCV genotype 4 RNA titers.

146. Effects of a Water Soluble Curcumin Protein Conjugate Versus Pure Curcumin in A Diabetic Model of Erectile Dysfunction

Mohamed Talaat Abdel Aziz, Tarek Motawi, Ameen Rezq, Taymour Mostafa,Hanan H. Fouad, Hanan H. Ahmed, Laila Rashed, Dina Sabry, Amira Senbel, A Al-Malki and Raghda El-Shafiey

J Sex Med, 9: 1815-1833 (2012) IF: 3.552

Introduction: Curcumin is involved in erectile signaling via elevation of cyclic guanosine monophosphate (cGMP).
Aim: Assessment of the effects of water-soluble curcumin in erectile dysfunction (ED).
Methods: One hundred twenty male white albino rats were divided into: 1st and 2nd control groups with or without administration of Zinc protoporphyrin (ZnPP), 3rd and 4th diabetic groups with or without ZnPP, 5th diabetic group on single oral dose of pure curcumin, 6th diabetic group on pure curcumin administered daily for 12 weeks, 7th and 8th diabetic groups on single dose of water-soluble curcumin administered with or without ZnPP, 9th and 10th diabetic groups on water-soluble curcumin administered daily for 12 weeks with or without ZnPP. All curcumin dosage schedules were administered after induction of diabetes.
Main Outcome Measures: Quantitative gene expression of endothelial nitric oxide synthase (eNOS), neuronal NOS (nNOS), inducible NOS (iNOS), heme oxygenase-1 (HO-1), nuclear transcription factor-erythroid2 (Nrf2), NF-Kb, and p38. Cavernous tissue levels of HO and NOS enzyme activities, cGMP and intracavernosal pressure (ICP).
Results: Twelve weeks after induction of diabetes, ED was confirmed by the significant decrease in ICP. There was a significant decrease in cGMP, NOS, HO enzymes, a significant decrease in eNOS, nNOS, HO-1 genes and a significant elevation of NF-Kb, p38, iNOS genes. Administration of pure curcumin or its water-soluble conjugate led to a significant elevation in ICP, cGMP levels, a significant increase in HO-1 and NOS enzymes, a significant increase in eNOS, nNOS, HO-1, and Nrf2 genes, and a significant decrease in NF-Kb, p38, and iNOS genes. Water-soluble curcumin showed significant superiority and more prolonged duration of action. Repeated doses regimens were superior to single dose regimen. Administration of ZnPP significantly reduced HO enzyme, cGMP, ICP/ mean arterial pressure (MAP), HO-1 genes in diabetic groups.
Conclusion: Water-soluble curcumin could enhance erectile function with more effectiveness and with more prolonged duration of action

Keywords: Curcumin; Heme oxygenase; Diabetes; Erectile dysfunction; Cgmp.

147. IL-17 and IL-11 Gcf Levels in Aggressive and Chronic Periodontitis Patients: Relation to Pcr Bacterial Detection

Olfat G. Shaker and Noha A. Ghallab

Mediators of Inflammation, (2012) IF: 3.263

Objectives: This study evaluated IL-17 and IL-11 in gingival crevicular fluid (GCF) of generalized chronic periodontitis (GCP) and generalized aggressive periodontitis (GAgP) patients in relation to periodontopathic bacteria.
Subjects and Methods: GCF samples were collected from 65 subjects including 25 CP, 25 GAgP, and 15 controls (C) and analyzed for IL-17 and IL-11 by an enzymelinked immunosorbent assay. Molecular detection of bacteria in the dental plaque was determined by polymerase chain reaction.
Results: the total amount of IL-17 was significantly higher in GAgP group than in GCP and C groups ($P < 0.001$). the IL-11 concentration was significantly higher in C and GCP groups than GAgP group ($P < 0.001$). the IL-11/IL-17 ratio was significantly higher in the C group than in GCP and GAgP groups ($P < 0.05$).Moreover, GAgP group showed lower ratios of IL-11/IL-17 when compared to GCP group. the high positivity of P. gingivalis in the dental plaque was associated with significantly increased GCF levels of IL-17 in GCP and GAgP patients. **Conclusions**: the increased IL-17 level in GCF of GAgP suggests a potential role in the aetiopathogenesis. Meanwhile, the decreased ratio of IL-11/IL-17 might reflect an imbalance between the proinflammatory and anti-inflammatory cytokines in different periodontal diseases.

Keywords: Il-17; Il-11.

148. Polymorphisms in Interleukin-10 and Interleukin-28B Genes in Egyptian Patients with Chronic Hepatitis C Virus Genotype 4 and their Effect on the Response to Pegylated Interferon/ Ribavirin-Therapy

Olfat G Shaker and Nermin A H Sadik

Journal of Gastroenterology and Hepatology, 27: 1842-1849 (2012) IF: 2.865

Recently, it has been suggested that single nucleotide polymorphisms (SNPs) in some cytokine genes may influence the production of the associated cytokines that affect the host immune response to pegylated interferon-a (Peg-IFN-a) with ribavirin (RBV) in hepatitis C virus (HCV) patients. the aim of the present study was to investigate the possible role of the SNPs of IL-10 and Il-28B and their serum levels in predicting the response to treatment of HCV-4.
Methods: Egyptian patients were treated with Peg-IFN-a/RBV. A total of 100 HCV genotype 4-infected patients and 80 healthy control subjects were included in the present study. SNPs in the IL-10 (-592 A/C and -819 T/C) and IL-28B (rs8099917 T/G and rs12979860 C/T) genes and their serum levels were assessed. the IL-10-592-CC, IL-28- rs8099917-TT and IL-28-rs12979860-CC genotypes were significantly higher in responders than in non-responders.
Results: Interestingly, the serum levels of IL-10 were significantly increased; in contrast, the serum levels of Il-28B were significantly decreased in HCV patients compared with normal patients. Polymorphisms in IL-28B are more sensitive ($P < 0.001$) than those in IL-10-592 ($P = 0.03$). However, the serum level of IL-10 is higher than that of IL-28, and this difference can serve as a prognostic marker using a receiver operator characteristic (ROC) analysis.
Conclusions: It can be concluded that SNPs in IL-28B and the serum levels of Il-10 and IL-28 may be promising predictors for HCV therapy.

Keywords: Hepatitis C Patients; Interleukin-10; Interleukin-28; Single Nucleotide Polymorphisms.

149. Single-Nucleotide Polymorphism in the Promoter Region of the Osteopontin Gene at Nucleotide -443 as A Marker Predicting the Efficacy of Pegylated Interferon/Ribavirin-Therapy in Egyptians Patients with Chronic Hepatitis

Olfat Gamil Shaker, Nermin A.H. Sadik and Abeer El-Dessouki

Hum Immunol, 73 (10): 1039-1045 (2012) IF: 2.837

Osteopontin (OPN) is an extracellular matrix glycophosphoprotein produced by several types of cells including the immune system. the present study examined the possibility that single-nucleotide polymorphisms (SNP) in the promoter region of the OPN at nt 443 is a marker predicting the therapeutic efficacy of pegylated interferon (peg-IFN-α2b)–ribavirin combination therapy in Egyptian patients with chronic hepatitis C. Blood was collected from 95 patients with chronic hepatitis C who had received peg-IFN- α2b–ribavirin combination therapy and 100 age and sex matched controls. SNP in OPN at nucleotide (nt) 443 and its serum protein level were analyzed. Sustained virological response (SVR) was higher in patients with T/T at nt 443 than in those with C/C or C/T. A univariate logistic regression analysis showed that fibrosis grade, serum OPN protein level and T/T homozygotes of SNP at 443 were significant predictors for response. Receiver operating characteristics (ROC) analysis revealed the diagnostic and prognostic efficacy of serum OPN. It can be concluded that SNP in the promoter region of OPN at nt 443 and serum OPN protein level are predictors of response to the efficacy of peg-IFN- α2b–ribavirin therapy in Egyptian patients with chronic hepatitis C.

Keywords: Osteopontin; Hcv.

150. Dietary Folate Suppresses Dmh-Induced Colon Carcinogenesis in A Rat Model and Affects Dmh-Induced Expression of Four Dna Repair Enzymes

Nermin A. H. Sadik and Olfat G. Shaker

Nutrition and Cancer, : 1-8 (2012) IF: 2.783

This study investigated the potential role of folate in the dimethylhydrazine (DMH) colon cancer model inmaleWistar rats. for induction of colon cancer, group 1 rats were injected subcutaneously with 30 mg DMH/kg body weight weekly for 30 wk. Group 2 received DMH vehicle. Group 3 rats received DMH as in Group 1 but their diet was supplemented with 8 mg folate/kg diet. Group 4 was fed diet supplemented with 8 mg folate/kg diet. Upregulation of DNA damage repair genes Apurinic/apyrimidinic endonuclease 1, X-ray repair complementing defective repair in Chinese hamster cells 5, 8-oxoguanine-DNA glycosylase, and proliferating cell nuclear antigen, associated with a reduction of folic acid level was observed in colons of DMH group. Reductions of these gene upregulations and a significant increase of colonic folic acid level occurred in the DMHgroup supplemented with folic acid and this group also had significant inhibition of tumor incidence, normal survival rate and histologically nearly normal colonic architecture. It can be concluded that folate supplementation exerts a potent protective effect on rat colon carcinogenesis via significant modulation of DNA repair, providing a mechanism by which it plays a role in the etiology of human cancer.

Keywords: Folic Acid; Colon Cancer.

151. Connexin 26 in Psoriatic Skin Before and After Two Conventional Therapeutic Modalities: Methotrexate and Puva

Olfat Shaker and Mona Abdel-Halim

Eur J Dermatol, 22 (2): 218-224 (2012) IF: 2.526

Direct intercellular signaling, which controls keratinocyte behavior, proliferation and differentiation, occurs through gap junctions.
Altered expression of connexins may play a role in the development of psoriatic lesions. Objectives: We estimated connexin 26 (Cx26) mRNA in psoriatic patients and investigated whether the standard therapeutic modalities (methotrexate and PUVA) exert their anti-psoriatic activity partially through altering Cx26 mRNA levels. We also detected Cx26 in skin biopsies by immunohistochemistry. RT-PCR measured Cx26 mRNA levels in 24 chronic plaque psoriasis patients.
Group A received intramuscular methotrexate and group B was treated by PUVA for ten weeks, each followed by measurement of Cx26 mRNA levels and immunohistochemistry. Twelve healthy volunteers served as controls. Results: Cx26 mRNA expression was significantly higher in the patients before treatment than in controls ($P<0.001$). Post treatment levels were significantly lower than pre-treatment levels ($P<0.001$), however, significantly higher than in controls ($P<0.001$). Methotrexate and PUVA caused significant reductions in Cx26 mRNA expression ($P=0.002$, $P=0.028$ respectively). Post treatment levels were slightly significantly lower in the methotrexate group than in the PUVA group ($P=0.046$). the reduction in Cx26 mRNA expression was significantly positively correlated with the clinical improvement of the psoriatic plaque ($P=0.002$).
Immunostaining of Cx26 decreased after treatment. Conclusion: Altered expression of the gap junction protein Cx26 may have a role in the development of the psoriatic phenotype. Both methotrexate and PUVA significantly lowered the expression of Cx26 mRNA and protein.

Keywords: Psoriasis; Gap junctions; Connexin 26; Methotrexate; Puva.

152. Does Interferon and Ribavirin Combination Therapy Ameliorate Growth Hormone Deficiency in Hcv Genotype-4 Infected Patients?

Emad F. Eskander , Ahmed A. Abd-Rabou , Shaymaa M.M. Yahya , Olfat G. Shaker and Mervat S. Mohamed

Clin Biochem, 45: 3-6 (2012) IF: 2.076

Objectives: to explore the impact of response to interferon and ribavirin antiviral therapy on human growth hormone (hGH) levels in Egyptian chronic hepatitis C genotype-4 infected patients.
Design and methods: We studied eighty Egyptian HCV infected patients visiting outpatient clinics of Tropical Medicine and Hepatology Department, El-Kasr El-Aini Hospital, Cairo University, Egypt. HCV patients received treatment of interferon and ribavirin combination therapy for 24 weeks. Clinical, virological, histological characteristics, and biochemical tests including; liver function tests (ALT and AST), prothrombin time (PT), alpha fetoprotein (AFP), complete blood picture (CBC), and hGH were monitored in hepatitis C genotype-4 infected patients before and after interferon therapy, and healthy controls.

Results: Chronic HCV genotype-4 infected patients have high significant decrease of hGH as compared to healthy control individuals. in addition to, there was high significant increase of hGH in responders as compared to non-responders after treatment.
Conclusion: We concluded that Egyptian HCV genotype-4 infected patients have growth hormone insufficiency. Besides, we found that response to interferon/ribavirin treatment has an impact on growth hormone levels.

Keywords: Growth hormone; Hcv genotype; 4 Ifn/Rbv combination therapy.

153. Rantes, Tnf-α, Oxidative Stress, and Hematological Abnormalities in Hepatitis C Virus

Gamil Amin Tawadrous, Amal A. Aziz, Dalia G. Amin, Ahmed Eldemery and Mostafa Abdel-Aziz Mostafa

J. Invest Med, 60: 878-882 (2012) IF: 1.964

Background: Chronic infection with hepatitis C virus (HCV) is associated with failures of T-cellYmediated immune clearance and with abnormal B-cell growth and activation. Hepatitis C virus infection is characterized by a systemic oxidative stress that is most likely caused by a combination of chronic inflammation, iron overload, liver damage, and proteins encoded by HCV. After a viral infection, multiple proinflammatory mediators contribute to recruitment of immune cells to the liver and to the generation of an antiviral immune response. Recent publications mark chemokines and their receptors as key players in leukocyte recirculation through the inflamed liver.
Materials and Methods: the present study involved 75 male subjects, divided into 2 groups: group 1 (n = 30), control group; group 2 (n = 45), patients with chronic HCV. for all subjects, the following investigations were performed: estimation of the levels of bilirubin, albumin, prothrombin concentration, glycosylated hemoglobin, creatinine, >-fetoprotein, HCV RNA, and activities of alanine and aspartate transaminases as well as alkaline phosphatase. in addition, regulated on activation normal T cell expressed and secreted (RANTES), tumor necrosis factor alpha, malondialdehyde (MDA) and nitric oxide (NO) were assessed. Plasma HCV-RNA concentration (viral load) was determined by real-time polymerase chain reaction (PCR) StepOne system using Applied Biosystem. Complete blood picture was assayed using Abbott Cell-Dyn 3700 hematology analyzer.
Results: There were significant increases of the levels of RANTES, tumor necrosis factor alpha, MDA, and NO in HCV-infected patients compared with the control group (P G0.05); and in these patients, these levels showed significant positive correlation with the HCV RNA viral load. Also, mild leukopenia, thrombocytopenia, neutropenia, and lymphocytosis, with consequent significant increase in the lymphocytes/ neutrophils ratio, were detected in these patients.
Conclusion: the data support the concept of chemokines (RANTES) as mediators of liver cell injury in HCV infection. in addition, MDA and NO levels might be used as monitoring markers for oxidative stress in hepatitis C infection.

Keywords: Chronic Liver Disease; Rantes; Tnf-α; Nitric Oxide; Mda; Real-Time Pcr; Complete Blood Picture.

154. Changes in Adipocytokines and Insulin Sensitivity During and After Antiviral Therapy for Hepatitis C Genotype 4

Mahmoud A. Khattab, Mohammed Eslam, Mohammed Shatat, Hesham Abd-Aalhalim, Yousef I. Mousa, Fatma Samir, Hanan Aly, Olfat Shaker and Yehia Shaker

J. Gastrointestin Liver Dis, 21 (1): 59-65 (2012) IF: 1.811

Hepatitis C virus (HCV) infection, especially genotypes 1 and 4, is associated with wide metabolic disarrangements.
Aim: to assess whether host metabolic factors influence sustained virological response (SVR) in patients with chronic hepatitis C genotype 4 (HCV- 4) treated with peginterferon / ribavirin and to evaluate the impact of antiviral therapy on insulin resistance (IR) and serum levels of adipocytokines.
Methods: Changes in levels of adiponectin, leptin, TNF-α and the homeostasis model assessment for insulin resistance (HOMA-IR) on antiviral combination in patients with HCV-4 were analyzed and effect on response was studied.
Results: 107 patients were included (M/F 86/21; mean age 41.4±5.6 years). Neither serum adipocytokines nor HOMA-IR was correlated with viral load. SVR was achieved by 57% of patients and was associated with fibrosis score (odds ratio: 6.5; P = 0.001) and adiponectin level (odds ratio: 1.3; P = 0.01). at the end of follow-up, HOMA-IR, adiponectin, leptin and TNF-α were reduced, all these changes unrelated to predicting the outcome of treatment. at follow-up, HOMA-IR and adiponectin continued to decrease in patients with SVR, but remained unchanged significantly in patients who did not response or relapse.
Conclusions: Serum adiponectin at baseline appears to be an independent predictor for the achievement of SVR and can be utilized as an additional predictive marker. Changes of IR and adipocytokines occur under treatment which is more evident with the resolution of HCV infection, suggesting that HCV could have a direct role in these metabolic changes.

Keywords: Hepatitis C; Insulin resistance; Homa; Adiponectin; interferon.

155. Epidermal Growth Factor Gene Polymorphism 61A/G in Patients with Chronic Liver Disease for Early Detection of Hepatocellular Carcinoma: A Pilot Study

Emad Abbas, Olfat Shaker, Ghada Abd El Aziz, Huda Ramadan and Gamal Esmat

European Journal of Gastroenterology & Hepatology, 24 (4): 458–463 (2012) IF: 1.757

Overexpression of epidermal growth factor (EGF) in the liver induces transformation into hepatocellular carcinoma (HCC) in animal models. Polymorphisms in the EGF gene modulate EGF levels.
Objectives to evaluate the effect of EGF gene single nucleotide polymorphism and to assess its correlation with the risk of HCC in patients with chronic liver diseases.
Patients and methods the present study included 80 participants divided into four groups: group 1 included 20 asymptomatic healthy control volunteers, group 2 included 20 patients with chronic hepatitis C viral (HCV) infection, group 3 included 20 patients with liver cirrhosis, and group 4 included 20 patients with HCC. for all participants, the following investigations were

performed: routine laboratory investigations including complete blood count, liver function tests, sero markers of hepatitis viruses HBsAg, HCV-RNA by quantitative polymerase chain reaction, and a-fetoprotein. DNA was extracted from whole blood for detection of single nucleotide polymorphism of the EGF by polymerase chain reaction, followed by restriction fragment length polymorphism.Results We found a significant difference between both patients with HCC and HCV versus controls in terms of the G carrier (GG and GA; 80 vs. 40%, $P < 0.05$). in addition, the cirrhotic and chronic hepatitis C patients with GG had three-fold and 2.3-fold odds ratio for developing HCC, respectively.

Conclusion the EGF 61GG genotype might be associated with a high risk for the development of HCC in Egyptian patients with chronic liver disease. Patients and methods the present study included 80 participants divided into four groups: group 1 included 20 asymptomatic healthy control volunteers, group 2 included 20 patients with chronic hepatitis C viral (HCV) infection, group 3 included 20 patients with liver cirrhosis, and group 4 included 20 patients with HCC.

For all participants, the following investigations were performed: routine laboratory investigations including complete blood count, liver function tests, sero markers of hepatitis viruses HBsAg, HCV-RNA by quantitative polymerase chain reaction, and a-fetoprotein. DNA was extracted from whole blood for detection of single nucleotide polymorphism of the EGF by polymerase chain reaction, followed by restriction fragment length polymorphism.

Keywords: Chronic liver disease; Epidermal growth factor; Hepatocellular carcinoma; Polymorphism.

156. Is Human Papilloma Virus Associated with Salivary Gland Neoplasms? An in Situ-Hybridization Study

Layla Hafed, Heba Farag, Olfat Shaker and Dalia El-Rouby

Arch Oral Biol, 57: 1194-1199 (2012) IF: 1.603

HPV can infect cells of epithelial origin and is closely associated with carcinomas. Studies investigating its presence in salivary gland neoplasms are few and conflicting.

Methods: Detection of HPV types 16 & 18 was done on 34 formalin-fixed, paraffin-embedded archival material of different salivary gland neoplasms using Digene HPV types 16 & 18 probe using in situ hybridization technique.

Results: Eight of neoplastic salivary gland specimens were positively infected by HPV types16 & 18. Seven of them were benign (4 Warthin's tumour, 2 pleomorphic adenoma and one myoepithelioma), in addition to one malignant specimen (lymphoma). Correlation was found between the incidence of HPV infection and histological differentiation of salivary gland neoplasms.

Conclusions: an association exists between HPV infections and salivary gland neoplasms. However, given the sparse pattern of reactive cells, it cannot be confirmed that this virus is implicated in the aetiology of this group of tumours.

Keywords: Hpv; Salivary Gland Neoplasms; in Situ Hybridization.

157. Effect of Novel Water Soluble Curcumin Derivative on Experimental Type- 1 Diabetes Mellitus (Short Term Study)

Mohamed T Abdel Aziz, Mohamed F El-Asmar, Ibrahim N El-Ibrashy, Ameen M Rezq, Abdulrahman L Al-Malki, Mohamed A Wassef, Hanan H Fouad, Hanan H Ahmed, Fatma M Taha, Amira A Hassouna and Heba M Morsi

Diabetology & Metabolic Syndrome, 4 (30): (2012) IF: 1.526

Background: Diabetes mellitus type 1 is an autoimmune disorder caused by lymphocytic infiltration and beta cells destruction. Curcumin has been identified as a potent inducer of heme-oxygenase-1 (HO-1), a redoxsensitive inducible protein that provides protection against various forms of stress. A novel water soluble curcumin derivative (NCD) has been developed to overcome low in vivo bioavailability of curcumin. the aim of the present work is to evaluate the anti diabetic effects of the "NCD" and its effects on diabetes-induced ROS generation and lipid peroxidation in experimental type- 1 diabetes mellitus. We also examine whether the up regulation of HO-1 accompanied by increased HO activity mediates these antidiabetic and anti oxidant actions.

Materials and methods: Rats were divided into control group, control group receiving curcumin derivative, diabetic group, diabetic group receiving curcumin derivative and diabetic group receiving curcumin derivative and HO inhibitor ZnPP. Type-1 diabetes was induced by intraperitoneal injection of streptozotocin. Curcumin derivative was given orally for 45 days. at the planned sacrification time (after 45 days), fasting blood samples were withdrawn for estimation of plasma glucose, plasma insulin and lipid profile . Animals were sacrificed; pancreas, aorta and liver were excised for the heme oxygenase - 1 expression, activity and malondialdehyde estimation.

Results: NCD supplementation to diabetic rats significantly lowered the plasma glucose by 27.5% and increased plasma insulin by 66.67%. on the other hand, the mean plasma glucose level in the control group showed no significant difference compared to the control group receiving the oral NCD whereas, NCD supplementation to the control rats significantly increased the plasma insulin by 47.13% compared to the control. NCD decreased total cholesterol, triglycerides, LDL cholesterol and increased HDL cholesterol levels. Also, it decreased lipid peroxides (malondialdehyde) in the pancreas, aorta and liver.

Conclusion: the (NCD) by its small dose possesses antidiabetic actions and that heme oxygenase induction seems to play an important role in its anti-diabetic effects. NCD also improves the lipid profile and oxidative status directly, proved by decreasing lipid peroxides (malondialdehyde) in pancreas, liver & aorta. the new water soluble curcumin derivative still retains the essential potencies of natural curcumin.

Keywords: Diabetes Type 1; Heme Oxygenase?1; Curcumin; Insulin Secretion; Oxidative Stress.

158. Occult Hepatitis B in Egyptian Thalassemic Children

Olfat Shaker, Amal Ahmed, Inas abdel Satar, Hamza El Ahl, Wafaa Shousha and Wahid Doss

J. Infect Dev Ctries, 6 (4): 340-346 (2012) IF: 1.191

Thalassemia is hereditary anemia which requires lifelong transfusion as treatment, and hepatitis viral infection is one of the

risks of repeated transfusions. Hepatitis B outbreaks in health-care settings are still a serious public health concern worldwide. Blood samples negative for HBsAg but positive for HBV-DNA, with or without the presence of HBV antibodies, are classified as "occult" HBV infection (OBI). This study investigated the prevalence of occult HBV infection in Egyptian thalassemic children.

Methodology: Eighty patients admitted to the Faculty of Medicine, Cairo University Hospital, were involved in this prospective study. Strict inclusion criteria were set to nullify the effect of confounding variables and further minimize selection bias. the following laboratory investigations were performed: complete blood count (CBC); serum AST and ALT; albumin; bilirubin; HBsAg; HBeAg; HBcAb; HCV-RNA; and HBV-DNA.

Results: All our patients had no clinical manifestation suggestive of hepatitis. Molecular biology studies revealed positivity for HCV and HBV at 25% and 32.5% respectively.

Conclusion: the estimated risk of acquiring hepatitis B and C infection in children receiving multiple blood transfusions is surprisingly high. Moreover, occult hepatitis B infection is a considerably risk.

Keywords: Occult Hbv; Hepatitis C Virus; Dna; Thalassemia; Pediatrics.

159. Effect of Some Medicinal Plant Extracts on the Oxidative Stress Status in Alzheimer'S Disease Induced in Rats

K. Mahdy, O. Shaker, H. Wafay, Y. Nassar, H. Hassan and A. Hussein

European Review for Medical and Pharmacological Sciences, 16: 31-42 (2012) IF: 1.04

Alzheimer's disease (AD) is a progressive neurodegenerative disorder. Increased oxidative stress has been shown to be a prominent and early feature in AD. Medicinal plants with antioxidant activities have been used traditionally in the treatment of several human diseases. the present study aims to investigate the effect of Salvia triloba and Piper nigrum plant extracts on the oxidative stress status in Alzheimer's disease induced in rats.

Materials and Methods: 70 male rats were enrolled in this study and were classified into 7 groups (ten each). Group 1: control group, group 2: AD-induced rats by aluminum chloride,and served as positive control; group 3: AD group treated with Rivastigmine in a dose of 0.3 mg/kg b. wt. daily for three months; group 4 & 5: AD group treated with total extract of Salvia triloba in a dose of 750 or 375 mg/kg b. wt. respectively, daily for three months; group 6 & 7: AD group treated with total extract Piper nigrum in a dose of 187.5 or 93.75 mg/kg b. wt. respectively, daily for three months. After three months of treatment animals' sera and brain samples were collected. Malondialdehyde (MDA), nitric oxide (NO) and total antioxidant capacity (TAC) were determined in serum while superoxide dismutase (SOD) in erythrocyte. Brain samples were divided sagitally into two portions, the first portion was separated for determination of acetylcholine (Ach) and acetycholinesterase (AchE). the second portion was used for histopathological investigation.

Results: the results indicated that extracts of Salvia triloba and Piper nigrum as well as Rivastigmine showed significant increase in brain Ach, serum TAC and SOD and significant decreases in brain AchE, MDA and NO in AD-induced rats. Moreover, histological investigation of brain sections showing nearly normal histological structure of hippocampus. Treatment with Salvia triloba in a dose of 750 mg/kg b. wt. was more powerful in protection from Alzheimer's disease than Piper nigrum, as indicated by both biochemical and histopathological findings.

Conclusion: This study revealed that the treatment of AD-induced rats with Salvia triloba and Piper nigrum, total plant extracts significantly reduced the oxidative stress status and ameliorates the neurodegeneration characteristic of Alzheimer's diseases in rats. Noteworthy, Salvia triloba extract showed more interest in improvement Alzheimer's disease in rats.

Keywords: Alzheimer'S disease; Oxidative stress; Salvia triloba; Piper nigrum; Extract.

160. B-Cell Activating Factor (BAFF) in Systemic Lupus Erythematosus, Rheumatoid Arthritis, and Behçet'S Disease

Amina Badr Eldin, Safaa Sayed, Gehan Hegazy and Olfat Shaker

Turk J Rheumatol, 27(3): 185-194 (2012) IF: 0.191

Objectives: This study aims to determine B-cell activating factor (BAFF) serum levels in rheumatoid arthritis (RA), systemic lupus erythematosus (SLE) and Behçet's disease (BD) and correlate these levels with disease activity and severity.

Patients and methods: Between December 2010 and December 2011, 63 Egyptian patients with collagen diseases [RA (n=21), SLE (n=21); BD (n=21)] were recruited from Cairo and Ain Shams University Hospitals, along with 21 apparently healthy individuals as controls.

All participants underwent history taking, clinical examination, laboratory and radiological investigations, and disease activity score estimation. the serum BAFF level was measured by an enzyme-linked immunosorbent assay (ELISA) kit.

Results: the BAFF serum levels were significantly elevated in patients with SLE and BD versus the healthy controls ($p<0.011$, $p<0.023$) and in SLE versus RA and BD ($p<0.024$, $p<0.026$). A significant positive correlation was found between the BAFF and C-reactive protein (CRP) ($r=0.928$, $p<0.0001$), the Disease Activity Score 28 (DAS28) ($r=0.810$, $p<0.0001$), and disease control ($r=0.834$, $p<0.0001$) in RA. Also, a significant positive correlation was found between BAFF and SLE Disease Activity Index (SLEDAI) score classification ($r=0.894$, $p<0.0001$) and SLEDAI score ($r=0.748$, $p<0.0001$) in SLE as well as between the BAFF and disease duration ($r=0.578$, $p<0.006$) in BD.

Conclusion: the BAFF serum levels are increased in patients with SLE and BD versus the controls and in patients with SLE compared with those with RA and BD.

They also have a positive correlation with disease severity in SLE and RA, which suggests that BAFF may play a role in the pathogenesis and activity of these diseases. These results may pose the possibility that a human monoclonal antibody drug which selectively inhibits BAFF biological activity may be useful in the treatment of active resistant cases.

Keywords: Behçet's disease; Disease activity; Rheumatoid arthritis; Serum B-Cell activating factor; Systemic lupus erythematosus.

161. Association between CC16 Polymorphism and Bronchial Asthma

Nisreen M.El Abiad, Hisham Waheed, William M. Morcos, Samar M. Salem, Hala Ataa and Olfat G. Shaker

Life Science Journal., 9 (1): 265-270 (2012) IF: 0.079

Asthma is one of the most common chronic pediatric diseases, and is responsible for a significant proportion of school day losses. Asthma is influenced by genetic and environmental factors. the inheritance pattern of asthma demonstrates that it is a complex genetic disorder. Clara cell secretory protein (CC16) is an ideal candidate for involvement in an inherited predisposition to asthma owing to its chromosomal location, nature and function.
Objective: to screen exons of CC16 gene on chromosome 11 for detection of sequence variation in families to determine whether these allelic polymorphism are associated with clinical asthma or not and to detect the relation between type of genetic polymorphism and asthma severity.
Patients and Methods: This study included 20 stable asthmatic children with 21 of their atopic family members, also 11 healthy non atopic subjects were included as control group, all cases were subjected to genetic study methods including pedigree construction, PCR and detection of allelic polymorphism.
Results: Significant correlation (90%) between homozygous CC16, 38 (AA) (75%) and 38 (AG) (15%) allelic polymorphism and increased prevalence of asthma was detected in families but there was no correlation between CC16 allelic polymorphism and asthma severity.
Conclusion: There was a correlation between CC16 allelic polymorphism and increased prevalence of asthma and this gene is present also in normal subjects who are not triggered by environmental factors.

Keywords: Cc16; Gene Polymorphism; Pcr; Asthma.

162. Glutathione Peroxidase, Superoxide Dismutase and Catalase Activities in Children with Chronic Hepatitis

Nagwa Abdallah Ismail, Sawsan H. Okasha, Anil Dhawan, Azza M. O. Abdel Rahman, Nehal Abdel Hamid and Olfat Shaker

Advances in Bioscience and Biotechnology, 3: 972-977 (2012)

the advantages of measuring hepatic oxidative status in liver biopsy are that it helps in diagnosis of hepatic dysfunction, reflects the degree of deterioration in the liver tissues, and helps to determine the severity of hepatic injury. We aimed to study the oxidative stress state in children with chronic hepatitis by using indi- rect approach in which antioxidant enzymes such as glutathione peroxidase (GPX), superoxide dismutase (SOD) and catalase (CAT) are determined in the liver tissue. the present study included 21 children and adolescents (12 males, 9 females) suffering from chro- nic hepatitis. Patients were selected from the Hepa- tology Clinic, New Children's Hospital, Cairo Uni- versity from November 2006 till 2009 and compared with a group of 7 children who happened to have in- cidental normal liver biopsy. Children with chronic hepatitis had mean age 8.12 ± 1.15 years. It was fur- ther subdivided into 2 subgroups: chronic viral heap- titis (n = 13) and cryptogenic hepatitis (n = 8). GPX, SOD and CAT levels were measured in fresh liver tissue (cell free homogenates) using ELISA. in chro- nic hepatitis group; there was a significant increase in the hepatic GPX activity (38.59 ± 35.82 nmol/min/ml) as compared to the control group (10.62 ± 6.68 nmol/min/ml). Also a significant correlation was ob- served between SOD and both ALT ($r = 0.87$, $p < 0.05$) and AST ($r = 0.74$, $p < 0.05$). GPX correlated with ALT ($r = 0.80$, $p < 0.05$) level in the chronic viral he-patitis subgroup. Our findings suggest that oxida- tive stress could play a role in the pathogenesis of chronic hepatitis. These preliminary results are en- couraging to conduct more extensive clinical studies combining antioxidant therapy with various treatments.

Keywords: Glutathione Peroxidase; Superoxide Dismutase; Catalase; Chronic Hepatitis; Oxidative Stress.

163. Novel Anticancer Curcumin Derivative with Conserved Functional Groups

Mohamed T. Abdel Aziz, Mohamed F. El-Asmar, Ameen M. Rezq, Hanan H. Fouad, Hanan H. Ahmed, Amira A. Hassouna, Fatma M. Taha and Hafez F. Hafez

Journal of Cancer Therapeutics and Research, (2012)

Curcumin, a polyphenol from turmeric, has potent anticancer properties in human cancer cell lines. Nevertheless, its multitargeting clinical application in cancer and other diseases is hampered by its poor systemic bioavailability. A novel curcumin derivative "NCD" was developed through covalent modification of the curcumin "CUR" molecule on sites remote from its natural functional groups.
Methods: the NCD was tested for its anticancer effect against six human cancer cell lines in comparison to CUR and the standard anticancer drug Doxorubicin "DOX". in vivo structure-action relationship to the dose-dependent inducible plasma Glutathione S-transferase (GST) was studied. Plasma GST activity was estimated one and half and 24 hours after oral administration of each of CUR and the NCD.
Results: the NCD showed significantly lower Half-maximal inhibitory concentrations (IC50s) as compared to the DOX with each of HELA, the human cervical, MCF7, the human breast and HCT116, the human colonic cancer cell lines. Significant improvements in terms of lower IC50 as compared to CUR with all tested human cancer cell lines were also found. in vivo, the NCD showed significant elevations in inducible plasma GST in the 1.5 hr and the 24 hr duration studies as compared to CUR.
Conclusion: the IC50 anticancer effect of the NCD significantly was improved against six human cancer cell lines in comparison to CUR. the NCD retained an improved potency in terms of in vivo structure-action relationship to dose-dependent induction of plasma GST. with GST as biomarker for cancer, it should not be taken as parameter in studies and/or clinical trial involving both cancer and CUR as GST is dosedependently inducible by CUR and some of its derivatives.

Keywords: Curcumin derivative; Cell line.

164. Amelioration of Murine Schistosoma Mansoni Induced Liver Fibrosis by Mesenchymal Stem Cells

Abdel Aziz MT, Atta HM, Roshdy NK, Rashed LA1, Sabry D, Hassouna AA, Aboul Fotouh GI, Hasan NM,Younis RH and Chowdhury

Journal of Stem Cells and Regenerative Medicine, 8 (1) P28: 1-34 (2012)

Schistosomiasis is a common chronic helminthic infection of the liver that causes hepatic fibrosis and portal hypertension,

contributing to the death of over half a million people a year. Infusion of autologous bone marrow cells into patients with hepatic cirrhosis has been reported to ameliorate symptoms of portal hypertension and improve liver function, either by conversion of the infused mesenchymal stem cells (MSCs) to hepatocytes or by modulating of the hepatic fibrosis. Here, we have investigated the antifibrotic effect of mesenchymal stem cells (MSCs) using S. mansoni-induced liver fibrosis in mice, which causes an intense, stable fibrosis. MSCs derived from bone marrow of male mice were then infused intravenously into female mice that had received intraperitoneal injection of S.mansoni cercariae. Mice were divided into 4 groups: Untreated control; MSCs infusion only; Schistosomiasis only; and Schistosomiasis plus MSCs infusion. Serum alanine aminotransferase (ALT) and liver histopathology were evaluated. Expression of the collagen gene (type I), transforming growth factor (TGF-?), matrix metalloproteinase (MMP2), tissue inhibitor of metalloproteinase (TIMP-1), stromal cell–derived factor–1(SDF-1) and its receptor (CXCR4) were analyzed. MSC infusion resulted in significant decrease in liver collagen and TGF-? gene expression in the Schistosomiasis mice. the ratio of MMP-2 to TIMP-1 expression increased. SDF-1 and CXCR4 mRNA expression also increased. There was overall improvement of liver histology and a statistically significant reduction of serum ALT level. MSCs infusion ameliorated S. mansoni-induced liver fibrosis, probably by modulating the relative expression of MMP and TIMP. the findings support the hypothesis that MSCs participate in liver regeneration and functional improvement by reducing liver fibrosis.

Keywords: Schistosoma Mansoni; Liver Fibrosis; Stem Cells.

165. The Diagnostic and Prognostic Value of Salivary Scd44 Level Determination in Oral Malignant and Potentially Premalignant Lesions

Dalia M. Ghalwash, Khaled El Gaaly, Fat'heya M. Zahran, Olfat Shaker and Hossam A. El-Fol

Advances in Environmental Biology, 6 (1): 302-310 (2012)

A key factor in the lack of improvement in prognosis of oral squamous cell carcinoma (OSCC) lesions over the years is the fact that a significant proportion are not diagnosed or treated until they reach an advanced stage. A molecular marker for malignant transformation in innocent looking oral lesions and a monitor for the aggressiveness of malignant lesions might be of help. the present study included 40 subjects: 10 healthy control subjects, 10 patients with potentially premalignant oral lesions with dysplastic changes and 10 others without, in addition to 10 patients suffering from OSCC. Levels of soluble CD44 (sCD44) were measured in whole unstimulated saliva (WUS) using an enzyme linked immune- assay (ELISA). in patients suffering from malignant lesions the salivary sCD44 level was correlating well with the grading of the lesion. Also, most of the patients with the highest salivary sCD44 levels showed postoperative relapse. A highly significant difference was found in the mean value of salivary sCD44 level between the control group and the premalignant with dysplasia and the cancer groups, and on the other hand, a non significant difference was found between the control and the premalignant without dysplasia group. Also, a highly significant difference was found between salivary sCD44 level in cancer patients and those with premalignant lesions without dysplasia, and non significant difference between the cancer patients and those with premalignant lesions with dysplasia. A ROC Curve was created to estimate salivary sCD44 level with the highest sensitivity and specificity which was 100% and 66.7% respectively. Results indicated that a level of salivary sCD44 lying within the range of 19.2 to 20.4 ng/ml could indicate malignant transformation within oral mucosal lesions.

Keywords: Salivary Scd44; Oral Malignant Lesions; Oral Potentially Premalignant Lesions.

166. Skin Tags and Acanthosis Nigricans in Patients with Hepatitis C Infection in Relation to Insulin Resistance and Insulin Like Growth Factor-1 Levels

Omar Soliman El Safoury, Olfat G Shaker, and May Mohsen Fawzy

Indian Journal of Dermatology, 57 (2): 102-106 (2012)

Skin tags (ST) are papillomas commonly found in the neck, axillae of middle-aged and elderly people Aim: Insulin and insulin-like growth factor (IGF-1) levels are affected by hepatitis C virus (HCV) infection and both of them may be implicated in the etiopathogenesis of ST and acanthosis nigricans (AN) through their proliferative and differentiating properties. So, the aim of this work was to evaluate the impact of HCV infection on ST and AN through the estimation of insulin resistance and IGF-1. **Materials and Methods**: Participants were arranged into four groups: (ST +ve / HCV +ve) 23 subjects, (ST+ / HCV -ve) 19 subjects, (HCV -ve / STve) 20 subjects and (ST-ve /HCV +ve) 22 subjects. Age, ST size, color, number, AN, fasting glucose, fasting insulin, insulin resistance, IGF-1, HCV-antibodies (Ab) were recorded.
Results: the mean number of ST in Group 1 was half the number of ST in Group 2 (11.0±9.3 / 22.3±14.0) (P=0.005). the difference in insulin resistance between the same groups was non-significant (13.1±10.6 / 9.0±5.5) (P=0.441) while the difference in IGF-1 was statistically significant (218.6±46.2 /285.4±32.8) (P=0.002). the multivariate logistic regression for the variables revealed that insulin resistance is the only factor affecting the occurrence of ST (OR=1.096, P=0.023). Multivariate regression analysis for the variables showed that HCV was borderline but not a significant factor affecting the number of ST (Beta=-0.409, P=0.053). the number of patients with AN was doubled in Group 2 in comparison to Group 1 but this was non significant 3(13%) ? 6(32%) (P=0.2800).
Conclusion: HCV is associated with a significant decrease in the ST number and in the serum level of IGF-1 together with an obvious decrease in the occurrence of AN. Our results may point to the entrant effect of insulin resistance and IGF-1 in ST and AN development. the current study suggests the evaluation of IGF-1-lowering agents in the control of ST and AN especially in the females with polycystic ovary and in the prevention of the recurrence of ST after surgical removal.removal.

Keywords: Acrochordons; Acanthosis Nigricans; Hepatitis C Virus; Insulin Resistance; Insulin-Like Growth Factor-1; Skin Tags.

167. Saving Big Toe of Diabetic Foot by Using Autologous Blood Injection: A Case Report

Mohammed Al Azrak and Olfat Shaker

Journal of Wound Technology, 17: 26-28 (2012)

Surgical caring of diabetic foot includes facing a diverse spectrum of foot diseases and is challenging to the surgeon in certain

circumstances. Amputaion of foot in diabetic patients usually preceded by an ulcer in 85% of the cases. Many factors contribute to impaired healing in diabetic patients hence increase in the morbidity and mortality. Enhancing the ability of the diabetic ulcer to heal by local injection of autologous blood into the interstitium surrounding the ulcer, aiming at triggering and providing essential elements of the healing process cascade. Satisfactory results were achieved and in this case report amputation was avoided.

Keywords: Blood Injection; Diabetic Ulcers; Saving Toes.

168. Does HCV Patients Who Have BCL2 43Ala Genotype and Normal Gh1 Levels Can Achieve Response to Ifn Based Therapy?

Emad F. Eskander, Ahmed A. Abd- Rabou, Mervat S. Mohamed, Shaymaa M. M. Yahya and Olfat G. Shaker

Ind. J. Clin. Biochem, (2012)

The main objective of the current study is to examine the role of the statistical relation between BCL2 gene (Ala43Thr) single nucleotide polymorphism and growth hormone (GH1) levels in Egyptian HCV genotype- 4 patients before and after treatment with pegylated interferon plus ribavirin. Eighty patients with HCV genotype-4 and 40 healthy volunteers as controls were enrolled in the prospective study. Gene polymorphism of BCL2 (Ala43Thr) using PCR-RFLP technique and GH1 concentrations using ELISA procedure were measured for all patients and controls. the present study resulted that Responder HCV genotype-4 Patients, with BCL2 43Ala genotype, have high significant increase in pre-treatment GH1 levels ([1 ng/ml); which represent normal levels, as compared to non-responders pre-treatment GH1 levels (\1 ng/ml); which represent low concentrations. We concluded that HCV genotype-4 patients who have normal GH1 concentrations and BCL-2 43Ala genotype can successfully achieve response to interferon based therapy.

Keywords: Bcl2; Snp; Gh1; Hcv; Peg-Ifn-A/Rbv.

169. Adipose Stem Cells as Alternatives for Bone Marrow Mesenchymal Stem Cells in Oral Ulcer Healing

Aly LA, El-Menoufy H, Ragae A and Rashed LA, Sabry

International Journal of Stem Cells, 5 (2): 104-114 (2012)

Adipose tissue is now recognized as an accessible, abundant, and reliable site for the isolation of adult stem cells suitable for tissue engineering and regenerative medicine applications.

Methods and Results: Oral ulcers were induced by topical application of formocresol in the oral cavity of dogs. Transplantation of undifferentiated GFP-labeled Autologous Bone Marrow Stem Cell (BMSCs), Adipose Derived Stem Cell (ADSCs) or vehicle (saline) was injected around the ulcer in each group. the healing process of the ulcer was monitored clinically and histopathologically. Gene expression of vascular endothelial growth factor (VEGF) was detected in MSCs by Reverse Transcription-Polymerase Chain Reaction (RT-PCR). Expression of VEGF and collagen genes was detected in biopsies from all ulcers.

Results: MSCs expressed mRNA for VEGF MSCs transplantation significantly accelerated oral ulcer healing compared with controls. There was increased expression of both collagen and VEGF genes in MSCs-treated ulcers compared to controls.

Conclusions: MSCs transplantation may help to accelerate oral ulcer healing, possibly through the induction of angiogenesis by VEGF together with increased intracellular matrix formation as detected by increased collagen gene expression. This body of work has provided evidence supporting clinical applications of adipose-derived cells in safety and efficacy trials as an alternative for bone marrow mesenchymal stem cells in oral ulcer healing.

Keywords: Bone Marrow; Mesenchymal Stem Cells; Oral Ulcer.

Dept. of Neuro Surgery

170. Long-Term Outcome of Surgical Management of Adult Chiari I Malformation

Nasser M. F. El-Ghandour

Neurosurgical Review, (2012) IF: 2.036

Chiari I malformation continues to inspire controversy. Debate still exists about surgical options. the aim of this study is to evaluate the long-term outcome of posterior fossa decompression procedure (PFD) in the treatment of adult Chiari I malformation, focusing on some factors or technical aspects which might influence the outcome.

Methods: Fourty six adult patients with Chiari I malformation operated by PFD are the subject of this study. the group included 21 males and 25 females, with mean age of 37.4 years. Patients were divided into two groups: group I (32 cases) with syringomyelia and group II (14 cases) without syringomyelia. Group I was further subdivided into 3 subgroups according to the surgical procedure adopted: group Ia (12 cases) operated by PFD only, group Ib (14 cases) operated by PFD with fourth ventricular shunt, and group Ic (6 cases) operated by PFD and syringosubarachnoid shunt. All cases included in group II were operated by PFD only.

Results: in group I, symptoms improved in 14 cases (43.8%) and stabilized in 18 cases (56.2%), whereas in group II, symptoms resolved in 10 cases (71.4%) and improved in 4 cases (28.6%). Postoperative magnetic resonance imaging showed that the syrinx was resolved in 21 cases (65.6%), improved in 7 cases (21.9%), unchanged in 4 cases (12.5%). Among the mean follow-up period (5.8 years), recurrence of symptoms occurred in 5 cases (10.9%), all of them are included in group I, and were reoperated again.

Conclusion: Posterior fossa decompression is recommended as the treatment of choice in adult Chiari I malformation with or without syringomyelia. the presence of syringomyelia predicts a less favourable response to surgical intervention. Syringosubarachnoid shunting didn't improve the long-term outcome either clinically or radiologically. Implanting a fourth ventricular shunt in cases of syringomyelia associated with adhesions at the foramen of Magendie decreases the long-term incidence of recurrence significantly. for recurrent cases, re-exploration of the initial posterior fossa decompression is recommended before any consideration is given for direct management of the syrinx.

Keywords: Adult; Chiari; Decompression; Posterior Fossa; Syringomyelia.

171. Endoscopic Treatment of Middle Cranial Fossa Arachnoid Cysts in Children

Nasser M. F. El-Ghandour

J Neurosurg Pediatrics, 9: 231-238 (2012) IF: 1.533

Arachnoid cysts located in the middle cranial fossa are common, comprising about half of all intracranial arachnoid cysts. the management of these cysts is challenging, and the optimal surgical treatment is controversial. This study evaluates the role of endoscopy in the treatment of middle cranial fossa arachnoid cysts (MCFACs) in children, focusing on some factors or technical aspects that might influence the outcome.

Methods: Thirty-two children with symptomatic MCFACs were the subject of this study. the group included 23 boys and 9 girls, with a mean age of 3.6 years. All patients underwent operations using a purely endoscopic cystocisternostomy procedure through a transtemporal approach.

Results: Significant clinical improvement occurred in 28 cases (87.5%). Postoperative MR imaging showed a reduction in cyst size in 23 cases (71.9%), whereas in the remaining 9 cases (28.1%), the cyst size was unchanged. Minor intraoperative bleeding occurred in 3 cases (9.4%), which stopped spontaneously without any postoperative sequelae. Ipsilateral subdural hygroma occurred in 2 cases (6.3%) and resolved within a few weeks without surgery; transient oculomotor palsy occurred in 1 case (3.1%). During follow-up (mean 4.6 years), 3 patients (9.4%) experienced recurrence of symptoms and an increase in cyst size. Interestingly, all 3 patients who had recurrence had also experienced intraoperative bleeding at initial surgery. at a second endoscopic procedure, the fenestration was found to be closed in all 3 patients.

Conclusions: Endoscopic cystocisternostomy is recommended in the treatment of MCFACs in children because it is simple, minimally invasive, and effective. It maintains the basic strategy of cyst fenestration into the basal cisterns without the invasiveness of open craniotomy. This procedure reduces operative and recovery times and is associated with low morbidity and mortality rates.

Keywords: Arachnoid Cyst; Endoscopy; Middle Cranial Fossa; Cystocisternostomy.

172. Minimal Access Direct Spondylolysis Repair Using a Pedicle Screw-Rod System: A Case Series

Mohamed Mohi Eldin

Journal of Medical Case Reports, 1-8 (2012) IF: 0.35

Introduction: Symptomatic spondylolysis is always challenging to treat because the pars defect causing the instability needs to be stabilized while segmental fusion needs to be avoided. Direct repair of the pars defect is ideal in cases of spondylolysis in which posterior decompression is not necessary. We report clinical results using segmental pedicle-screw-rod fixation with bone grafting in patients with symptomatic spondylolysis, a modification of a technique first reported by Tokuhashi and Matsuzaki in 1996. We also describe the surgical technique, assess the fusion and analyze the outcomes of patients.

Case presentation: at Cairo University Hospital, eight out of twelve Egyptian patients' acute pars fractures healed after conservative management of those, two young male patients underwent an operative procedure for chronic low back pain secondary to pars defect. Case one was a 25-year-old Egyptian man who presented with a one-year history of axial low back pain, not radiating to the lower limbs, after falling from height. Case two was a 29-year-old Egyptian man who presented with a one-year history of axial low back pain and a one-year history of mild claudication and infrequent radiation to the leg, never below the knee. Utilizing a standardized mini-access fluoroscopically-guided surgical protocol, fixation was established with two titanium pedicle screws place into both pedicles, at the same level as the pars defect, without violating the facet joint. the cleaned pars defect was grafted; a curved titanium rod was then passed under the base of the spinous process of the affected vertebra, bridging the loose fragment, and attached to the pedicle screw heads, to uplift the spinal process, followed by compression of the defect. the patients were discharged three days after the procedure, with successful fusion at one-year follow-up. No rod breakage or implant-related complications were reported.

Conclusions: Where there is no evidence of frank spondylolisthesis or displacement and pain does not radiate below the knee, we recommend direct repair of the pars interarticularis fracture, especially in young active adults. We describe a modified form of the Buck screw procedure with a minimally invasive, image-guided method of pars interarticularis fixation. the use of image guidance simplifies the otherwise difficult visualization required for pars interarticularis screw placement and allows minimal skin and muscle dissection, which may translate into a more rapid postoperative recovery.

Keywords: Minimal Access; Spondylolysis Repair; Pedicle Screw.

173. Catheter Virtual Lumbar Discectomy (the Epidural Cocktail for Lumbar Disc Prolapse) A New Minimally Invasive Alternative, on an Outpatient Bases Bases

Mohamed M. Mohi Eldin

The Internet Journal of Minimally Invasive Spinal Technology, 5 (1) (2012)

Objective: After six weeks of conservative management of lumbar disc disease patients, some will require additional treatment. Surgeries available do not offer clear, safe options free of complications in all cases. Moreover, some reported postoperative complications are more difficult to treat than the original illness. I am offering a new modified intervention for such cases. the purpose of this study was to assess the safety and effectiveness of epidural cocktail instillation for lumbar degenerative diseases, confirm its indications, and evaluate the clinical outcomes of patients.

Material and Methods: A total of 60 patients underwent epidural cocktail injection for lumbar degenerative indications by one neurological spine surgeon. the mean follow-up was 12 months. Follow-up images were taken to assess results and determine any injection-related issues.

Results: the most prevalent diagnoses were disc bulges, especially in young patients. the mean severity of LBP decreased by 80% at 3-month follow-up, and 60% at 1-year follow-up. the results of pain relief were best at early follow-up visits. Forty two patients (70%) stated that they would undergo this procedure again.

Conclusion: Despite the supposed argument, the current study provides evidence that immediate pain relief and increase in function can be provided by the epidural cocktail injections with a very low rate of morbidity. the follow-up images showed, in

addition to the clinical improvement, definite structural decrease of the disc bulges in a way as if discectomy was done without any surgical or interventional intervention. That is why the name catheter virtual discectomy (C VD) was introduced.

Keywords: Lumbar Disc; Epidural Drugs; Degenerative Spine; Catheter; Cocktail; Minimally Invasive.

174. Catheter Virtual Lumbar Discectomy (Early and 5 Year Follow-Up Results) A New Minimally Invasive Alternative, on an Outpatient Bases

Mohamed Mohi Eldin

The Open Spine Journal, 4 (17): 16-27 (2012)

After at least six weeks of conservative management of lumbar disc disease patients, some will require additional treatment. Surgeries available do not offer clear, safe options free of complications in all cases. Moreover, some reported postoperative complications are more difficult to treat than the original illness. I am offering a new modified intervention for such cases.

Objectives: the purpose of this study was to assess the safety and effectiveness of epidural cocktail instillation for lumbar degenerative diseases, confirm its indications, and evaluate the clinical outcomes of patients.

Study Design: Patients were prospectively selected to receive catheter virtual discectomy (CVD) in a prospective, randomized, blinded, crossover cohort study.

Setting: the enrollment took place from January 2007 through February 2012 in major tertiary Hospitals in Cairo, including Cairo University Hospitals, Naser Institute Hospital, and Al-Helal Hospital.

Material & Methods: A total of 100 patients underwent epidural cocktail injections for lumbar degenerative indications by one neurological spine surgeon. the mean follow-up was 48 months.

Outcomes Assessment: After one week, one month and every 3 month thereafter, for the first year, then yearly, the pain was assessed using visual analogue score (VAS). Any decrease in VAS of more than two scales was defined as a significant VAS improvement. Patients were screened for any major or minor complications. the patients were then followed for three up to five years to determine the outcome of treatment. Follow-up images were taken to assess results and determine any injection-related issues.

Results the most prevalent diagnoses were disc bulges, especially in young ages. the mean severity of LBP decreased by 80% at 3-month follow-up, and 60% at 1-year follow-up. the results of pain relief were best at early follow-up visits.

Forty two patients (70%) stated that they would undergo this procedure again. the late 5 year follow up, if not superimposed by an additional new insult, and after exclusion of the 14 patients who did not complete the study, had a stationary clinical course.

Limitations: Fourteen patients did not complete the study, with reasons ranging from loss to follow-up (not returning) to pursuing exclusion criteria items. Eighty six patients were included in the final analysis.

Conclusion Despite the supposed argue, the current study provides evidence that immediate pain relief and increase in function can be provided by the epidural cocktail injections with a very low rate of morbidity. the follow-up images showed, in addition to the clinical improvement, definite structural decrease of the disc bulges in a way as if discectomy was done without any surgical or interventional intervention. That is why the name catheter virtual discectomy (CVD) was introduced.

Keywords: Lumbar disc; Epidural drugs; Degenerative spine; Catheter; Cocktail; Minimally invasive.

175. Coflex-Augmented Lumbar Microdecompression/ Microlaminectomy (Comparative Pilot Study)

Mohamed M. Mohi Eldin

The Internet Journal of Minimally Invasive Spinal Technology, 5 (1): (2012)

Objective: in this study, we selected patients older than 40 years of age with degenerative segmental stenosis & neurogenic claudication and analyzed whether the augmented lumbar microdecompression /microlaminectomy with the implantation of the coflex device is beneficial when compared with microdecompression / microlaminectomy surgery alone. **Methods**: Twenty five patients were treated with decompression augmented with the C oflex device, and 25 patients were treated with decompression alone during the same period. C linical results were assessed using the pre- and postoperative visual analogue scale (VAS) and activities of daily living (ADL). Patients satisfaction was assessed using the validated outcome measurement, the Oswestry Disability Index Questionnaire (ODI). Radiologic results were assessed according to pre-and postoperative heights and segmental angles at the treated level. **Results**: the mean age of the patients in the C oflex device group was 46.9 years, and the in the decompression group was 50 years. the mean pre- and postoperative VAS scores were 8.8 and 3.4, respectively, in interspinous devices group and 7.2 and 2.2 in the decompression group. Both groups of patients showed significant improvement in their VAS and ADL scores in comparison with their preoperative scores.

Radiologically, there were significant differences in disc heights and foraminal height between the two groups.

Conclusions: the C oflex dev ice was helpful in alleviating pain and improving ADL performance. It corrected segmental scoliosis and restricted extension. the addition of coflex device to the microdecompression procedure, improves the clinical and radiological outcomes much, in properly-selected cases.

Keywords: Interspinous Spacer; C Oflex Device; Lumbar Microlaminectomy; Spinal Stenosis; Neurogenic Intermittent Claudication.

176. Role of Endoscopy in Management of Hydrocephalus

Nasser M. F. El-Ghandour

Hydrocephalus, (2012)

A significant advance in the treatment of hydrocephalus has been the evolution of endoscopy. Hydrocephalus represents the classic indication for a neuroendoscopic approach. Currently, hydrocephalus remains the most frequent intracranial disease treated endoscopically. the success of neuroendoscopy in recent years has relied heavily on the success of endoscopic third ventriculostomy in the treatment of obstructive hydrocephalus. Endoscopic third ventriculostomy has become a well established procedure for the treatment of noncommunicationg hydrocephalus. in our experience, third ventriculostomy has been successful in controlling obstructive hydrocephalus caused by posterior fossa tumors, and it was much more superior than

shunting in terms of morbidity and incidence of procedure failure. the role of endoscopy in the treatment of complex hydrocephalus is indispensable. Our results of using endoscopy in the treatment of these cases are encouraging. Endoscopic cyst fenestration has led to avoiding or eliminating the need for shunts in some cases, simplification of complex shunts and reduction of shunt revision rate. It can be also used as an adjunct to shunting. It improves the results of shunting, and it plays a crucial role in shunt revision and retrieval of malfunctioning ventricular catheters. in addition to tumor biopsy sampling, the endoscope has been used for the resection of colloid cysts and other intraventricular lesions. Our results of using endoscopy in the treatment of these cases are excellent. the use of the neuroendoscope provides the unique ability to perform tumor resection, tumor biopsy sampling, restoration of obstructed cerebrospinal fluid pathways (e.g. foramen of Monro and aqueduct of Sylvius), performing endoscopic third ventriculostomy, and cerebrospinal fluid sampling, all can be done in a single procedure. Over the last few years, the field of neuroendoscopy has been expanded to treat a wide array of neurosurgically managed conditions. A seemingly limitless number of neurosurgical applications await the endoscope. in the future, one can expect routine use of the endoscope in the management of hydrocephalus, either as the primary surgery or as an adjunct. the continued evolution of this modality will rely on new technological advances, improved understanding of endoscopically demonstrated neurosurgical anatomy, discovery of new applications, and the training of neurosurgeons. Endoscopy is expected to become a routine procedure in modern neurosurgical practice and training. Pediatric neurosurgeons should acquire the needed skill in using endoscopy in order to manage one of the most common neurosurgical problems in children, which is hydrocephalus.

Dept. of Nuclear Medicine

177. ^{18}F-Fluorodeoxyglucose Positron Emission Tomography/ Computed Tomography Finds Answers in Cancer Patients with Increasing Tumor Markers and Negative or Equivocal Conventional Imaging Modalities

Shahenda S. Salema and Mohamed A. Shahin

Nucl Med Commun, 33 (3): 314-321 (2012) IF: 1.404

The increase in tumor markers with negative or equivocal conventional imaging modalities represents a serious dilemma in the follow-up of previously treated cancer patients. Positron emission tomography/computed tomography (PET/CT) has emerged as a useful tool in oncological imaging in staging and restaging of most cancers.

Objective: This study explored the potential role of 18F-fluorodeoxyglucose (FDG) PET/CT in the detection and localization of tumor recurrence in cancer patients with increasing serum tumor markers and negative or equivocal conventional imaging modalities.

Materials and methods: This prospective study was conducted on 105 previously diagnosed and treated cancer patients with different pathologies. All patients were referred for ^{18}F-FDG PET/CT scans because of increasing tumor markers with negative or equivocal conventional imaging modalities. All patients underwent whole-body ^{18}F-FDG PET/CT scans. the findings were confirmed by clinical and/or radiological follow-up of at least 12 months and histopathologically whenever possible.

Results: PET/CT detected recurrence and/or metastases in 90 patients (85.7%), including 17 recurrences, 50 metastases, and 23 recurrences and metastases. the sensitivity, specificity, positive predictive value, negative predictive value, and accuracy of PET/CT scans were 95.7, 100, 100, 73.3, and 96.2%, respectively. These parameters were 95, 100, 100, 69, and 95% for PET scans alone and were 91.5, 100, 100, 57.9, and 92.3% for CT scans alone.

Conclusion: ^{18}F-FDG PET/CT is a powerful diagnostic tool in restaging of cancer patients. in most cases, PET/CT provides accurate results and helps resolve the clinical dilemma encountered in oncological patients with increasing serum tumor markers and negative or equivocal findings in conventional imaging modalities.

Keywords: Conventional imaging modalities; Positron emission tomography; Computed tomography; Ttumor markers.

Dept. of Obstetrics and Gynecology

178. Is There A Place for Corifollitropin Alfa in IVF/ICSI Cycles? A Systematic Review and Meta-Analysis

Mahmoud Youssef, M Aboulfoutouh, El-Khyat W and F. Al-Inany

Fertility and Sterility, 97(4): 876-885 (2012) IF: 3.775

To evaluate the role of corifollitropin alfa, a newly developed weekly administrated long-acting recombinant FSH (rFSH), as an alternative for daily rFSH administration in women undergoing controlled ovarian stimulation in GnRH antagonist down-regulated in vitro fertilization (IVF)/intracytoplasmic sperm injection (ICSI) treatment cycles.

Design: Systematic review and meta-analysis of randomized controlled trials.

Setting: University and private centers.

Patient(S): Infertile women undergoing IVF/ICSI treatment.

Intervention (S): Comparing long-acting rFSH corifollitropin alfa versus standard daily administrated rFSH in GnRH antagonist IVF/ICSI cycles.

Main Outcome Measure(S): Ongoing pregnancy rate, live birth rate, clinical pregnancy rate, miscarriage rate, duration of stimulation, amount of FSH, number of retrieved oocytes, number of mature oocytes, number of embryos obtained, fertilization rate, ovarian hyperstimulation syndrome (OHSS) incidence, and adverse events. Searches (of literature through November 2011) were conducted in Medline, Embase, Science Direct, the Cochrane Library, and databases of abstracts.

Result(S): Four randomized trials involving 2,326 women were included. There was no evidence of a statistically significant difference in ongoing pregnancy rate for corifollitropin alfa versus rFSH. There was evidence of increased ovarian response and risk of OHSS in corifollitropin alfa.

Conclusion(S): in view of its equivalence and safety profile, corifollitropin alfa in combination with daily GnRH antagonist seems to be an alternative for daily rFSH injections in normal responder patients undergoing ovarian stimulation in IVF/ICSI treatment cycles

Keywords: Corifollitropin alfa; Gnrh antagonist.

179. Would Gestational Age and Presence of Brain Anomalies Affect Interobserver Reliability of Fetal Head Biometry? Using Off-Line Analysis of 3-D Dataset

Mona S. M. Salman, Hatem A. Mousa, Peter Twining, Nia W. Jones, David James, Mohamed Momtaz, Mona Aboulghar, Ahmad El-Sheikhah and George Bugg

Ultrasound Med Biol, 38 (1): 69-74 (2012) IF: 2.293

The objective was to assess interobserver reliability of fetal head biometry using archived three-dimensional (3-D) volumes and the impact of gestational age and presence of brain anomalies on examiners' performance. Seventy nine 3-D volume datasets of fetal head were examined: 27 were normal and 52 had brain abnormalities. Off-line analysis was done by three fetal medicine experts (E1, E2 and E2), all were blinded to history and patient details. Measurements of the biparietal diameter (BPD), head circumference (HC), lateral ventricle (Vp) and transcerebellar diameter (TCD) were compared between examiners and to two-dimensional (2-D) measurements. Comparisons were made at two gestational age groups (≤ 22 and >22 weeks) and in presence and absence of brain anomalies. the intraclass coefficient showed a significantly high level of measurement agreement between 3-D examiners and 2-D, with values >0.9 throughout ($p < 0.001$). Bias was evident between 3-D examiners. E2 produced smaller measurements. the mean percentage difference between this examiner and the other two in BPD, HC, Vp and TCD measurements was significant, of 1.6%, 1%, 4.9% and 1.8%, respectively. E1 measured statistically larger for HC and TCD. E3 measured significantly larger for only BPD. the presence of anomalies was of no influence on the 3-D examiners' performance except for E3 who showed bias in BPD measurements only in cases with brain anomalies. Unlike other examiners, bias of E2 was only seen at gestational age group ≤ 22 weeks. Limits of agreement in measurements between observers were narrow for all parameters but were widest for the Vp measurements, being ±23% of the mean difference. Despite the above bias, the actual mean difference between examiners was small and unlikely to be of any clinical significance. Off-line measurement of fetal head biometry using 3-D volumes is reliable. in our study, presence of brain anomalies was unlikely to influence the reproducibility of measurements. Gestational age seemed to be of an impact on examiners' bias. Among experts this bias may be of no clinical significance.

Keywords: 3-D Ultrasound; Off-Line analysis; Fetal head Biometry; Interobserver variation.

180. The Value of Fallopian Tube Sperm Perfusion in the Management of Mild–Moderate Male Factor Infertility

Waleed El-Khayat, Akmal El-Mazny, Nermeen Abou-Salem and Aly Moafy

Int. J. Gynecol Obstet, 117 (2012): 178-181 (2012) IF: 2.045

To investigate whether fallopian tube sperm perfusion (FSP) would improve pregnancy rates compared with standard intrauterine insemination (IUI) in cases ofmale factor infertility. Methods: in a randomized controlled trial at a university teaching hospital in Egypt, 120 couples with mild or moderate male factor infertility underwent a mild controlled ovarian stimulation protocol (clomiphene citrate plus human menopausal gonadotropin). Women were randomly allocated to group 1 (FSP via Foley catheter with 4 mL of inseminate) or group 2 (standard IUI with 0.5 mL of inseminate) (n=60 for both). the main outcome measure was clinical pregnancy rate. Results: There were no significant differences between the groups in terms of baseline clinical characteristics, semen parameters, or characteristics of stimulation cycles. the pregnancy rate was significantly higher in group 1 than in group 2 (16 [26.7%] vs 7 [11.7%]; Pb0.04). There was no significant difference in the incidence ofmultiple pregnancy, abortion, or ectopic pregnancy between the groups. Conclusion: Fallopian tube sperm perfusion is an effective technique in the management of mild–moderate male factor infertility and should, therefore, be considered before resorting to more sophisticated techniques of assisted reproduction.

Keywords: Fallopian tube sperm perfusion; Infertility; intrauterine insemination.

181. The Use of Vaginal Natural Progesterone for Prevention of Preterm Birth in Ivf/Icsi Pregnancies

Mona M Aboulghar, Mohamed A Aboulghar, Yahia M Amin, Hisham G Al-Inany, Ragaa T Mansour and Gamal I Serour

Reprod Biomed Online, 25: 133-138 (2012) IF: 2.042

The aim of this study was to evaluate the effect of vaginal natural progesterone on the prevention of preterm birth in IVF/ intracytoplasmic sperm injection (ICSI) pregnancies. A single-centre prospective placebo-controlled randomized study was performed. A total of 313 IVF/ICSI pregnant patients were randomized into two groups for either treatment with daily 400 mg vaginal natural progesterone or placebo, starting from mid-trimester up to 37 weeks or delivery. Amongst the patients, there were 215 singleton and 91 twin pregnancies. There was no significant difference in risk of preterm birth among all patients (OR 0.672, 95% CI 0.42–1.0. There was a significantly lower preterm birth rate in singleton pregnancies in the natural progesterone arm (OR 0.53, 95% CI 0.28–0.97) and no significant difference between both arms in twin pregnancies (OR 0.735, 95% CI 0.36–2). in conclusion, the administration of 400 mg vaginal natural progesterone from mid trimester reduced the incidence of preterm birth in singleton.

Keywords: Ivf/Icsi; Preterm birth; Singleton pregnancy; Twin pregnancy; Vaginal natural progesterone.

182. Does A Single Endometrial Biopsy Regimen (S-Ebr) Improve Icsi Outcome in Patients with Repeated Implantation Failure? A Randomised Controlled Trial

Amal Shohayeb and Waleed El-Khayat

Eur J. Obstet Gyn R B, 164: 176-179 (2012) IF: 1.974

Objective: to evaluate the effect of a single endometrial biopsy regimen (S-EBR) in the cycle preceding the ICSI cycle in patients with repeated implantation failure. Study design: This was a prospective randomized controlled trial which included two-hundred infertile women with a history of repeated implantation failure. the subjects were randomly divided into two groups. Group A subjects underwent hysteroscopy and endometrial scraping by Novak curette in the cycle preceding the ICSI cycle,

while group B subjects underwent hysteroscopy without endometrial scraping. Implantation rate, clinical pregnancy rate, abortion rate and live birth rate were compared between both groups.
Results: the number of retrieved oocytes in group A was 11.6 3 and in group B was 11.6 2.8 with no statistically significant difference (p = 0.787). There were statistically significant differences regarding the implantation rate, the clinical pregnancy rate and live birth rate. the implantation rate in group A was 12% while in group B it was 7% (p = 0.015), the clinical pregnancy rate was 32% in group A while it was only 18% in group B (p = 0.034) and the live birth rate was 28% in group A while it was 14% in group B (p = 0.024).
Conclusions: the single endometrial biopsy regimen (S-EBR) performed during hysteroscopy has statistically significant higher implantation rate, clinical pregnancy rate and live birth rate than hysteroscopy without endometrial scraping.

Keywords: Implantation failure; Endometrial scraping; Repeated implantation failure.

183. Can Dopamine Agonist at A Low Dose Reduce Ovarian Hyperstimulation Syndrome in Women at Risk Undergoing Icsi Treatment Cycles? A Randomized Controlled Study

Amany Shaltout, Amal Shohyab and Mohamed A.F.M. Youssef

European Journal of Obstetrics & Gynecology and Reproductive Biology, 165: 254-258 (2012) IF: 1.974

Dopamine agonists were proposed as a preventive strategy for severe ovarian. the aim of this randomized controlled study is to evaluate the role of dopamine agonist at lower doses (0.25 mg) as a preventive strategy of severe hyperstimulation syndrome (OHSS) in women at high risk in IVF/ICSI treatment cycles.
Study design: Two hundred women at risk to develop OHSS undergoing IVF/ICSI treatment cycle were included; the study group received 0.25 mg of cabergoline for 8 days from the day of HCG administration versus no treatment for the prevention of OHSS. Reduction of the incidence OHSS was the primary outcome.
Results: the overall incidence of OHSS was significantly reduced, almost 50%, in cabergoline group in comparison with control group (RR: 0.5, 95% CI: 0.29–0.83), with absolute risk reduction following cabergoline administration 11% (ARR: 0.11, 95% CI: 1.09–20.91). the corresponding number needed to treat (NNT) was 9.
Conclusion: Prophylactic treatment with the dopamine agonist, cabergoline, at lower doses (0.25 mg) reduces the incidence of OHSS in women at high risk undergoing IVF/ICSI treatment.

Keywords: Dopamine agonist; Ohss; RCT; Cabergoline.

184. Placental Protein 13 as an Early Predictor in Egyptian Patients with Preeclampsia, Correlation to Risk and Association with Outcome

Walid S. El Sherbiny, Ahmed Soliman and Aml S. Nasr

J Invest Med, 60 (5): 818-822 (2012) IF: 1.964

Introduction: Placental protein 13 (PP13) is a protein expressed only in the placenta. It is involved in gluing the placenta to the uterus and remodeling the maternal arteries to expand them. Women who subsequently develop preterm preeclampsia have low first trimester maternal serum.
Aim of Work: the aim of this work was to assess the value of PP13 as an early marker for screening of preeclampsia and to correlate it with the PP13 messenger RNA (mRNA).
Patients and Methods: as a part of the Antenatal Screening Project, 100 women in the first trimester of pregnancy were selected and subdivided into 2 groups: 50 women who developed preeclampsia in their third trimester (patient group) and 50 women who completed normal uncomplicated pregnancy until full term (control group). Placental protein 13 level was measured using the commercially available enzymelinked immunosorbent assay kit and PP13 mRNA was tested using reverse transcription polymerase chain reaction.
Results: the maternal serum PP13 level in the preeclamptic group was (157.9 T 45.5 pg/mL), which is significantly lower than that of the control group (225.3 T 67.3 pg/mL), with highly statistically significant difference (P G 0.0001). the frequency of maternal PP13 mRNA expression was lower in the preeclamptic group (28%) compared to that in the control group (76%), with highly statistically significant difference (P G 0.0001).
Conclusion: Combined serum PP13 level assay and PP13 mRNA expression are reliable markers for early detection of preeclampsia, and we recommend doing it as a routine investigation during the first trimester.

Keywords: Preeclampsia; Pp13; Enzyme-Linked Immunosorbent Assay; Mrna; Rt-Pcr.

185. Metalloprotease (ADAM12-S) as a Predictor of Preeclampsia: Correlation with Severity, Maternal Complications, Fetal Outcome, and Doppler Parameters

Walid El-Sherbiny, Ahmed Nasr and Aml Soliman

Hypertension in Pregnancy, : 1-9 (2012) IF: 1.694

Objectives: to compare the first trimesteric serum level of ADAM12-S in women who developed mild and severe preeclampsia and in healthy gravidas and to correlate these changes with the severity of the disease, maternal complications, fetal outcome, and Doppler cerebroplacental ratio (CPR). Design. Comparative prospective observational study. Setting: University hospital.
Methods: Serum samples were obtained from 414 women in their first trimester, of which 259 women completed their pregnancy without complications and 155 women developed preeclampsia later in their pregnancies. All were subjected to history taking, examination, laboratory investigations, obstetric ultrasound, and Doppler CPR.
Results: ADAM12-S was significantly decreased in patients with severe and in mild preeclampsia compared with the controls. Moreover, there was strong negative correlation with disseminated intravascular coagulopathy (DIC) and HELLP syndrome, cesarean delivery, postpartum hemorrhage, and neonatal intensive care unit admission. ADAM12-S had medium negative correlation with systolic blood pressure and diastolic blood pressure, accidental hemorrhage, cesarean hysterectomy, prematurity, and low birth weight. in addition, it had a weak negative correlation with intracranial hemorrhage, residual hypertension, and intrauterine fetal death. ADAM12-S had strong positive correlation with CPR. There were no correlation with

eclampsia,intrauterine growth retardation, acute pulmonary edema, and acute renal failure.

Conclusion: ADAM12-S is significantly decreased in severe and mild preeclampsia and is correlated with CPR, severity of preeclampsia, maternal complications, and fetal outcome. It is recommended to measure ADAM12-S in the first trimester to predict maternal complications and fetal outcome in pregnancies complicated by preeclampsia.

Keywords: Preeclampsia; Adam12-S; Elisa; Doppler cerebroplacental ratio; Perinatal morbidity and mortality; Hellp; Intrauterine growth restriction.

186. Laparoscopic and Laparotomic Approaches for Endometrial Cancer Treatment: A Comprehensive Review

Ingolf Juhasz-Böss, Hisham Haggag, Sascha Baum, Stephanie Kerl, Achim Rody and Erich Solomayer

Arch Gynecol Obstet, (2012) IF: 1.277

Objective: Endometrial cancer (EC) is the most common gynecological malignancy in the developed world, particularly among postmenopausal women. Endoscopic surgery is gaining more popularity among surgeons as a safe and feasible option for treatment of endometrial carcinoma, providing the possibility of adequate lymph node excision.

Methods: A comprehensive review. Results the advantages of laparoscopy prevail over laparotomy and authors report lower peri-operative complication rates, less blood loss, lower transfusion rates, and shorter hospital stay, as well as a better quality of life (QoL) after laparoscopic surgery, in contrast to conventional abdominal surgery. This was confirmed by a metaanalysis of four randomized controlled studies. This is also true for obese risky patients to whom laparotomies carry indolent side effects. in addition, with more training and experience this procedure would be even more feasible and safer.

Conclusions: Because of the increasing importance of economic efficiency in health care, the endoscopic approach will continue to play a more important role in the future treatment of EC providing a better treatment option for the coming patients. as a promising therapeutical option, it should be offered to all patients with an early stage EC.

Keywords: Endometrial cancer therapy; Laparoscopy; Peri-Operative complication; Oncological safety.

187. The Significance of Progesterone/Estradiol Ratio on the Day of HCG on the ICSI Outcome in Both Obese and Non-Obese Patients

Amal A. Shohaye, Mostafa M. Ragaee and Waleed El-Khayat

Middle East Fertility Society Journal, 17: 236-242 (2012)

Aim: to study the significance of progesterone/estradiol (P/E2) ratio on the outcome of ICSI cycles and if this relation would differ in obese vs. non-obese patients.

Method: Retrospective analysis of the results of 143 patients undergoing their first ICSI cycles at kaser-elaini ART unit. All the included patients had long protocol for ovarian stimulation. P/E2 ratio was correlated to the pregnancy rate in all the included patients then they were classified into two groups according to their BMI into two groups. Group 1: with BMI> 30 and group 2: with BMI< 30. Different outcome parameters were compared between the two groups including peak estradiol and progesterone levels on day of HCG, P/E2 ratio in addition to the number of retrieved oocytes, their maturity, fertilization rate and the pregnancy rate.

Results: Although elevated levels of peak estradiol in non-obese patients 4.43 ± 5.02 compared to obese patients 3.27 ± 2.24 and the difference is statistically significant (p value = 0.017) in addition to significant difference in levels of peak progesterone which is elevated in non-obese patients 1.64 ±1.38 compared to obese patients 1.41 ±1.1 (p value = 0.038). However, no significant difference was detected between the two groups regarding the progesterone/estradiol ratio (p value = 0.989), also no statistical difference was found regarding the number of retrieved oocytes, number of mature oocytes and the rate of fertilization in each group. the pregnancy rate showed near values in each group 36.9% in non-obese patients' vs. 29.4% in obese patients which was not found to be statistically significant between the two groups.

Conclusion: P/E2 ratio cannot be used as a reliable predictor for pregnancy rate, and this is not different between obese and non-obese patients. No significant difference was found between obese and non-obese patients regarding peak progesterone, estradiol level on day of neither HCG nor other ICSI outcomes including number of retrieved oocytes, fertilization rate or the pregnancy rate.

Keywords: P/E2 Ratio; Icsi; Bmi.

188. Conversion of Icsi Cycles to Iui in Poor Responders to Controlled Ovarian Hyperstimulation

Amal Shohieb, Mona Mostafa and Waleed El-Khayat

Middle East Fertility Society Journal, 17: 42-46 (2012)

Aim: Comparison between the results of the oocyte retrieval technique and the conversion to the intra-uterine insemination (IUI) technique in cases with poor ovarian response to the controlled ovarian hyperstimulation (COH) procedure.

Patients and methods: It is a retrospective observational study in women with poor ovarian response to COH which is defined as estradiol (E2) peak level <1000 pg/mL or with 64 follicles which are P14 mm in diameter. Four hundred and sixteen cases were reported as poor responders in 2 IVF centers since December 2007 to July 2010. One hundred and fifty two cases of them proceeded to the oocyte retrieval procedure. These cases were assigned as group (A). Sixty eight cases converted to IUI and were assigned as group (B). One hundred and ninety six cases canceled their cycles. These cases were not included in the current study. Our data were collected from the databases of two in Vitro Fertilization (IVF) centers and analyzed retrospectively to compare the results of the different applied techniques in the studied groups. the main measured outcome parameters were the clinical pregnancy rate and the live birth rate.

Results: the group of cases proceeded to the oocyte retrieval procedure had a higher basal Follicle Stimulating Hormone (FSH) level, needed a longer duration of stimulation with higher Human Menopausal Gonadotropin (HMG) doses and had higher E2 peak levels. the clinical pregnancy rates and the live birth rates were higher in the group proceeded to the oocyte retrieval than the group converted to IUI but the difference was not statistically significant.

Conclusion: as the pregnancy rates difference between both groups was not statistically significant the conversion to IUI could be considered a useful substitute to the oocyte retrieval

procedure in the poor responder cases. However, to adopt this conclusion, further confirmation in other prospective studies with larger sample size is a must.

Keywords: Controlled ovarian hyperstimulation; Icsi; Ntrauterine insemination; Oocyte retrieval; Poor response.

189. Does the Addition of LH Activity to FSH Make Gonadotrophins More Superior? A Systematic Review and Meta-Analysis

Hesham Al-Inany, Amr Wahba, Hatem Abu Hashim, Human Fatemi and Ahmed Abousetta

Evidence Based Women's Health Journal, : 113-120 (2012)

The contribution of luteinizing hormone (LH) activity to follicle-stimulating hormone(FSH) in ovarian stimulation in improving the outcome of IVF/intracytoplasmic sperm injection (ICSI) has been an area of major debate.
Objective to systematically locate, review, and analyze the best available evidence on the value of additional LH activity in ovarian stimulation in IVF and/or ICSI irrespective of the source of LH.
Design Systematic review of properly randomized trials comparing FSH only [as recombinant FSH (recFSH)] vs. LH-containing protocols (derived either from a urinary source or developed by recombinant technology) in women undergoing IVF and/or ICSI with desensitization achieved either by long GnRH agonist or GnRH antagonist protocols.
A meticulous search was carried out using electronic databases and hand searches of the literature.
Results Thirty-one trials were identified. Only nine trials reported on live birth rate and ovarian hyperstimulation (OHSS) rates. Pooling of the trials showed that the live birth rate did not show a statistically significant difference [recFSH (304/1120; 27.14%) vs. FSH/LH (324/1110; 29.19%) (P = 0.29; odds ratio (OR)=0.90, 95% confidence interval (CI) = 0.75–1.09)]. OHSS rates also did not show a significant difference [recFSH (34/1888; 1.80%) vs. FSH/LH (29/1843; 1.57%) (P= 0.79; OR= 1.08, 95% CI = 0.63–1.83)]. the clinical pregnancy rate significantly favored additional LH activity [(recFSH (748/2758; 27.1%) vs. FSH/LH (838/2772; 30.2%), P= 0.008; OR = 0.85 95% CI =0.76–0.96)], whereas FSH-only protocols (recFSH) yielded a higher number of retrieved oocytes compared with LH-containing protocols (FSH/LH)(P = 0.002; mean difference = 1.25, 95% CI= 0.48–2.02).
Conclusion LH activity is not paramount in ovarian stimulation.

Keywords: Lh; Gonadotrophins; Ivf; Icsi; Infertility.

190. Atosiban Versus Nifedipine for Prevention of Preterm Labor: Systematic Review and Meta-Analysis using Direct and Indirect Evidence

Ahmed Abou-Settaa, Hesham G. Al-Inany and Jaro Wex

Evidence Based Women's Health Journal, 2: 27-46 (2012)

The objective of our study was to review the efficacy and safety of atosiban and nifedipine using both direct and indirect evidence. Data sources We performed electronic (e.g. MEDLINE, EMBASE, CENTRAL) and hand searches (last search August 2011) to identify randomized controlled trials (RCTs) comparing atosiban with nifedipine directly, or either drug with betamimetics, in order to allow for indirect analyses.
Methods of study selection: A review was conducted of published, unpublished, and ongoing RCTs comparing atosiban with nifedipine directly, or either drug with betamimetics, in pregnant women under threat of preterm labor. Tabulation, integration, and results Data were extracted for an intention-to-treat analysis, and meta-analysis was performed using a random-effects model. Data from direct and indirect evidence were combined using inverse variance. Four RCTs were identified that compared atosiban with nifedipine, with another 31 RCTs comparing either drug with betamimetics. Data for the majority of outcomes were unavailable. When evidence was available, the meta-analysis showed that there were no clear differences in the significant effects exerted by the two drugs. All safety outcomes were in favor of atosiban: there were lower incidences of adverse drug reactions, flushing, gastrointestinal tract upset, hypotension, palpitation, and tachycardia in women prescribed atosiban, with the exception of nausea, which was more frequent in such women. on combining direct and indirect evidence, we also identified a higher probability of treatment failure within 7 days of initiation of treatment (birth or alternative tocolytic therapy) and higher incidence of headache in women receiving nifedipine.
Conclusion: Both drugs seem to have a similar positive effect on prolongation of pregnancy; however, the safety profile of atosiban is considerably better.

Keywords: Atosiban; Betamimetics; Meta-analysis; Nifedipine; Preterm labor; Tocolysis.

191. Peer Review of Manuscripts Submitted to Medical Journals

Mohamed Abdelfattah Mahmoud Youssef

Middle East Fertility Society Journal, 17: 139-143 (2012)

Journal editors usually rely on the views of independent experts (peers) in making decisions on an author's scholarly work, research, or ideas and material submitted for publication. the peer reviewer serves the editor by substantiating the quality of the manuscript, and serves the author by giving constructive criticism (1). the use of peers to assess the work of fellow scientists goes back at least 200–300 years (2–6). 2. Is peer review an important process? This peer review process first and foremost serves as a powerful quality control mechanism to make sure only sound, good and interesting research to the international community is published, helps to determine novelty or originality, credibility, and clarity of data and to measure the quality of the manuscript and also provides feedback to authors, so they can improve papers that will go on to be published. in other words, the prevention of work that does not meet the standards of the field from being published, is the reviewers' responsibility. Consequently, it encourages authors to meet the accepted standards of their discipline and prevents the publication of irrelevant or faked data.

Keywords: Peer Review.

192. Can the International Index of Erectile Function Be Used as a Diagnostic Tool to the Severity of Vasculogenic Erectile Dysfunction

Abdelrahman Elnashar, Amr M. Gadallah, Alaa A. Abdelaal, Islam F. Soliman and Mohamed A.F.M. Youssef

*Middle East Fertility Society Journa*l, 17: 101-104 (2012)

The objective of this observational study was to compare the International Index of Erectile Function (IIEF-5) with penile

duplex in the diagnosis of vasculogenic erectile dysfunction severity. 150 subjects complaining of erectile dysfunction for >6months have been divided into two groups according to their response to intracavernous injection (ICI) test; 50 patients who showed good response(E4) and one hundred patients who showed poor response(E4) up to maximum dose of 1cc Quadmix with abnormal penile duplex. the results of the duplex are correlated to the IIEF-5 score of the patients.
Findings ,There is statistically significant difference between mean value of IIEF-5 in both good and poor responders (P-value=0.0000), significant difference between mean value of (age, duration, PSV, EDV, diameter of artery after injection, percent of increase in arterial diameters and RI) between the good and poor responders. There was no evidence of statistically significant difference between mean value of IIEF-5 in both arteriogenic and venogenic subgroups of poor responders group. There was neither evidence of statistically significant correlations between IIEF-5 and penile duplex results in both good and poor responders groups, nor between IIEF-5 and penile duplex results in arteriogenic and venogenic and combined subgroups.
Conclusion IIEF-5 might not be a suitable diagnostic tool of the severity of vascular affection in ED.

Keywords: Penile Duplex; Ici; Quadmix.

193. Hanging Attitudes in Obstetrics and Gynecology - How Evidence Based Medicine is Changing Our Practice?

Amr Hassan Hussein EL Said Wahba

Evidence Based Medicine -Closer to Patients or Scientists, (2012)

The aim of this chapter is to explore different aspects of evidence based medicine including background on its development, motives towards changing our attitudes in practice and how can evidence be extracted. the chapter will also highlight the major role of evidence based medicine in changing attitudes towards evidence based practice which ensures safety and efficiency of the health service provided, in the field of obstetrics and gynecology; a domain that has greatly participated in the establishment of evidence based medicine and evidence based practice. Many examples on how evidence based medicine has changed attitudes in practice will be displayed to demonstrate and emphasize this role.

194. Evidence-Based Medicine: Essentials of Research Design and Methodology

Akmal El-Mazny

Book Published by Lap Lambert Academic Publishing, (2012)

Evidence-based medicine (EBM) aims to apply the best available research evidence to clinical decision making, and to assess the strength of evidence of the risks and benefits of treatments and diagnostic tests. in this era of evidence-based health care, both clinicians and researchers need to master EBM in order to critically appraise the medical research articles, and to judge the implications and reliability of reported results. the purposes of this book are to discuss how to practice EBM, the various types of research designs, the basic process by which research studies are conducted, and the research-related considerations such as scientific writing and research publishing. This book also offers a fundamental knowledge of conducting and interpreting biomedical statistics, and guides researchers through the processes of data management. Finally, I hope that this book will provide the "know how" for all researchers and health-care professionals.

195. Hypertension in Pregnancy: Classification and Management

Akmal El-Mazny

Book Published by Lap Lambert Academic Publishing, (2012)

Hypertensive states during pregnancy include preeclampsia/ eclampsia, gestational hypertension, chronic hypertension, and preeclampsia superimposed on chronic hypertension. Preeclampsia is a medical condition where hypertension appears in pregnancy, usually in the second or third trimester, in association with significant proteinuria. Eclampsia is a new onset of seizures in a woman with preeclampsia. Accurate preeclampsia statistics are difficult. The single most significant risk factor is having had preeclampsia in a previous pregnancy. There are many different mechanisms for preeclampsia that may cause endothelial dysfunction; with subsequent damage to the maternal endothelium, kidneys and liver. Preeclampsia is a major cause of maternal and perinatal mortality and morbidity worldwide. Intensive monitoring in women who are at increased risk may lower the incidence of adverse outcome. A pregnancy complicated by severe preeclampsia, especially at term, should be terminated; otherwise, expectant management may be indicated.

196. Gynecologic Endoscopy: Indications and Techniques

Akmal El-Mazny

Book Published by Lap Lambert Academic Publishing, (2012)

The human dream was to see the interior of the body. Endoscopy is a procedure that uses a narrow telescope to view the interior of a viscus or a preformed space. in gynecology, endoscopes are used most often to diagnose conditions by direct visualization of the peritoneal cavity (laparoscopy) or the inside of the uterus through a transcervical approach (hysteroscopy). Endoscopy has affected every area of gynecology, from diagnosis to therapy, from reproductive medicine to urogynecology and oncology. Laparoscopy is indicated mainly for the investigation of pelvic pain and subfertility, as well as the diagnosis of endometriosis and adhesions. Hysteroscopy is considered the gold standard technique for the assessment of the uterine cavity. It is essential that the surgeon fully understands all aspects of the use of endoscopic equipment; and should be aware of the potential risks of the procedure and their management.

Dept. of Ophthalmology

197. Electrophysiological Assessment of Optic Nerve and Retinal Functions Following Intravitreal Injection of Bevacizumab (Avastin)

Tamer A. Macky and Mohamed M. Mahgoub

J. Ocul Pharmacol Th., (2012) IF: 1.509

Purpose: to evaluate the retinal and optic nerve functions of bevacizumab when injected intravitreal in human eyes using

electrophysiological tests; Electroretinogram (ERG) and Visual Evoked Potentials (VEP).
Methods: Fifty five eyes of 55 patients with choroidal neovascular membrane (CNV) who were prepared for intravitreal injections of 1.25mg bevacizumab underwent baseline ERG and VEP in both eyes before, and at 1 and 6 weeks after the intravitreal injections.
Results: Mean age was 50 years ranging from 24-62 years, with 32 AMD and 23 myopic patients. Mean baseline best corrected visual acuity (BCVA) was 4/60, and mean final BCVA at 6 weeks was 6/60. There was no statistically significant reduction of the post-injection (1 and 6 weeks) ERG A and B waves or the VEP waves' amplitudes and latency, or in the contralateral non-injected eyes. on the contrary, there were statistically significant improvement at 1 and 6 weeks in the photopic B-wave of the injected and fellow eyes (p values=0.046, and <0.001).
Conclusions: Intravitreal bevacizumab did not appear to be toxic to the retina or the optic nerve at a concentration of 1.25 mg.

198. Clinical Findings, Orbital Imaging, and Intraoperative Findings in Patients with Isolated Inferior Rectus Muscle Paresis or Underaction

Ahmed Awadein

J. Aapos, 16:345-349: 345-349 (2012) IF: 1.028

Purpose: to present the clinical findings, orbital imaging, and intraoperative findings of patients with inferior rectus muscle underaction and to determine whether specific findings can help discern the underlying cause.
Methods: A retrospective observational study was performed on patients presenting with isolated inferior rectus muscle underaction between January 2007 and October 2011. Patient history, ocular motility, fundus torsion, Lancaster red–green plots, and radiographic findings were
analyzed. for patients who had surgery, intraoperative findings also were considered.
Results: A total of 28 patients with inferior rectus muscle underaction were identified. of these, 13 (46%) presented with inferior rectus muscle underaction after orbital trauma; 25 (89%) showed no increase in hypertropia .4D on head tilt to either side. Fundus intorsion was present in all patients. of 15 patients evaluated by Lancaster red–green testing, 12 (80%) showed subjective intorsion. Twenty patients underwent orbital imaging via computed tomography or magnetic resonance imaging, and the results in 8 (40%) revealed obvious changes in the inferior rectus muscle. Nineteen patients underwent surgery; intraoperatively, the muscle appeared grossly normal in 8 patients (42%) and showed posterior muscle slippage in 4 (26%). Less common findings included stretched scar formation, flap tear, missing tissue, extensive muscle adhesions, or inability to identify the muscle.
Conclusions: Clinical findings in patients with inferior rectus muscle underaction are not sufficiently different to identify the cause, and orbital imaging identified a specific abnormality in only 40% of cases.

Keywords: Inferior Rectus; Trauma; Intorsion; Flap Tear; Orbital Imaging.

199. Comparison of Superior Oblique Suture Spacers and Superior Oblique Silicone Band Expanders

Ahmed Awadein and Ghada Gawdat

J. Aapos, 16:131-135: 131-135 (2012) IF: 1.028

Purpose: to compare suture spacers with silicone band expanders in superior oblique-weakening surgery.
Methods: We retrospectively reviewed the charts of consecutive patients who had superior oblique weakening with either suture spacers or silicone expanders and had been followed for a minimum follow-up of 6 months. the ductions, versions, and the degree of fundus torsion were analyzed in all patients before and after surgery. in addition, surgery time and postoperative complications were analyzed.
Results: the record review identified 25 patients, of whom 13 had been treated with superior oblique muscle suture spacers and 12 with superior oblique muscle silicone expanders. Both groups showed improved ductions and versions. in patients with Brown syndrome, complete normalization of superior oblique muscle overaction occurred in 67% of patients who had suture spacers and 67% of patients who had silicone expanders. in patients with A-pattern strabismus, normal function of the superior oblique muscle occurred in 75% of patients with suture spacers and 67% of patients with silicone expanders. Surgery time was significantly less in patients who had suture spacers. Severe orbital inflammation occurred in 1 patient around the silicone band and was managed by removal of the implant.
Conclusions: Both suture spacers and silicone expanders improved the comitance of versions and normalized superior oblique muscle function. Longer surgery time and more severe inflammatory reaction are possible drawbacks of silicone expanders.

Keywords: Superior oblique; Brown syndrome; Super oblique overaction; A-Pattern; Suture spacers; Silicone band expanders.

200. Selective Laser Trabeculoplasty in Egyptian Patients with Primary Open Angle Glaucoma

Ahmed M. Abdelrahman and Rasha M. Eltanamly

Middle East African Journal of Ophthalmology, 19 (3): 299-303 (2012)

Purpose: to assess the change in intraocular pressure(IOP) in Egyptian patients after selective laser trabeculoplasty(SLT) as a primary or adjunctive treatment for primary open angle glaucoma (POAG).
Materials and Methods: one hundred and six eyes with POAG were enrolled in this prospective study. Patients were divided into two groups: recently diagnosed cases with no preoperative medications (group 1) and patients with confirmed glaucoma on medical therapy (group 2).all patients underwent360 SLT.patients were evaluated to 18 months postoperatively. DAta were analysed on postoperative changes in IOP,number of medications and complications.A p value less than 0.05 was statistically significant.
Results: A statistically significant drop in IOP occurred, from 19.55 +/-4.8 mmHg preoperatively, to 16.03 +/-2.8 mmHg postoperatively (p< 0.001). Each group had a statistically significant drop in IOP (p<0.001). There was a statistically significant decrease in the number of medications in the number of medications in group 2 from 2.25 +/-0.97 medications

preoperatively to 1.0 +/- 1.3 medications postoperatively (p=0.004). No serious complications occurred for the duration of the study.
Conclusion: SLT can be safely and effectively used as primary or adjunctive therapy for the treatment of POAG.

Keywords: Laser; Primary open angle glaucoma; Selective laser trabeculoplasty;Treatment.

201. First Experience with Bak-Free Travoprost 0.004% in Topical Glaucoma Medication

Ahmed Salah Gado and Tamer Ahmed Macky

Clinical Ophthalmology, 6: 1-4 (2012)

Benzalkonium chloride (BAK)-free travoprost 0.004% (Travatan Z(®), Alcon Laboratories, Inc, Fort Worth, TX) is a new formulation that was developed with the aim of creating a formulation of travoprost that would maintain the intraocular pressure (IOP)-lowering efficacy and have an improved overall safety profile, particularly improved ocular surface tolerability.
Methods: Thirty newly diagnosed primary open-angle glaucoma (POAG) patients were treated with BAK-free travoprost 0.004%. IOP readings were recorded at baseline before initiating treatment, at 4-6 weeks, and after 12 weeks of starting treatment. in addition, patient demographics, subjective symptoms (ie, burning, foreign-body sensation, itching, and stinging), and objective clinical signs such as conjunctival hyperemia were collected. Subjective symptoms were evaluated using a four-point scale ranging from "no symptoms," "mild symptoms," "moderate symptoms" to "severe symptoms." as for clinical signs, severity of conjunctival hyperemia was evaluated. All other adverse events were collected.
Results: BAK-free travoprost 0.004% provided an IOP decrease in all patients, with an overall mean of 28.3 ± 2.1 mmHg at baseline to a mean of 18.7 ± 1.6 mmHg at 4-6 weeks, and a mean of 18.4 ± 1.4 mmHg after 12 weeks. Both subjective symptoms and objective clinical signs were very few after treatment.
Conclusion: the results demonstrate that BAK-free travoprost 0.004% is an effective, well tolerated, and safe medication in POAG patients

Keywords: Primary open-angle glaucoma; Poag; Benzalkonium chloride; Travatan.

202. Dysfunctional Tear Film, Etiology, Diagnosis, and Treatment in Oculoplastic Surgery

Mark R. Levine and Essam El Toukhy

Smith AndNesi'S Ophthalmic Plastic and Reconstructive Surgery (Third Edition) (2012)

Dry eye syndrome (DES) is a complex and very prevalentdisease which affects more than ten million people, primarily women, in the United States alone. When you consider the number of contact lens wearers, computer users, patients who live and/or work in dirty environments, and patients with autoimmune disease, the number is certainly higher.

Dept. of Orthopaedic

203. Arthroscopic Inferior Capsular Shift Long-Term Follow-Up

Basim A. Fleega and Mohamed T. El Shewy.

the American Journal of Sports Medicine, 40 (5): 1126-1132 (2012) IF: 3.792

Neer and Foster's open inferior capsular shift to treat acquired cases of anteroinferior shoulder instability due to an overstretched and redundant capsule is described with good results. Recently, new arthroscopic techniques were described to manage this problem.
Purpose: to assess the results of a new arthroscopic reinforced inferior capsular shift technique based on Neer and Foster's open inferior capsular shift.
Study Design: Case series; Level of evidence, 4.
Methods: This new technique of arthroscopic inferior capsular shift was used to treat 108 patients with anteroinferior shoulder instability due to capsular redundancy as confirmed clinically and during arthroscopy. It reduces the size of the redundant capsular pouch and reinforces the thinned-out capsule. Intraoperatively, patients with associated labral tears (n = 25) and patients with open rotator intervals (n = 8) were excluded, and only 75 patients with pure capsular redundancy were included in this study.
Results: Patients were followed for a minimum of 7 years. All 75 patients had patulous and redundant capsules. Three patients (4.0%) had a redislocation after a significant trauma. the range of motion preoperatively was 168.16 7.5in forward elevation, 64.76 7.9in external rotation, and T5.0 6 T0.8 in internal rotation. Postoperatively, it was 167.26 5.8in forward elevation, 59.956 4.9in external rotation, and T7.1 6 T1.0 in internal rotation. the American Shoulder and Elbow Surgeons (ASES) (70.76 to 97.53; P\.001), Constant (90.02 to 99.24; P\.001), and University of California, Los Angeles (UCLA) (21.97 to 33.84; P.001) scores demonstrated significant improvement postoperatively.
Conclusion: This novel technique of arthroscopic capsular shift addresses the problem of capsular redundancy present in many cases of anteroinferior shoulder instability. It tries to achieve a capsular shift based on the principles of Neer. the long-term results are very good.

Keywords: Arthroscopy; Shoulder; Dislocation; Capsular shift.

204. Tendon Transfer for Treatment of Internal Rotation Contracture of the Shoulder in Brachialplexus Birth Palsy

H. Abdel-Ghani, K. A. Hamdy, N. Basha and Y. N. Tarraf

Journal of Hand Surgery (European Volume), 37 (8): 781-786 (2012) IF: 1.171

We retrospectively analyzed 63 patients with internal rotation contracture of the shoulder secondary to brachial plexus birth palsy treated with subscapularis sliding combined with either latissimus dorsi transfer (group A: n = 18) or latissimus dorsi and teres major transfer (group B: n = 45) to the rotator cuff. the mean age at time of surgery was 43 months (SD 21 months; range 8 months to 9 years). We used a modification of the Gilbert shoulder grading system for assessment. All patients showed statistically significant improvement of active shoulder abduction and external rotation without significant differences between the two groups. Significant external rotation contracture of the

shoulder (inability to touch the abdomen with the wrist extended) occurred in 42 of 63 patients, and there was a greater incidence of external rotation contracture in group B. We conclude that surgery should be restricted to latissimus dorsi transfer without teres major transfer to avoid external rotation contractures. Our modification of the Gilbert grading system appears to be valid and applicable.

Keywords: Shoulder internal rotation contracture; Brachial plexus birth palsy; Latissimus; Teres major transfer.

Dept. of Pathology

205. Virtual Microscopy Beyond the Pyramids, Applications of Wsi in Cairo University for E-Education & Telepathology

Essam Ayada and Yukako Yagib

Anal Cell Pathol, 34: 1-3 (2012) IF: 0.917

Telepathology, the practice of pathology at a long distance, has advanced continuously since 1986. the progress of telepathology passed through four stages: Static, Dynamic, Hybrid & Whole Slide Imaging. Materials and methods: A pilot project between the Italian Hospital in Cairo & the Civico Hospital in Palermo was completed successfully, applying the static & dynamic techniques of telepathology. This project began in 2003 and continued till now. in 2004, centers in Venice, London and Pittsburgh participated actively in our project. Results: Over eight years we consulted on many problematic pathological cases with specialized pathological centers in Italy, UK & USA. in addition to the highly specialized scientific value, we saved a lot of time and money. Conclusion: We concluded from our experience that telepathology is a very useful and applicable tool for additional consulting on difficult pathological cases especially for emerging countries. in view of this success we have already established our Digital Telepathology Unit in Cairo University, using the WSI technique in teaching which was greatly successful and encouraged us to build a huge digital pathology library which will expand our telepathology & E-learning programs to cover staff and students in Egypt and Eastern Mediterranean.

Keywords: Telepathology; Egypt; Cairo university; Italy; Ucdmc; Wsi; E-Learning.

Dept. of Pediatrics

206. Exome Sequencing Can Improve Diagnosis and Alter Patient Management

Tracy J. Dixon-Salazar, Jennifer L. Silhavy, Nitin Udpa, Jana Schroth, Stephanie Bielas, Ashleigh E. Schaffer,Jesus Olvera, Vineet Bafna, Maha S. Zaki, Ghada H. Abdel-Salam, Lobna A. Mansour, Laila Selim, Sawsan Abdel-Hadi, Naima Marzouk Tawfeg Ben-Omran, Nouriya A. Al-Saana, F. Müjgan Sonmez, Figen Celep, Matloob Azam, Kiley J. Hill, Adrienne Collazo, Ali G. Fenstermaker, Gaia Novarino, Naiara Akizu, Kiran V. Garimella, Carrie Sougnez, Carsten Russ, Stacey B. Gabriel and Joseph G. Gleeson

Science Translational Medicine, 4 (138): 1-12 (2012) IF: 7.804

The translation of "next-generation" sequencing directly to the clinic is still being assessed but has the potential for genetic diseases to reduce costs, advance accuracy, and point to unsuspected yet treatable conditions. To study its capability in the clinic, we performed whole-exome sequencing in 118 probands with a diagnosis of a pediatric-onset neurodevelopmental disease in which most known causes had been excluded. Twenty-two genes not previously identified as disease-causing were identified in this study (19% of cohort), further establishing exome sequencing as a useful tool for gene discovery. New genes identified included EXOC8 in Joubert syndrome and GFM2 in a patient with microcephaly, simplified gyral pattern, and insulin-dependent diabetes. Exome sequencing uncovered 10 probands (8% of cohort) with mutations in genes known to cause a disease different from the initial diagnosis. Upon further medical evaluation, these mutations were found to account for each proband's disease, leading to a change in diagnosis, some of which led to changes in patient management. Our data provide proof of principle that genomic strategies are useful in clarifying diagnosis in a proportion of patients with neurodevelopmental disorders.

Keywords: Exome sequencing; Patient management.

207. Deferasirox for Up to 3 Years Leads to Continued Improvement of Myocardial T2* in Patients with β-Thalassemia Major

Dudley J. Pennell, John B. Porter, Maria Domenica Cappellini, Lee Lee Chan, Amal El-Beshlawy, Yesim Aydinok, Hishamshah Ibrahim, Chi-Kong Li, Vip Viprakasit, Mohsen S. Elalfy, Antonis Kattamis, Gillian Smith, Dany Habr, Gabor Domokos, Bernard Roubert and Ali Taher

Hematologica, 97 (6): 842-848 (2012) IF: 6.424

Prospective data on cardiac iron removal are limited beyond one year and longer-term studies are, therefore, important. Design and **Methods**: Seventy-one patients in the EPIC cardiac substudy elected to continue into the 3rd year, allowing cardiac iron removal to be analyzed over three years.

Results: Mean deferasirox dose during year 3 was 33.6±9.8 mg/kg per day. Myocardial T2*, assessed by cardiovascular magnetic resonance, significantly increased from 12.0 ms ±39.1% at baseline to 17.1 ms ±62.0% at end of study (P<0.001), corresponding to a decrease in cardiac iron concen- tration (based on ad hoc analysis of T2*) from 2.43±1.2 mg Fe/g dry weight (dw) at baseline to1.80 ±1.4 mg Fe/g dw at end of study (P<0.001). After three years, 68.1% of patients with base- line T2* 10 to <20 ms normalized (≥20 ms) and 50.0% of patients with baseline T2* >5 to <10 ms improved to 10 to <20 ms. There was no significant variation in left ventricular ejection frac- tion over the three years. No deaths occurred and the most common investigator-assessed drug-related adverse event in year 3 was increased serum creatinine (n=9, 12.7%).

Conclusions: Three years of deferasirox treatment along with a clinically manageable safety profile signifi-cantly reduced cardiac iron overload versus baseline and normalized T2* in 68.1% (32 of 47) of patients with T2* 10 to <20 ms.

Keywords: Deferasirox; Myocardial T2; Thalassemia major; Iron chelation.

208. High-Throughput Mutation Analysis in Patients with A Nephronophthisis-Associated Ciliopathy Applying Multiplexed Barcoded Array-Based Pcr Amplification and Next-Generation Sequencing and Next-Generation Sequencing

Jan Halbritter, Katrina Diaz, Moumita Chaki, Jonathan D Porath, Brendan Tarrier, Clementine Fu, Jamie L Innis, Susan J Allen, Robert H Lyons,Constantinos J Stefanidis, Heymut Omran, Neveen A Soliman and Edgar A Otto

Journal of Medical Genetics, 49: 756-767 (2012) IF: 6.365

Objective to identify disease-causing mutations within coding regions of 11 known NPHP genes (NPHP1- NPHP11) in a cohort of 192 patients diagnosed with a nephronophthisis-associated ciliopathy, at low cost.

Methods Mutation analysis was carried out using PCR-based 48.48 Access Array microfluidic technology (Fluidigm) with consecutive next-generation sequencing. We applied a 10-fold primer multiplexing approach allowing PCR-based amplification of 475 amplicons (251 exons) for 48 DNA samples simultaneously. After four rounds of amplification followed by indexing all of 192 patient-derived products with different barcodes in a subsequent PCR, 2×100 paired-end sequencing was performed on one lane of a HiSeq2000 instrument (Illumina). Bioinformatics analysis was performed using 'CLC Genomics Workbench' software. Potential mutations were confirmed by Sanger sequencing and shown to segregate.

Results Bioinformatics analysis revealed sufficient coverage of 30×for 168/192 (87.5%) DNA samples (median 449×) and of 234 out of 251 targeted coding exons (sensitivity: 93.2%). for proof-of-principle, we analysed 20 known mutations and identified 18 of them in the correct zygosity state (90%). Likewise, we identified pathogenic mutations in 34/192 patients (18%) and discovered 23 novel mutations in the genes NPHP3 (7), NPHP4 (3), IQCB1 (4), CEP290 (7), RPGRIP1L (1), and TMEM67 (1). Additionally, we found 40 different single heterozygous missense variants of unknown significance.

Conclusions We conclude that the combined approach of array-based multiplexed PCR-amplification on a Fluidigm Access Array platform followed by next-generation sequencing is highly cost-efficient and strongly facilitates diagnostic mutation analysis in broadly heterogeneous Mendelian disorders.

Keywords: Nephronophthisis; Ciliopathy; High-throughput mutation analysis; Next-generation sequencing.

209. β-Ureidopropionase Deficiency: Genotype, Phenotype and Protein Structural Consequences 1N 16 Patients

André B.P. van Kuilenburg, Doreen Dobritzsch, Judith Meijer, Michael Krumpel, Laila A. Selim, Mohamed S. Rashed, Birgit Assmann, Rutger Meinsma, Bernhard Lohkamp, Tetsuya Ito, Nico G.G.M. Abeling, Kayoko Saito, Kaoru Eto, Martin Smitka, Martin Engvall, Chunhua Zhang, Wang Xu, Lida Zoetekouw and Raoul C.M. Hennekam

Biochimica Et Biophysica Acta-Molecular Basis of Disease, 1822: 1096-1108 (2012) IF: 5.387

β-ureidopropionase is the third enzyme of the pyrimidine degradation pathway and Catalyse the conversion of N-carbamyl-β- Aminobutyric acid to β-alanine and β -aminoisobutyric acid, Ammonia and Co_2. to date, only five genetically confirmed patients with a complete β-ureidopropionase deficiency have been reported. Here, we report on the clinical, biochemical, and molecular findings of 11 newly identified β-ureidopropionase deficient patients as well as well as the analysis of the mutations in three dimensional framework. Patients presented mainly with neurological abnormalities (intellectual disabilities, seizures, abnormal tonus regulations, microcephaly and malformations on neuroimaging) and markedly elevated levels of N- carbamyl- β-Alanine and Ncarbamyl- β - amino isobutyric acid in urine and plasma. Analysis of UPB1 encoding β -ureidopropionase, showed 6 Novel Missence mutations and one novel splice- site mutation. Hererozygote expression of of the 6 mutant enzymes in Eshreshia coli showed that all mutations yielded mutant Bureidopropionase proteins with significant decrease activity. Analysis of homology model of human β- ureidopropionase generated using the crystal structure of the enzyme from drosophila melanogaster indicated that the point mutations p.G235R, p.R236WAND p.S264R lead to aminoacid exchanges in the active site and therefore affect substrate binding and catalysis.. the mutation L13S, R326Q, and T359M resulted most likely in folding defects and oligomer assembly impairement. Two mutations were identified in several unrelated β-ureidopropionase patients, indicating that β-ureidopropionase deficiency may be more common than anticipated.

Keywords: β-Ureidopropionase; Up β1; Neurological abnormalities; Homology modeling; Functional and structural protein analysis.

210. Molecular Mechanisms of Ursodeoxycholic Acid Toxicity & Side Effects: Ursodeoxycholic Acid Freezes Regeneration & Induces Hibernation Mode

Magd A. Kotb

Int. J. Mol. Sci., 13: 8882-8882 (2012) IF: 2.598

Ursodeoxycholic acid (UDCA) is a steroid bile acid approved for primary biliary cirrhosis (PBC). UDCA is reported to have "hepato-protective properties". Yet, UDCA has "unanticipated" toxicity, pronounced by more than double number of deaths, and eligibility for liver transplantation compared to the control group in 28 mg/kg/day in primary sclerosing cholangitis, necessitating trial halt in North America. UDCA is associated with increase in hepatocellular carcinoma in PBC especially when it fails to achieve biochemical response (10 and 15 years incidence of 9% and 20% respectively). "Unanticipated" UDCA toxicity includes hepatitis, pruritus, cholangitis, ascites, vanishing bile duct syndrome, liver cell failure, death, severe watery diarrhea, pneumonia, dysuria, immune-suppression, mutagenic effects and withdrawal syndrome upon sudden halt. UDCA inhibits DNA repair, co-enzyme A, cyclic AMP, p53, phagocytosis, and inhibits induction of nitric oxide synthatase. It is genotoxic, exerts aneugenic activity, and arrests apoptosis even after cellular phosphatidylserine externalization. UDCA toxicity is related to its interference with drug detoxification, being hydrophilic and anti-apoptotic, has a long half-life, has transcriptional mutational abilities, down-regulates cellular functions, has a very narrow difference between the recommended (13 mg/kg/day) and toxic dose (28 mg/kg/day), and it typically transforms into lithocholic acid that induces DNA strand breakage, it is uniquely co-mutagenic, and promotes cell transformation. UDCA beyond PBC is unjustified.

Keywords: Ursodeoxycholic acid; Primary biliary cirrhosis; Neonatal cholestasis; Vanishing bile duct syndrome; Toxicity; Side effects; Primary sclerosing cholangitis; Psc; Extrahepatic biliary atresia; Neonatal hepatitis.

211. Rare Coagulation Disorders: A Study of 70 Cases in the Egyptian Population

M. Abdelwahab and N. Khaddah

Haemophilia, : 1-3 (2012) IF: 2.597

Few Rare Bleeding Disorders registries (RBD) exist, none in Africa.Rare coagulation defects, such as factor (F)I , FII, FV, FV +FVIII, FVII, FX, FXI and FXIII deficiencies are transmitted as autosomal recessive traits with more prevalence in Muslim countries where consanguineous marriages are frequent. However, epidemiological information on the real distribution of these deficiencies is still limited and consequently when compared with the common bleeding disorders, most of these rare disorders are not well characterized clinically and do not have well-established treatment strategies.the clinical data of some big rare coagulation disorders registries such as the Italian, Iranian and North American have been reported.

Only several small scale studies have been reported in Africa with none to date in the Egyptian population.Aim to compare the clinical spectrum of some RBD in Egypt with other published data and to see if they behave differently in a population with many historical ethnic variations.Methods A local hospital registry was started and patients were studied over 3 years.

Assessment included detailed bleeding history, diagnostic events, clinical manifestations and treatment recieved. FX and FV deficiencies were classified according to the North American Rare Bleeding Disorders Registry and FVII deficiency according to the severity scoring system.

Treatment was provided according to UKHCDO guidelines in view of resource constraint and patient's previous bleeding history. Results We report the full clinical data of 70 patients, 61.4 % males and 38.6% females with the vast majority the offspring of consanguineous marriages.

Afibrinogenemia is the most prevalent constituting 28.6% of the rare coagulation disorders, FV deficiency(10 homozygous and one heterozygous) constituting 15.7% and 20% of patients had FVII deficiency (6 severe, 7mild and 1moderate) .FX deficiency (11homozygous and 2heterozygous) was reported in 18.6% and FXIII deficiency in 11.4%. One patient had combined FV and FVIII deficiency and 3had FII deficiency.

Intracranial hemorrhage occurred in 10% of our study group, joint bleeds in 12.9%, muscle bleeds in 7.1%, oral bleeding in 48.6%, epistaxis in 50%, bleeding per rectum in 17.1%, hematuria in 7.1%, post-circumcision bleeding in 14.3% and umbilical bleeding in 30% mainly in afibrinogenemia patients. Most patients received on demand therapy usually on initial presentation and 5 are on prophylactic therapy. Conclusion the prevalence of these rare coagulation deficiencies and bleeding symptoms is different in the Egyptian population than elsewhere and so further studies including bigger numbers of patients could serve as an important source for clinicians in different parts of the world in view of rarity of these conditions.

Keywords: Rare; Coagulation; Egypt.

212. Growth Charts of Down Syndrome in Egypt: A Study of 434 Children 0-36 Months of Age

Hanan H. Afifi, Mona S. Aglan, Moushira E. Zaki, Manal M. Thomas and Angie M.S. Tosson

Am J Med Genet A, : 2647-2655 (2012) IF: 2.391

The aim of the study was to construct new reference growth charts for weight, length and head circumference of Egyptian children with Down syndrome (DS) from birth to 36 months of age. These specific charts may be used by health professionals involved in medical, physical and developmental care of Egyptian children with Down syndrome. the study included 434 children with non-disjunction trisomy 21, 0–36 months of age.

They were 54.4% males and 45.6% females and had no concomitant chronic disease (congenital heart disease, gastrointestinal malformations, hypothyroidism, and blood disorders). Overall, 1,955 observations were performed of weight, length and head circumference. the data for each sex were divided into 37 different age groups with 1-month intervals. All measurements were taken using standardized equipments and following the international recommendations. Values were statistically analyzed and growth curves were plotted as means and standard deviations (SD). Growth measurements evaluated in all age groups of both sexes were significantly lower than those of the controls. There was a gender difference in weight, length and head circumference, males with Down syndrome had higher values. In conclusion, we suggest that these new growth charts specific for Down syndrome children may be used in optimizing direct Egyptian DS children care and in providing anticipatory guidance in term of optimal physical growth and early detection of hidden factors affecting growth.

Keywords: Down syndrome; Growth charts; Egyptians; Anthropometry.

213. Sustained Viral Response and Hematological Adverse Events During Chronic Hepatitis C Infection Treatment

Mortada El-Shabrawi and Mona Isa

Hepatitis Monthly, 12 (2): 122-123 (2012) IF: 2.19

Hepatitis C virus (HCV), as a causative agent of chronic liver disease, has infected approximately 175 million people (almost 3%) of the world's population; and 3 to 4 million new cases are added to this figure annually (1).

Chronic HCV infection may progress to severe outcomes in the form of cirrhosis and hepatocellular carcinoma (HCC) (2). Currently, there is no effective HCV vaccine on the horizon due to a lack of a susceptible small animal model, an absence of neutralizing antibodies, and a high degree of viral genomic diversity and mutagenicity; therefore, successful treatment of HCV infection is very much needed. A few years ago, the standard of care (SOC) for chronic HCV infection consisted of subcutaneous injection of conventional Interferon (IFN)-?-2, 3 times per week, plus an oral, daily dose of Ribavirin (RBV) for 24 to 48 weeks (2, 3). This therapy is not ideal because of a very low sustained virologic response [(SVR) i.e., HCV RNA undetectable 6 months after the end of treatment].

Keywords: Infection; Hepatitis C; Treatment.

214. Saliva and Sera Iga and Igg in Egyptian Giardia-Infected Children

Naglaa Saad M. El-Gebaly, Eman Fawzy Halawa, Hanaa M. Ezzat Moussa, Ibrahim Rabia and Maha Abu-Zekry

Parasitol Res, 111: 571-575 (2012) IF: 2.149

Giardiasis is a gastrointestinal infection of wide distribution that is more prevalent in childhood. Easy and rapid diagnosis of giardiasis is essential for reduction of this infection. This cross-sectional study included 62 children in which collection of saliva, stool and serum samples was performed. an enzyme-linked immunosorbent assay (ELISA) technique was evaluated to detect IgA and IgG responses in both saliva and serum samples. Twenty-two children were positive for Giardia duodenalis infection by direct examination of faecal specimens, 20 non-infected and 20 infected with other parasites. Salivary and serum IgA and IgG responses against G. duodenalis infection were significantly higher in Giardia parasitized than non-Giardia parasitized children ($p<0.001$). This concludes that specific salivary IgA may serve as a diagnostic tool and specific salivary IgG as a screening tool in monitoring the exposure of various populations to Giardia duodenalis. the advantage of salivary assays over serum immunoglobulin assay is being easy and noninvasive in sampling technique which is important especially for young children.

Keywords: Saliva; Immunoglobin; Giardia.

215. Prenatal Diagnosis for Thalassaemia in Egypt: what Changed Parents' Attitude?

A. El-Beshlawy, A. El-Shekha, M. Momtaz, F. Said, M. Hamdy, O. Osman, S. Meshaal, T. Gafaar and M. Petrou

Prenatal Diag, 32 (8): 777-782 (2012) IF: 2.106

To present the current status of the prenatal diagnosis services and results from the largest thalassaemia center in Egypt treating 3000 patients. Traditionally, prenatal diagnosis has not been successful in reducing the births of affected children in Egypt, because the majority of women undergoing prenatal diagnosis continued to have affected pregnancies.

Methods: Seventy-one pregnant mothers at risk for β-thalassaemia underwent prenatal diagnosis by chorionic villus sampling (n=57) or amniocentesis (n=14) between 11 to 14 weeks of gestation. Molecular characterization of fetal DNA by reverse dot blot hybridization and polymerase chain reaction-amplification refractory mutation system techniques was conducted in all cases.

Results: Twenty-four women (33.8%) were found to have affected fetuses; 100% of these women opted to terminate the pregnancy. the change in attitude towards termination of pregnancy was related to in-depth counseling of the religious aspects towards prenatal diagnosis and termination of pregnancy. Forty-eight women (66.2%) with normal or carrier fetuses for β-thal requested human leukocyte antigen typing of the fetal material to determine if the fetus was a human leukocyte antigen match for their existing thalassaemic siblings.

Conclusion: This study demonstrates that prenatal diagnosis is feasible and acceptable in Egypt, a Muslim country, provided an in-depth discussion, which also addresses the religious considerations of prevention, is held with the couples.

Keywords: Thassemia; Prenatal diagnosis; Parents attitude; Egypt.

216. Mutation Analysis of *NpHS1* in a Worldwide Cohort of Congenital Nephrotic Syndrome Patients

Bugsu Ovunc, Shazia Ashraf, Virginia Vega-Warner, Detlef Bockenhauer, Neveen A. Soliman Elshakhs and g Mark Joseph

Nephron Clinical Practice, 120: 139-146 (2012) IF: 2.038

Congenital nephrotic syndrome (CNS) is defined as nephrotic syndrome that manifests within the first 3 months of life. Mutations in the NPHS1 gene encoding nephrin, are a major cause for CNS. Currently, more than 173 different mutations of NPHS1 have been published as causing CNS, affecting most exons. Methods: We performed mutation analysis of NPHS1 in a worldwide cohort of 20 families (23 children) with CNS. All 29 exons of the NPHS1 gene were examined using direct sequencing. New mutations were confirmed by demonstrating their absence in 96 healthy control individuals. Results: We detected disease-causing mutations in 9 of 20 families (45%). Seven of the families showed a homozygous mutation, while two were compound heterozygous. in another 2 families, single heterozygous NPHS1 mutations were detected. Out of 10 different mutations discovered, 3 were novel, consisting of 1 splice site mutation and 2 missense mutations. Conclusion: Our data demonstrate that the spectrum of NPHS1 mutations is still expanding, involving new exons, in patients from a diverse ethnic background.

Keywords: Mutation analysis; Congenital nephrotic syndrome; Nphs1.

217. Orphan Kidney Diseases

Neveen A. Soliman

Nephron Clinical Practice, 120: 194-199 (2012) IF: 2.038

Rare kidney diseases are a unique subset of renal disorders that are often termed ‘orphan’ as a result of a multitude of reasons: the small number of patients with the consequent lack of well-defined natural history and course of many of these diseases, limited awareness among the medical community, and finally the significant cost of developing novel therapeutics which makes many of these diseases unattractive targets for the pharmaceutical industry.

Nevertheless, in the last decade the study and clinical management of rare kidney disease patients has been the focus of many investigative efforts. in recent years we have witnessed an enormous expansion in our knowledge of the genetic nature of a number of rare kidney diseases. Moreover, the investigation of the role of genetic disruption aiming at elucidating the pathogenesis of different and complex renal diseases has helped not only in understanding the disease states, but has also given us fundamental insights into a number of kidney developmental and physiological functions.

This article will give an overview of orphan renal diseases with particular emphasis on monogenic kidney diseases. It will also focus on the classification of these diseases while highlighting a prominent example in each category.

Keywords: Rare diseases; Monogenic kidney diseases; Molecular genetics; Nephronophthisis; Ciliopathies; Genetic nephrotic syndrome; Podocytopathies.

218. Glutathione S-Transferase Gene Polymorphisms in Neonatal Hyperbilirubinemia

Eman Abdel Ghany Abdel Ghany, Nouran Fahmy Hussain and Shahira Kamal Anis Botros

Journal of Investigative Medicine, 60: 18-22 (2012) IF: 1.964

Background: Glutathione S-transferases (GSTs) are a polymorphic superfamily of multifunctional enzymes known to play an important role in the detoxification of several substances. GSTM1 and GSTT1 are present in the liver in relatively high levels. Polymorphisms of the GSTM1 and GSTT1 genes may affect ligandin functions that are important in bilirubin transportation.
Objective: the aim of this study was to investigate the role of GSTM1 and GSTT1 gene polymorphisms as risk factors for neonatal jaundice.
Methods: This study was conducted on 72 neonates with pathologic hyperbilirubinemia (bilirubin 915 mg/dL) and 112 neonates with bilirubin level less than 15 mg/dL as a control group. GSTM1 and GSTT1 genotypes were assessed by multiplex polymerase chain reaction.
Results: GSTM1 null genotype was significantly higher in the patient compared with control groups (P = 0.005; odds ratio = 2.43; 95% confidence interval, 1.29Y4.55) and was significantly associated with higher bilirubin levels compared with the wild genotype (P G 0.001). There was no statistically significant difference in the GSTT1 genotypes between the patient and the control groups. in the patient group, total bilirubin levels did not vary significantly among the null and wild GSTT1 genotypes (P = 0.108).
Conclusions: Neonates with the GSTM1 null genotype are at high risk to develop pathologic hyperbilirubinemia and may have higher bilirubin levels

Keywords: Bilirubin; Glutathione S-Transferases (Gsts); Neonates; Jaundice.

219. Echocardiogram Done Early in Neonatal Sepsis: what Does it Add?

Rania H. Tomerak, Ayman A. El-Badawy, Gehan Hussein, Nermin R.M. Kamel and Abdel Rahman A. Razak

J. Invest Med, 680-684 (2012) IF: 1.964

Background: One of the major organs affected in neonatal sepsis is the heart. Echocardiogram provides real-time information on the cardiovascular performance rather than dependence on the clinical signs alone, which might lead to misjudgment. Aim of the Work: to assess left ventricular (LV) functions in septic neonates early after admission using transthoracic color Doppler Echocardiography.
Patients and Methods: Echocardiography was done to 30 septic and 30 nonseptic newborns who were divided among 4 groups (septic full-term, 14; septic preterm, 16; nonseptic full-term, 21; and nonseptic preterm, 9). Comparisons were made among the 4 groups using analysis of variance and post hoc test regarding the systolic function (using ejection fraction and fractional shortening), the diastolic function (using the early patrial peak/atrial peak flow velocity ratio), and the global LV function (using myocardial performance index).
Results: the E-wave and the early peak flow velocity/atrial peak flow velocity ratio were significantly lower in the septic neonates, whether full-term or premature, compared to their corresponding age groups in the nonseptic newborns, suggesting LV diastolic dysfunction (P G 0.001 and P G 0.014, respectively). No difference was found in the diastolic function between the full-term and the preterm neonates whether lying within the septic group or in the nonseptic group. Myocardial performance index was significantly higher in the septic neonates who died than in the survivors (P G 0.001).
Conclusion: Neonatal sepsis is associated with LVdiastolic dysfunction.

Keywords: Echocardiogram, Neonatal sepsis, E/A Ratio, Myocardial performance index, Diastolic dysfunction.

220. Double-Blind, Placebo-Controlled Trial on the Effect of Piracetam on Breath-Holding Spells

Happy Sawires and Osama Botrous

Eur J Pediatr, 171 (7): 1063-1067 (2012) IF: 1.879

Breath-holding spells (BHS) are apparently frightening events occurring in otherwise healthy children. the aim of this study was to evaluate the efficacy of piracetam in the treatment of breath-holding spells. Forty patients with BHS (who were classified into two groups) were involved in a double-blinded placebo-controlled prospective study. Piracetam was given to group Awhile group B received placebo. Patients were followed monthly for a total period of 4 months. the numbers of attacks/month before and monthly after treatment were documented, and the overall number of attacks/month after treatment was calculated in both groups. the median number of attacks/month before treatment in the two groups was 5.5 and 5, respectively, while after the first month of treatment, it was 2 and 5, respectively. the median overall number of attacks/ month after treatment in both groups was 1 and 5, respectively.
There was a significant decline of number of attacks after piracetam treatment compared to placebo (p value<0.001). There were no reported side effects of the piracetam throughout the study period. in conclusion, piracetam is a safe and effective drug for the treatment of breath-holding spells in children.

Keywords: Piracetam; Breath-holding Spells; Pallid spells.

221. Sleep of Children Living in Institutional Care Facilities

Maha K. Abou-Khadra

Sleep and Breathing, 16 (3): 887-894 (2012) IF: 1.839

Purpose to describe sleep patterns and problems among institutionalized children. Methods in this cross-sectional study, the caregivers of 118 children, aged 4–12 years from six institutional care facilities completed the Children's Sleep Habits Questionnaire (CSHQ). Results the mean (±SD) of night bedtime was 21:05±2:52, mean morning wake-up time was 06:58±0:31, mean total sleep duration was 10±1.1 h, and mean night-sleep duration was 9.5±0.9 h. the percentage of children who took a daytime nap was 34.7% (n=41) and the mean duration of nap was 0.5±0.7 h. the most frequently reported sleep problems were bedtime resistance, daytime sleepiness and night awakening. Children with bedtime at or after 9 PM, night-sleep duration less than 10 h and daytime napping had more disturbed sleep. Conclusions Sleep problems are common among this sample of institutionalized children.

Keywords: Institutionalized children; Sleep patterns; Sleep.

222. Renal Involvement in Childhood-Onset Systemic Lupus Erythematosus in Egypt

Samia Salah-El-Din Mahmoud, Hafez Mahmoud Bazaraa, Hala Mohamed Lotfy and Doaa Mohamed Abd-El-Aziz

Rheumatol Int., (2012) IF: 1.431

Lupus nephritis has been described as the most serious complication of systemic lupus erythematosus (SLE) and the strongest predictor of poor outcome. While the incidence of childhood SLE is relatively low, renal involvement appears to be more common and more severe in childhood SLE. This study aims to characterize the features and outcome of renal involvement in childhood-onset SLE based on a study of 100 Egyptian patients (mean age at diagnosis 10.1 years, range 2-17 years). Initial data regarding disease manifestations and biopsy findings were reviewed. Disease activity was assessed using SLEDAI scores. Follow-up data (mean duration 6 years) were noted regarding specific treatment, response, complications and renal survival. Initial renal involvement was present in 78 patients, including 66 with hypertension and 23 with renal impairment. Pathologically, class IV nephropathy was found in 18 patients, class V in 9 and low-grade lesions (class II-III) in 49. Twenty patients required follow-up biopsy, and all transformations were observed. SLEDAI scores significantly decreased from initial (mean ± SD) of 21.4 ± 7.3 to 13.4 ± 7.8, in association with response to therapy ($P < 0.0001$). Poor response was associated with initial hypertension and renal impairment but not with initial SLEDAI score or pathological class. the projected renal survival was 82.4 and 64.7% 5 and 10 years from diagnosis. Early renal involvement in childhood SLE is common, serious and requires proper evaluation and management.

Keywords: Childhood; Lupus nephritis; Renal survival; Sledai score.

223. Study of Serum Hepcidin in Hereditary Hemolytic Anemias

Amal El Beshlawy, Ibrahim Alaraby, Mohamed S.E.M. Abdel Kader, Dina H. Ahmed and Hossam E.M. Abdelrahman

Hemoglobin, 36 (6): 555-570 (2012) IF: 1.304

The aim of this study was to assess the level of hepcidin in hereditary chronic hemolytic anemias and to correlate the serum hepcidin levels to the need for blood transfusions (frequency of blood transfusions and the serum ferritin level). Seventy pediatric patients with hereditary chronic hemolytic anemias, attending to hematology clinics of Cairo University and Misr University for Science and Technology (MUST) hospitals were the subjects of this study [53 patients with ?-thalassemia major (β-TM), 10 patients with ?-thalassemia intermedia (β-TI), four patients with congenital spherocytosis and three patients with sickle cell disease) (38 males and 32 females)]; their ages ranged from 1-14 years. Seventy normal children, age- and sex-matched, served as the control group. the results of this study revealed decreased hepcidin levels in patients (all types of congenital chronic hemolytic anemias) [mean ± SD (standard deviation) = 22.9 ± 6.0] compared to controls (mean ± SD = 132.4 ± 16.7) with highly significant statistical difference in between. Hepcidin levels were higher in β-TM patients (mean ± SD = 23.7 ± 6.2) than in β-TI patients (mean ± SD = 21.8 ± 4.0), the hepcidin to ferritin ratio was significantly less than one. in β-TM patients, the mean ± SD was 0.03 ± 0.004, and in β-TI patients the mean ± SD = 0.025 ± 0.002, with highly significant statistical difference with hepcidin-to-ferritin ratios in controls being mean ± SD = 2.3 ± 0.7. Hepcidin and hepcidin/ferritin ratios can be used as good markers of hemolytic anemia and iron overload as they have very high sensitivity (99.0 and 99.0%, respectively) and very high specificity (98.0 and 97.0%, respectively). Our findings highlight the potential usefulness of hepcidin measurement as a diagnostic tool. the use of hepcidin as an adjuvant therapy with iron chelators is important as it has a vital role in combating hemosidrosis.

Keywords: Hereditary hemolytic anemias; Hepcidin; thalassemia; Iron overload disorders.

224. Isolation of Poliovirus Shedding Following Vaccination in Children with Antibody Deficiency Disorders

Nermeen M. Galal, Laila Bassiouny, Eman Nasr and Naglaa Abdelmeguid

Journal of Infection in Developing Countries, 6 (12): 881-885 (2012) IF: 1.191

Prolonged excretion of oral poliovirus may occur in primary antibody deficiency states. Those patients who persistently excrete the virus may pose the risk of aiding viral propagation in the environment. This study therefore aimed to identify the potential for prolonged poliovirus shedding by patients diagnosed with congenital antibody deficiency disorders.

Methodology: A cohort of children later diagnosed with antibody deficiency disorders was included in the study. Patient history was taken for each participant, with emphasis on vaccination data. Laboratory investigations included immunoglobulin profiles and stool sample collection at one month intervals from each patient, with follow-up for six months. the virus isolates were detected using enzyme-linked immunosorbent assay (ELISA) and molecular reverse transcription polymerase chain reaction (RT-PCR) techniques.

Results: on the initial sample screens, one patient revealed excretion one for Sabin-like strain 1 (SL1) and one patient revealed excretion for Sabin like strain 2 (SL2). Only one patient continued to shed the virus (SL1) on three successive samples and on follow-up. There was no correlation between the level of immunoglobulins and duration of virus shedding.

Conclusion: the study demonstrates the low occurrence of prolonged vaccine polioviruses shedding in a group of children exposed to a live vaccine.

Keywords: Polio-Ivdpv- Immunodeficiency.

225. Empirical Antibiotic Treatment and the Risk of Necrotizing Enterocolitis and Death in Very Low Birth Weight Neonates

Eman A. Abdel Ghany and Aliaa A. Al

Ann Saudi Med, 32 (5): 521-526 (2012) IF: 1.071

Antibiotics are one of the most overused drugs in the neonatal unit. Our objective was to assess associations between the duration of the initial antibiotic course and subsequent necrotizing enterocolitis (NEC) and/or death in very low birth weight (VLBW) neonates with sterile initial postnatal culture results.

Design and Setting: A retrospective cohort analysis of VLBW neonates admitted to a tertiary center during the period from 1 January 2008 to 31 December 2009.
Patients and Methods: the study included VLBW neonates who had been inborn and admitted to the neonatal intensive care unit within the first 24 hours after birth. We used descriptive statistics to characterize the study population, and multivariate analyses to evaluate associations between therapy duration, prolonged empirical therapy, and subsequent NEC and/or death.
Results: of 328 VLBW neonates admitted to our center, 207 (63%) survived >5 days and received initial empirical antibiotic treatment for ≥ 5 days. the median duration of initial empirical antibiotic therapy was 7 days (range 5-10 days). Those neonates were more likely to be of younger gestational age, lower birth weight, and to have lower Apgar scores (P<.001, .001 and .017, respectively). Each empirical treatment day was associated with increased odds of death (OR 1.45, CI 1.24-1.69), NEC (OR 1.32, CI 1.05-1.65), and the composite measure of NEC or death (OR 2.13, CI 1.55-2.93).
Conclusion: the use of prolonged initial empirical antibiotic therapy in VLBW neonates with initial sterile culture results may be associated with an increased risk of NEC or death and should be used with caution.

Keywords: Nec; Death; Neonates; Antibiotic.

226. Prevalence of Hepatitis C Virus Infection and Human Immunodeficiency Virus in A Cohort of Egyptian Hemophiliac Children

Magy S. Abdelwahab, Mona S. El-Raziky, Normine A. Kaddah and Heba H. Abou-Elew

Ann Saudi Med, 32 (2): 200-202 (2012) IF: 1.071

The risk of blood-borne infections, especially hepatitis C virus (HCV) and human immunodeficiency virus (HIV) infection still remains in developing countries among children receiving blood products as hemophiliacs, but the risk is not known in Egypt. the objective of this study was to detect the prevalence of HCV and HIV infection among hemophiliac children to know the magnitude of the problem and determine potential risk factors.
Patients and Methods: This was a cross-sectional study conducted on 100 hemophiliac children that assessed the liver clinically and by laboratory tests. All children were screened for HCV and HIV antibodies by enzyme-linked immunosorbent assay. Those with positive HCV antibody titre were tested by polymerase chain reaction (HCV-PCR).
Results: Forty were positive for HCV antibodies with 19 children (47.5%) HCV-PCR positive as well. the mean age, average frequency of bleeds/year, dose of replacement therapy/year and alanine aminotransferase (ALT) levels were significantly high in HCV-antibody and PCR positive patients as compared to HCV antibody and PCR negative ones. None of our patients had clinical evidence of hepatic involvement or was co-infected with HIV.
Conclusion: HIV infection does not appear to be a current health problem in Egyptian hemophiliac children though the prevalence of HCV infection is still high.

Keywords: Hiv; Hcv; Hemophilia; Egypt.

227. High-Flux and Low-Flux Dialysis Membranes and Levels of Intercellular Adhesion Molecule-1 and Vascular Cell Adhesion Molecule-1 in Children with Chronic Kidney Failure

Happy K Sawires, Waleed A Mohamed and Mona F Schaalan

Iranian J. of Kidney Diseases, 6 (5): 366-372 (2012) IF: 0.87

Introduction: During hemodialysis, the expression of different adhesion molecules changes, thus serving as markers of biocompatibility of dialysis membranes. Our aim was to investigatewhether low-flux and high-flux dialysis membranes have different effects on the concentration of adhesion molecules and their association with leukocytes and pro-inflammatory cytokines.
Materials and Methods: We enrolled 80 pediatric patients on hemodialysis. Baseline levels of intercellular adhesion molecule-1 (ICAM-1) and vascular cell adhesion molecule-1 (VCAM-1) were measured. the patients were classified into 2 groups to use either low-flux filters or high-flux filters for 3 months. at the end of the 3 months, predialysis samples were obtained for measurement of ICAM-1, VCAM-1, TNF-α and interleukin-1. Post-dialysis samples were collected for measurement of CBC, ICAM-1, VCAM-1, TNF-α, and interleukin-1. Forty volunteers were involved as a control group.
Results: Both TNF-α and IL-1 were higher in the patients compared to the control group (P < .001). Compared to the control group, there was a significant increase in ICAM-1 and VCAM-1 (P < .001) in both groups predialysis and postdialysis. the postdialysis increments
of ICAM-1 with the high-flux membranes were significantly less compared to the low-flux membranes (P < .001). Serum ICAM-1and VCAM-1 significantly correlated with TNF-α and interleukin-1 in all groups.
Conclusions: the postdialysis increments of the adhesion molecules are due to the effect of dialysis membranes, which is less with the use of high-flux filters.

Keywords: Dialysis membranes; Intracellular adhesion molecule-1; Vascular cell adhesion molecule -1.

228. The Expanded Clinical Profile and the Efficacy of Colchicine Therapy in Egyptian Children Suffering from Familial Mediterranean Fever: A Descriptive Study

Hala Salah El-Din Talaat, Mohamed Farouk Mohamed, Nihal Mohamed El Rifai and Mohamed Ali Gomaa

Italian Journal of Pediatrics, 38-66 (2012) IF: 0.791

Familial Mediterranean fever (FMF) is an autosomal recessive disease characterized by self-limiting recurrent attacks of fever and serosal inflammation, leading to abdominal, thoracic or articular pain.
Objective: to detect variable clinical presentations of different groups of FMF patients and the efficacy of colchicine therapy in treatment of these groups of FMF after one year.
Methods: 70 patients with already diagnosed FMF and following-up at the Rheumatology Clinic, Children's Hospital - Cairo University were enrolled. the diagnosis of FMF was determined according to Tel Hashomer criteria for FMF. All patients were subjected to a questionnaire containing detailed history, demographic status, colchicine dosage to control attacks,

clinical manifestations, history of other diseases and development of amyloidosis and a treatment regimen was developed. Then, Response to colchicine treatment was evaluated as complete, incomplete and unresponsive.

Results: Out of seventy patients, 40 were males (57.1%) and 30 were females (42.9%) with a male to female ratio (M:F) of 1.3:1. Fever was the most common presenting feature, followed by abdominal pain, and arthritis; these were documented in 95.7%, 94.3%, and 77.1% of cases, respectively. Mild to moderate disease severity score was detected in a significant proportion of heterozygotes and gene-negative group than the homozygotes. All patients received colchicine therapy; 22.9% of them showed complete response, 74.3% showed incomplete response and 2.9% showed no response to therapy. the mean of colchicine dose needed to control attacks was significantly lower in heterozygotes than the homozygotes. Also patients' response to colchicine therapy was significantly better in the heterozygous group.

Conclusion: Heterozygous patients presenting with severe phenotype should be further analyzed for less common second MEFV mutation using gene sequencing.

Keywords: Familial mediterranean fever; Clinical presentations; Efficacy; Colchicine.

229. Tracheal Colonization in Preterm Infants Supported with Nasal Continuous Positive Airway Pressure

Hany Aly, Magda Badawy, Rania H. Tomerak, Amani A. El-Kholy and Abeer S. Hamed

Pediatr Int., 54: 356-360 (2012) IF: 0.626

The aim of this study was to examine endotracheal bacteriological status in premature infants who are supported by nasal continuous positive airway pressure (CPAP) without any history of tracheal intubation.

Methods: in this prospective study,we enrolled 60 premature infants with respiratory distress; of these, 30 were supported by CPAP without tracheal intubation, and 30 were intubated and mechanically ventilated. Infants were enrolled at a postnatal age of <24 h. Endotracheal (ET) cultures were taken at 24 h and at the 5th day of life. in the CPAPgroup, a suction catheter was sterilely inserted into the trachea while directly visualizing the vocal cords using a laryngoscope.

Results: ET cultures taken on the 1st day of life showed colonization in 7/30 (23%) in the CPAP group versus 19/30 (63%) in the mechanically ventilated group (P = 0.002). Tracheal cultures on day 5 were positive in 5/30 (17%) and 11/30 (37%), respectively (P = 0.093). Klebsiella ssp. represented the most frequently isolated organism in both groups. A positive tracheal culture at 5 days was associated with a longer duration of respiratory support in the CPAP group (P =0.05) but not in the ventilation group. Endotracheal culture at 5 days was associated with mortality in the ventilation group (8/11 vs 5/19, P = 0.02), but not in the CPAP group (1/5 vs 2/25, P = 0.45). Early endotracheal cultures did not relate with mortality in either of the groups.

Conclusion: the trachea of premature infants supported with CPAP is at risk for bacterial colonization. Predisposing factors, mechanisms and clinical implications of these novel findings need to be studied.

Keywords: Continuous positive airway pressure; Gram-negative bacilli; Pneumonia; Premature neonates; Ventilator-associated pneumonia.

230. Magnesium Concentrations in Acute Asthmatic Children

Maha Amin, Mohammed Abdel-Fattah and Safa S. Zaghloul

Iranian Journal of Pediatrics, 22 (4): 463-467 (2012) IF: 0.292

Objective: Magnesium (Mg) is thought to be an important element in the pathogenesis of acute asthma attacks. We hypothesized that erythrocytic Mg would be decreased during an acute asthma exacerbation. We aimed at investigating plasma and erythrocytic Mg in acute asthmatic children.

Methods: This case-control study included 30 Egyptian outpatients with acute asthma. Thirty healthy matched children were included as controls. All candidates had measurements of plasma and erythrocytic Mg levels before and after treatment.

Findings: No significant differences were detected in plasma Mg levels between cases and controls (1.53±0.33 mmol/L versus 1.67±0.50 mmol/L respectively, P =0.2). However,erythrocytic Mg levels were significantly reduced in cases when compared to controls (1.06±0.43 mmol/L versus 2.57±0.59 mmol/L respectively, P < 0.001). Plasma Mg levels did not significantly change in acute asthmatics before and after their rescue treatment (1.53±0.33 mmol/L versus 1.68±0.31mmol/L respectively, P=0.07). in contrast, the study detected a significant increase in erythrocytic Mg levels in cases after their treatment from acute attacks (1.06±0.43 mmol/L versus 1.56±0.23 mmol/L respectively, P < 0.001), with significant negative correlation with severity of attack (Spearman's rho=-0.647, P< 0.001.

Conclusion: Erythrocytic Mg levels were significantly lower during the acute asthma, and were negatively correlated with severity of exacerbation, while plasma Mg did not significantly change. Only erythrocytic Mg levels were significantly elevated after receiving rescue treatment.

Keywords: Asthma; Children; Erythrocytes; Magnesium.

231. Urinary Levels of Leukotriene E4 in Acute Asthmatic Children

Mohammed Abdel Fattah, Nehal El Rifai and Nadia Swelam

Journal of Pediatric Sciences, 4 (2): 1067 (2012)

Increased production of cysteinyl leukotrienes (CysLTs) within the airways causes acute asthma. Leukotriene E4 (LTE4) is a potent constricting mediator and is excreted in urine. This study hypothesized that uLTE4 levels would be increased in acute asthma in Egyptian children.

Aim Of The Work: the study measured urinary LTE4 (uLTE4) in children with acute asthma and compared them to a matched healthy control group.

Patients and Methods: the study included 40 acute Egyptian asthmatic children and 40 age-and sex-matched controls. All candidates were subjected to a complete clinical study (thorough history and physical examination), with emphasis on severity of asthma attack according to Global Initiative for Asthma Guidelines. Measurement of urinary creatinine was performed for all study candidates. Measurement of uLTE4 (pg/mg creatinine) was performed using commercial ELISA kit.

Results: Levels of uLTE4 were significantly higher in cases compared to controls (305.48 ± 34 pg/mg creatinine versus

175.55 ± 79 pg/mg creatinine respectively, 95% CI (17.7; 242.1), p=0.024).Levels of uLTE4 were significantly higher in cases with moderate and severe attacks in comparison to those with mild attacks. There was a significant positive correlation between severity of the attack and uLTE4 levels (Spearman's rho = 0.446, p=0.004).
Conclusions: Levels of uLTE4 are significantly elevated during acute asthma episodes in children. the significant direct correlation between severity of these attacks and uLTE4 levels make uLTE4 a possible marker for monitoring acute asthma exacerbations in children.

Keywords: Asthma; Acute; Ulte4; Children.

232. Pediatric Preparedness for Bioterrorism: A New Horizon in Developing Countries

Mortada El-Shabrawi, Mona Schaalan and Fetouh Hassanin

Journal of Bioterrorism & Biodefense, 3-11 (2012)

Bioterrorism is the threat of deliberate release of viruses, bacteria, or other germs (agents) used to cause illness or death in people, animals, or plants. These agents are typically found in nature, but it is possible that they could be intentionally changed to increase their virulence, ability to cause disease, resistance to current medicines and dissemination into the environment. These noxious biological agents can be spread through the air, through water, or in food.

Keywords: Pediatric preparedness; Bioterrorism.

233. Predictive Accuracy of Serum Hyaluronic Acid as A Non-Invasive Marker of Fibrosis in A Cohort of Multi Transfused Egyptian Children with β-Thalassaemia Major

Mortada H.F. El-Shabrawi, Maha Y. Zein El Abedin, Naglaa Omar, Naglaa M. Kamal Sayed Abou Elmakarem, Sahar Khattab, Hussein M. El-Sayed, Ahmed El-Hennawy and Ali S.M. Ali

Arab Journal of Gastroenterology, 13: 45-48 (2012)

Liver disease remains a major cause of morbidity and mortality in patients with b-thalassaemia major (β-TM); therefore, its identification at an early stage is of great significance. Serum hyaluronic acid (HA) is considered as a non-invasive marker that appears early before pathological changes occur. We aim to determine the predictive accuracy of HA in detecting and staging hepatic fibrosis in β-TM patients.
Patients and methods: 30 Egyptian children with β-TM, and 15 age and sex-matched controls were studied. All had abdominal ultrasonography (US), measurement of serum amino-transferases (ALT, AST); hepatitis C, B and human immunodeficiency viruses (HCV, HBV, HIV) sero-markers, serum ferritin and HA. Liver biopsy was done for patients and fibrosis was scaled using Metavir scoring system and liver iron concentration (LIC) was measured.
Results: Twenty patients (67.7%) had sero-markers of HCV, none had HBV or HIV. Serum HA was significantly higher in patients (90.78 ± 28.79 ng/ml) compared to controls (21.1 ± 13.24 ng/ml) with $p < 0.05$. No difference between HCV infected and non-infected patients was detected. Positive significant correlation was detected between serum HA and stages of fibrosis by histopathology and US. No correlation was found between serum HA and age, sex, weight, height, haemoglobin level, platelet count, AST, serum ferritin, necro-inflammatory grade, and LIC.
Conclusions: Serum HA is a valuable non-invasive marker that may contribute to the assessment of liver fibrosis in multi-transfused children and adolescents with β-TM, irrespective of concomitant HCV infection.

Keywords: Hyaluronic Acid; Liver Fibrosis; B-Thalassaemia; Liver Fibrosis.

234. Clinical Outcome of Children with Post Bacillus Calmette and Guerin Vaccination Complications: A Single Center Experience

Nermeen M. Galal

World Journal of Vaccines, 2: 50-54 (2012)

Bacillus Calmette ET Guerin (BCG) vaccine, compulsory in endemic areas, remains the only available vaccine for prevention of Tuberculosis (TB) despite its modest protective value. Complications may arise in healthy/ immunocompromized hosts.
Methods: Children presenting with BCG vaccine related complications in the form of lo- cal/distant complications were enrolled from 2007-2010 at Cairo University Pediatric hospital.
Objectives: Assess out- come of BCG related complications in a group of children with post vaccination incidents, identify risk factors for complications among vaccinated children and identify cases of underlying Primary Immunodeficiency (PID) among presenting cases.
Results: Fifty one eligible patients were included, forty three were proved immunocompetent, and eight had underlying primary immunodeficiency disorders. Presentations included localized axillary lymphadenopathy, cervical sinuses, granulomatous lesions and disseminated forms Faulty injection sites were strongly associated with complications (p value < 0.001). Patients without underlying PID had larger scar size and younger age at presentations (p values: 0.02, 0.0001 respectively). Resolution of lesions was observed in 97% (95% CI 97% ± 3%) of cases without underlying PID versus fatal outcome in all cases with underlying immune defects.
Conclusion: Local BCG related complications do not necessarily indicate underlying PID, disseminated complications are more serious and warrant further investigations. If PID is suspected, vaccination should be deferred to avoid its potentially fatal outcome.

Keywords: Bcg related complications; Primary immunodeficiency.

235. Immunophenotyping of Lymphocyte Subpopulations and Pre-Inflammatory Mediators in Neonatal Sepsi

Mostafa Zakaria and Mona Rafaat,

Advances in Environmental Biology, 6 (11): 2948-2952 (2012)

Sepsis is one of the major causes of neonatal morbidity and mortality. the present study was designed to elucidate the changes in the lymphocyte subsets and in the pre-inflammatory mediators; IL-6 and IL-1b in full-term neonates with sepsis Patients and methods: A prospective study was carried out at the neonatology intensive care unit of Cairo University in the period from June 2007 to June 2009 and included 96 full term neonates, classified

into 2 groups. A Septic group (n = 50) and a control group (n=46). the parameters.
studied serially were: complete blood count, differential WBCs, blood culture, C- reactive protein. The lymphocyte subsets including; CD3+, CD4+, CD8+, NK cells, and B cells. Also the interleukins including; IL-1b and IL-6, and the immunoglobulins (Igs) including IgA, IgG, and IgM.
Results: CRP, IL1-b, and IL6 were significantly higher in the sepsis group than in the control group. IL-6 > 90 pg ? ml was an excellent marker with high sensitivity and specificity. A significantly elevated absolute and percentage counts of CD19+, CD 4+ and NK cells in the septic group, while total lymphocytic count, CD3+ and CD8 + were not significantly different.
Conclusion: this study has shown that the combination of IL-6 with CRP can offer a good diagnostic accuracy in the detection of sepsis in neonates. NK cells are elevated in documented sepsis and it may be considered as an early diagnostic marker.

Keywords: Neonates; Sepsis; lymphocytes; Pre-Inflammatory Mediators; Immunop henotyping.

236. Correlation between Serum Insulin Growth Factor I Deficiency and Occurrence of Retinopathy of Prematurity

Mostafa Zakaria, Mansour Hassan and Mona Rafaat

Australian Journal of Basic and Applied Sience, 6 (9): 577-582 (2012)

Retinopathy of prematurity (ROP) is a blinding disease, initiated by the lack of retinal vascular growth after preterm birth. in Vitro, lack of insulin-like growth factor I (IGF-I) prevents normal retinal vascular growth. the present study was conducted to determine if low serum IGF-I levels in premature infants is associated with a higher incidence of retinopathy and therefore may be used as a prognostic factor for the occurrence of such events. Patients and **Methods**: A prospective study was carried out at the neonatology intensive care unit of Cairo University in the period from June 2007 to June 2009 and included forty infants the inclusion criteria were: gestational age under 32 weeks or weight at birth < 1,500 g. Twenty healthy full term infants selected randomly during the same time period constituted the control group.
Results: of the 40 premature babies recruited, 17 (42.5%) developed some degree of retinopathy during the course of the study, among the 17 cases of ROP diagnosed, 35% (n =6) developed stage 1 retinopathy, 47% (n =8) stage 2 and 18% (n =3) stage 3. Mean serum IGF-I values were measured at birth and at 3 weeks and were found significantly lower at birth and after 3 weeks in ROP group in comparison to normal. Moreover, infants with stage 2 ROP and sage 3 ROP showed significantly lower mean values of IGF-I than cases with stage 1 ROP.
Conclusion: Our study suggests that Low levels of serum IGF-I in preterm infants appears to predict an increased risk of ROP, as well as other severe perinatal morbidities associated with preterm birth. the observed relationship between ROP and lower levels of IGF1 opens up the possibility of treatment with an IGF1 substitute, especially since birth.

Keywords: Retinopathy; Prematurity; Insulin growth factor.

237. MEFV Gene Mutations in Egyptian Children with Familial Mediterranean Fever: Clinical Versus Genetic Diagnosis

Samia Salah, Mostafa Zakaria, Mona Azez and Hoda Marzouk

Advances in Environmental Biology, 6 (11): 2894-2900 (2012)

To determine the frequencies of MEFV gene mutations in a cohort of Egyptian patients in whom FMF was diagnosed and to explore the presence of a possible correlation between the diverse genotypes and the phenotypic expressions of the disease.
Patients and methods: This cross sectional study was conducted in the Rheumatology clinic, New Children Hospital, Cairo University in the period from February 2010 to February 2012. It included 61 patients with the clinical diagnosis of FMF. All patients were screened for the presence of the 3 commonest mutations: M680I, V726A and M694V. Mutations were analyzed by amplification refractory mutation system (ARMS).
Results: Positive mutations were found in 17 patients (27.87%). V726A gene mutation was the most frequent mutation (19.7%), followed by M6801 mutation (11.5%), whereas M694V mutation was reported in one patient (1.6%). the attacks were significantly more frequent in patients with positive mutations compared to patients with negative mutations while no significant differences were observed between the 2 groups regarding the presenting symptoms. There were no significant differences between patients with positive M680I and positive V726A regarding their clinical presentations and laboratory findings. Only one of our patient with V726A gene mutation developed amyloidosis.
Conclusion: There is no consistency in the association between specific MEFV mutations and phenotypic features. in other words, specific FMF mutations are not the sole determinants of the disease severity nor for the development of amyloidosis. Further studies are needed to identify new MEFV mutation or MEFV- related genes and to explore the other factors behind the wide phenotypic variations of the disease.

Keywords: Mefv gene mutations; Familial; Mediterranean fever; Amyloidosis.

238. Assessment of Risk Factors of Pediatric Urolithiasis in Egypt

Mostafa Zakaria, Sherif Azab and Mona Rafaat

Translation Andrology and Urology, 1 (4): 209-215 (2012)

Pediatric urolithiasis is a significant medical problem, which has seen an increasing incidence in developing countries. the main objective of the present study was to investigate the clinical characteristics and the most important risk factors that contribute to stone formation in Egyptian children.
Patients and methods: This prospective study was carried out at the outpatient clinics of Cairo university children's hospital as well as October 6 University hospitals, between November 2008 and March 2012. One hundred and fifty children (100 males, 50 females; mean age 3.5 years; range, 1-14 years) suffering from urinary stones were included. the mean follow-up duration; 33.1 months. All patients underwent detailed medical and family histories, dietary habits and physical examination, including Growth percentiles. Laboratory investigations were performed including: complete urine analysis and culture and sensitivity tests, urine collection in 24-h to quantity urinary volume, pH, calcium, uric acid, magnesium, creatinine, oxalate and citrate. Blood samples were obtained to measure (serum creatinine,

calcium, phosphorus, uric acid level, and alkaline phosphatase and electrolyte levels, in addition to pH and pCO2 values). Radio-sonographic investigation of the abdomen and pelvis was also performed.

Results: the commonest presentations were abdominal pain in 42 children (28%) and gross hematuria in 35 patients (23%). Urinary tract infection was the most common risk factor, 60 patients (40%) had UTI, 70% of them had recurrent infections. Genito-urinary abnormalities, as a risk factor, were detected in 38 children (25%), with vesico-uretheral refux being the commonest abnormality (18/38). Metabolic risk factors were detected in 34 children (23%) with hypercalciuria and hyperoxaluria being the commonest metabolic abnormalities. Treatments used were, ESWL in 69 patients (46%), endoscopic interventions in 40 children (27%) and open surgery in 15 children (10%). the remaining 26 children (17%) were managed conservatively

Keywords: Pediatric; Urolithiasis; Uti; Metabolic; Hypercalciuria.

239. Outpatient Blind Percutaneous Liver Biopsy in Infants and Children: Is It Safe

Mortada H. El-Shabrawi, Hanaa M. El-Karaksy, Sawsan H. Okahsa, Naglaa M. Kamal,Gamal El-Batran and Khaled A. Badr

Saudi Journal of Gastroenterology, 18 (1): 26-33 (2012)

We aim to investigate the safety of outpatient blind percutaneous liver biopsy (BPLB) in infants and children with chronic liver disease (CLD).

Patients And Methods: BPLB was performed as an outpatient procedure using the aspiration Menghini technique in 80 infants and children, aged 2 months to 14 yrs, for diagnosis of their CLD. Patients were divided into three groups: Group 1 (<1 year), group 2 (1-6 yrs), and group 3 (6-14 yrs). the vital signs were closely monitored 1 hr before biopsy, and then 1, 2, 6, and 24 hrs after biopsy. Twenty-four hours pre- and post-biopsy complete blood counts, liver enzymes, prothrombin time (PT), and abdominal ultrasonography, searching for a biopsy-induced hematoma, were done for all patients.

Results: No mortality or major morbidities were encountered after BPLB. the rate of minor complications was 17.5% including irritability or "pain" requiring analgesia in 10%, mild fever in 5%, and drowsiness for >6 hrs due to oversedation in 2.5%. There was a statistically significant rise in the 1-hr post-biopsy mean heart and respiratory rates, but the rise was non-significant at 6 and 24 hrs except for group 2 where heart rate and respiratory rates significantly dropped at 24 hrs. No statistically significant difference was noted between the mean pre-biopsy and the 1, 6, and 24-hrs post-biopsy values of blood pressure in all groups. the 24-hrs post-biopsy mean hemoglobin and hematocrit showed a significant decrease, while the 24-hrs post-biopsy mean total leucocyte and platelet counts showed non-significant changes. the 24-hrs post-biopsy mean liver enzymes were non-significantly changed except the 24-hrs post-biopsy mean PT which was found to be significantly prolonged, for a yet unknown reason(s).

Conclusions: Outpatient BPLB performed by the Menghini technique is safe and well tolerated even in infants and young children. Frequent, close monitoring of patients is strongly recommended to achieve optimal patient safety and avoid potential complications.

Keywords: Blind percutaneous liver biopsy; Complications; Infants; Children.

240. Management of Portal Hypertension in Children: A Focus on Variceal Bleeding

Mortada H.F. El-Shabrawi, Mona Isa and Naglaa M. Kamal

Journal of Gastroenterology and Hepatology Research, 21 1(2): 20-26 (2012)

Treatment of the primary cause of many chronic liver diseases (CLDs) may not be possible and serious complications like portal hypertension (PH) must be prevented or controlled enabling the child with CLD to live with a good quality of life. Early detection of PH is achieved by history taking, examination, imaging techniques as well as esophagogastroduodenoscopy (EGD). Primary prevention of first episode of variceal hemorrhage involves use of non-selective β-blocker (NSBB)and rubber band endoscopic variceal ligation (EVL).

Management of acute variceal bleeding includes effective resuscitation, prompt diagnosis, control of bleeding and prevention of complications. Prevention of secondary variceal hemorrhage is through a combination of EVL plus pharmacological therapy, other therapies include surgical porto systemic shunt (PSS) and Meso-Rex bypass.

The goal of this review is to highlight the pediatrician role in management of variceal bleeding in children with PH in order to improve their survival and avoid its life threatening complications exceeds 12 mm Hg[1]. PH associated with chronic liver disease (CLD) poses distinctive risks, including luminal gut bleeding, ascites and hepatic encephalopathy. PH can also be present in the absence of CLD in the setting of portal vein obstruction (PVO). A major cause of cirrhosis-related morbidity and mortality is the development of variceal hemorrhage, a direct consequence of portal hypertension.

Variceal hemorrhage may be lethal, although effective interventions have resulted in a threefold decrease in mortality over the past three decades. in one study mortality between 1980 and 2000 decreased from 9% to 0% in Child-Turcotte-Pugh (CTP) class A patients, from 46% to 0% in CTP B patients and from 70% to 30% in CTP C patients.

Much of this improvement has resulted from more effective interventions before, during and after a bleeding episode.

Keywords: Chronic Liver Disease; Portal Hypertension.

241. Diversity in Auxology: Between Theory and Practice

M. Hermanussen, L.S. Lieberman, V. Sch□nfeld Janewa, C. Scheffler, A. Ghosh, B. Bogin, E. Godina, M. Kaczmarek, M. El-Shabrawi, E.E. Salama, F.J. Rühli, K. Staub, U. Woitek, P. Blaha, C. Aβmann, S. van Buuren, A. Lehmann, T. Satake, H.H. Thodberg, E. Jopp, S. Kirchengast, J. Tutkuviene, M.H. McIntyre, U. Wittwer-Backofen, J.L. Boldsen, D.D. Martin and J. Meier

J. Biol. Clinic. Anthrop., 160-174 (2012)

Auxology has developed from mere describing child and adolescent growth into a vivid and interdisciplinary research area encompassing human biologists, physicians, social scientists, economists and biostatisticians. the meeting illustrated the diversity in auxology, with the various social, medical, biological and biostatistical aspects in studies on child growth and development.

Keywords: Child growth; Adolescent growth; Child development; Height; Weight; Body mass.

242. Adiponectin: an Adipocyte-Derived Hormone, and its Gene Encoding in Children with Chronic Kidney Disease

Manal F Elshamaa, Samar M Sabry, Marwa M El-Sonbaty, Eman A Elghoroury, Nahed Emara, Mona Raafat, Dina Kandil and Gamila Elsaaid

Bmc Research Notes, 5 (174): 2-8 (2012)

Background: the prevalence of cardiovascular disease (CVD) and inflammation is high in patients with chronic kidney disease (CKD). Adiponectin (ADPN) is an adipocytokine that may have significant anti inflammatory and antiatherosclerotic effects. Low adiponectin levels have previously been found in patients with high risk for CVD.
Methods: on seventy eight advanced CKD (stages 4 and 5) pediatric patients undergoing maintenance hemodialysis(MHD) or conservative treatment (CT) the following parameters were studied: body mass index, left ventricular mass index(LVMI), serum adiponectin , cholesterol, HDL cholesterol, high sensitivity C-reactive protein (hs CRP),interleukin 6(IL6) and single-nucleotide polymorphisms (SNPs) in the ADIPOQ gene at positions 45, and 276. Seventy age-and gender-matched healthy subjects served as control subjects.
Results: Markedly (P=0.01) elevated plasma adiponectin levels were observed in CKD patients, especially CT patients, compared to control subjects. the wild type of ADIPOQ 45T > G (T) allele is the main gene for patientsand controls. MHD and CT patients had significantly higher frequency of the TT genotypes of +276G > T gene(P = 0.04) compared with control subjects. A significant positive correlation was observedbetween plasmaadiponectin and IL6 level, whereas negative correlations were found between adiponectin level, cholesterol, HDL cholesterol and hs CRP. in a stepwise backward multiple regression model only IL6 (P = 0.001) was independentlyassociated with plasma adiponectin levels. the adiponectin gene the 276 GT+TT genotypes were associated with a higher level of adiponectin .
Conclusions: the present study demonstrated that ADPN is related to several metabolic and inflammatory CV risk factors in a manner consistent with the hypothesis that this protein might have a protective role against these factors. We observed an association between the +276G>T SNP in the adiponectin gene and CKD in children. Genetic variation of +276 gene seemed to have a positive impact on circulating adiponectin levels in CKD patients.

Keywords: Adiponectin; Single Nucleotide Polymorphisms; Ckd; Children; Inflammation.

243. Clinical Scenario of Primary Dyslipidaemia in the Paediatric Age Group; an Egyptian Experience

Rania Hosny Tomerak, Nermeen Moftah Gala, Sawsan Hassan Abdelhady and Khaled A. Naem

Journal of Pakistan Medical Association, 62 (4): 321-328 (2012)

To study the frequency of occurrence of the different forms of primary dyslipidaemia, to display their various clinical presentations and their lipid profile before and six months after therapy.
Methods: Prospective study was conducted in the Cairo University Childrens' Hospital- Twenty primary dyslipidaemic cases were included with history taking, clinical examination, electrocardiography and echocardiography. Investigations included: Total cholesterol, total triglycerides, LDL-C and HDL-C using enzymatic colorimetric methods, ApoA1, Apo B100 were evaluated using a Behring nephelometer. Different therapeutic modalities were offered and reassessment of laboratory tests was done every three months.
Results: Parents were consanguineous in 75%. Eleven cases had hypercholesterolaemia; eight had xanthoma, one had xanthelasma, two had hypo pigmentation, three had corneal arcus, one had lipaemia retinalis and six had cardiac manifestations among which one case had myocardial infarction and one case died. Three cases had hypertriglyceridaemia; three had milky plasma, two had xanthoma, two had lipaemia retinalis, one case had pancreatitis and none had cardiac manifestations. Six cases had mixed hyperlipidaemia; five had xanthoma, three had lipaemia retinalis and two had cardiac manifestations. After six months of multi-drug use, the laboratory lipid profile was unsatisfactory in majority of the cases.
Conclusion: Primary dyslipidaemia may present early and paediatricians should have high index of suspicion. These children should be put on early strict lipid reduction protocols to prevent complications.

Keywords: Paediatric cardiovascular disease; Xanthoma; Pancreatitis; Myocardial infarction.

244. Does Bloody Aspirate Reflect the State of Upper Gastrointestinal Mucosa in A Critically Ill Newborn?

Rania H. Tomerak, Ayman A. El Badawy, Ayman E. Eskander, and Amira H. Mahmoud

Arab J. Gastroenterol, 13: 130-135 (2012)

Critically ill newborns have many risk factors to develop stress related mucosal lesions (SRML). We used upper endoscopy to evaluate the presence of SRML in these neonates, to know the specificity and sensitivity of the bloody gastric aspirate to detect SRML and to identify the risk factors associated with the presence of SRML and bloody gastric aspirate.
Patients and Methods: This is a cross-sectional study done on 100 critically ill newborn after becoming clinically stable. SRML were diagnosed if there is hyperaemia, erosions or ulcers in the oesophagus, stomach, and/or the duodenum.
Results: SRML were found in 77% of neonates in the NICU though frank bloody aspirate was detected in only 22% of neonates. the presence of bloody aspirate showed low sensitivity (24.68%) and high specificity (86.96%) for the presence of SRML. the presence of bloody gastric aspirate showed a double fold risk for the presence SRML (OR=2.184, CI=0.584-8.171). Factors associated with SRML included respiratory distress (p=0.000, risk=4.006), the use of nasogastric tube (p=0.017, OR=3.281) and the use of triple antibiotics (p=0.001, risk=1.432). Factors associated with the presence of bloody gastric aspirate included the use of nasogastric tube (OR=1.629, p=0.000) and the presence of haemostatic disorders (OR=3.143, p=0.039). It was also associated with lower haemoglobin levels (p=0.000).
Conclusion: SRML represents an under-diagnosed problem in NICUs. Absence of bloody gastric aspirate does not exclude the presence of SRML

Keywords: Stress related mucosal lesions; Endoscopy and newborns.

245. Red Blood Cell Transfusion in Preterm Infants: Changes in Glucose, Electrolytes and Acid Base Balance

Shereen Abdelghaffar, Yasmeen Mansi, Reem Ibrahim and Dina Mohamed

Asian Journal of Transfusion Science, 6 (1): 36-41 (2012)

Preterm neonates comprise the most heavily transfused group of patients, and about 85% of extremely low birth weight newborns receive a transfusion by the end of their hospital stay. the aim of this study was to assess the possible metabolic effects of RBC transfusion on preterm infants, especially during the first 2 weeks of life, and its relation to blood volume.

Materials and Methods: This study was conducted on 40 preterm neonates with gestational age of less than or equal to 34 weeks. They received RBCs transfusion during first 2 weeks of life. Venous blood samples of infants were collected 2 to 4 hours before and 1 hour after the end of transfusion to evaluate hemoglobin (Hb) level, hematocrit, acid-base, electrolytes, and glucose status. Then, infants were classified into two main groups: those who received RBCs volume less than or 20 ml/kg and those who received RBCs volume more than 20 ml/kg.

Results: Infants received a mean volume of 20.38 ± 3.2 ml/kg RBCs (range, 10.9 - 26.6 ml/kg) at a median age of 9.8 ± 3.6 days. After transfusion, a significant increase of mean Hb ($P<0.001$), mean Hct ($P<0.001$), pH ($P<0.001$), pO(2) ($P<0.05$), and a significant decrease of the pCO2 (41.46 ± 8.8torr vs 35.4 ± 9.34 torr; $P<0.001$) were observed. in addition, there was a significant increase of serum K(+) ($P<0.001$), and a significant decrease of Ca(+2) ($P<0.001$). A positive correlation was found between the K(+) intake and the changes of kalemia ($r = 0.99$; $P = 0.00$). Furthermore, we observed an inverse correlation between the patients' calcium intake and the changes of calcemia ($r = -0.35$; $P = 0.02$). on comparing the changes in clinical and biochemical variables between two groups after transfusion, we observed a significant increase in mean Hb and Hct associated with a significant decrease in mean serum Ca(+2) ($P<0.001$) in the group receiving the larger blood volume.

Conclusion: RBC transfusion was effective in improving anemia, oxygenation, increasing pH, and decreasing CO (2) and Ca(+2). However, from a more clinically relevant point of view, we demonstrated the development of hyperkalemia, especially in infants with a previously borderline hyperkalemia.

Keywords: Transfusion; Acid; Balance; Electrolytes.

246. Clinical Characterization and Nphp1 Mutations in Nephronophthisis and Associated Ciliopathies: A Single Center Experience

Neveen A Soliman, Friedhelm Hildebrandt, Edgar A Otto, Marwa M Nabhan, Susan J Allen, Ahmed M Badr, Maha Sheba, Sawsan Fadda, Ghada Gawdat and Hassan El-Kiky

Saudi Journal of Kidney Diseases and Transplantation, 223 (5): 1090-1098 (2012)

Nephronophthisis (NPHP) is a recessive disorder of the kidney that is the leading genetic cause of end-stage renal failure in children. Egypt is a country with a high rate of consanguineous marriages; yet, only a few studies have investigated the clinical and molecular characteristics of NPHP and related ciliopathies in the Egyptian population. We studied 20 children, from 17 independent families, fulfilling the clinical and the ultrasonographic criteria of NPHP.

Analysis for a homozygous deletion of the NPHP1 gene was performed by polymerase chain reaction on the genomic DNA of all patients. Patients were best categorized as 75% juvenile NPHP, 5% infantile NPHP, and 20% Joubert syndrome-related disorders (JSRD). the mean age at diagnosis was 87.5 + 45.4 months, which was significantly late as compared with the age at onset of symptoms, 43.8 ± 29.7 months ($P<0.01$). Homozygous NPHP1 deletions were detected in six patients from five of 17 (29.4%) studied families. Our study demonstrates the clinical phenotype of NPHP and related disorders in Egyptian children. Also, we report that homozygous NPHP1 deletions account for 29.4% of NPHP in the studied families in this cohort, thereby confirming the diagnosis of type-1 NPHP. Moreover, our findings confirm that NPHP1 deletions can indeed be responsible for JSRD.

Keywords: Chronic Kidney Disease; Joubert Syndrome Related Disorders; Nephronophthisis; Molecular Genetic Analysis.

247. Echocardiographic Study of Infants of Diabetic Mothers Versus Macrosomic Infants of Non-Diabetic Mothers - an Egyptian Experience

Nayera Attia, Mohamed Fathallah, Hebatalla Attia, Mervat El Feky, Hala El Rabei, Reham Shaker, Mohamed Farouk and Mortada El-Shabrawi

Journal of Medicine and Biomedical Sciences, : 0-0 (2012)

Aim: the infant of diabetic mother (IDM) is exposed to in-utero to a deranged metabolic milieu that might affect its heart as detected by echocardiography. This study aimed at comparing the echocardiographic findings of infants of controlled or uncontrolled gestational or pre-gestational diabetic mothers, macrosomic infants of nondiabetic mothers, and healthy full term neonates.

Methods: A prospective case-control study was conducted on 20 IDMs (group 1), 20 macrosomic infants of non-diabetic mothers (group 2) and 20 controls. All infants were evaluated regarding serum insulin level, and chest x-ray and echocardiographic findings in the first three days of life. Maternal glycated hemoglobin (HBA1c) was measured at or shortly after delivery.

Results: There was a significantly higher percentage of congenital heart diseases among IDMs as well as a significantly higher percentage among pregestational compared to gestational subgroups ($p<0.05$). Patent ductus arteriosus (PDA) was much frequently encountered in IDMs. Echocariography revealed a significantly higher interventricular septum dimension in diastole (IVSD) in IDMs as compared to the controls ($p<0.05$). A significant negative correlation between HBA1c, end diastolic dimensions (EDD) and left atrium thickness (LA) was noted. Ejection fraction (EF%) was significantly negatively correlated with random blood sugar and significantly positively correlated with HBA1C. End systolic dimensions (ESD) were significantly negatively correlated with HBA1c in IDMs.

Conclusion: Maternal diabetes is associated with myocardial dysfunction in IDMs. the most common echocardiographic findings are PDA, thickened myocardium and significant septal hypertrophy. Women with good glycemic control can expect favorable pregnancy outcomes compared to the general population.

Keywords: Echocardiography; Infant of diabetic mothers; Macrosomia.

248. Disorders of the Gallbladder and the Biliary System

Mortada El-Shabrawi

Textbook of Clinical Pediatrics- Second Edition, 3: (2012)

Although gallbladder and biliary tract diseases are relatively uncommon in infants and children, pediatric patients comprise a relatively big number of cholecystectomies, with a rising rate in recent years. Pediatric gallbladder stones (cholelithiasis) and bile duct stones (choledocolithiasis) are most commonly associated with hemolytic diseases or hemoglobinopathies; however, other risk factors are recognized.

Extended administration of total parenteral nutrition (TPN) support and prolonged survival after extensive bowel resection increase the risk of gallbladder disease, a cause that will likely continue to increase as survival rates improve in extremely low birth weight infants. in addition, as childhood obesity reaches near-epidemic proportions in many Western countries, gallbladder disease related to dietary factors is increasing Gallbladder and biliary tract diseases should be in the differential diagnosis of any pediatric patient who presents with right upper quadrant pain, jaundice, or unremitting dyspepsia with normal endoscopic gastric findings.

Asymptomatic gallstones and symptomatic pigment gallstones in children are common indications for surgery. Noncalcified gallstones due to long-term cholestasis or TPNmay respond to medical therapy with choleretics such as ursodeoxycholic acid (UDCA). Aside from gallstones, the pediatric population can experience anatomical abnormalities including hydrops of the gallbladder, extrahepatic biliary atresia (EHBA), and choledochal cysts discussed below. Other anomalies as intrahepatic biliary hypoplasia, Caroli disease,

perforations, and biliary dyskinesia are beyond the scope of this chapter.

Dept. of Pharmacology

249. Effects of Topiramate on Diabetes Induced by Streptozotocin in Rats

Amani Nabil Shafik

European Journal of Pharmacology, 684: 161-167 (2012)
IF: 2.516

Topiramate currently approved for marketing as antiepileptic drug also possesses anti-diabetic activity. the aim of this study was to determine the antidiabetic effect of topiramate in a rat model of diabetes mellitus.

Diabetes was induced by a single injection of streptozotocin to fasted rats. Diabetic animals were divided into untreated; insulin treated; topiramate treated with 25, 50 and 100 mg/kg; and combined insulin plus topiramate treatment in the previous doses. All medications were given once daily started after the rise of blood glucose for three weeks. Control rats were divided into untreated; vehicle treated and rats given topiramate in the previous doses. Body weight, blood-glucose and insulin levels were measured.

Histopathological examination, immunohistochemical and morphometric studies of islets of the pancreas were done. Topiramate 50 and 100 mg/kg resulted in a significant decrease in the blood glucose and increase in the insulin levels as well as the number of islets and the count and mass of beta cells. Combined treatment to diabetic rats with insulin and topiramate induced a better response than either alone. Further experimental and clinical studies are needed to explore the different mechanisms of action of topiramate as antidiabetic both in insulin dependent and non-insulin-dependent diabetes mellitus.

Keywords: Diabetes mellitus; Pancreatic hormone receptor; Streptozotocin; Topiramate.

Dept. of Physiology

250. Effect of Recombinant Erythropoietin on Ischemia-Reperfusion Induced Apoptosis in Rat Liver

Heba M. Shawky, Sandra M. Younan, Leila A. Rashed and Heba Shoukry

J. Physiol Biochem, 68: 19-28 (2012) IF: 1.711

Ischemia reperfusion (I/R) can not be avoided in liver transplantation procedures and apoptosis is a central mechanism of cell death after liver reperfusion. Protective effect of recombinant erythropoietin (rh EPO) on liver apoptosis has not been clearly investigated.

This work investigated intraportal (i.p) rhEPO protective effect in a rat model of hepatic I/R induced apoptosis and its appropriated time and dose of administration. Eight groups were included (n=10/group): sham-operated, I/R (45 min ischemia and 2h reperfusion), preconditioned rhEPO I/R (24h or 30 min before ischemia) and post-conditioned rhEPO I/R (before reperfusion) using two different rhEPO doses (1000 and 5000 IU/Kg). When compared with the sham-operated group, the I/R group showed significant increase of serum levels of aspartate and alanine aminotransferases (AST, ALT), hepatic caspase-9 activity (894.99±176.90RFU/mg/min versus 458.48±82.96 RFU/mg/min) and Fas ligand (FasL) expression, histopathological damages and significant decrease in the antiapoptotic Bcl-xL/apoptotic Bax ratio(.38 ±.21versus3.35± .77) rh EPO improved ALT and AST but failed to reduce FasL expression in all groups compared to the I/R group. 30 min and 24h Preconditioning with rhEPO (1000 IU/Kg) increased Bcl-xL / Bax ratio and reduced caspase-9 activity and the same effect was observed when higher dose was given 24h before ischemia.

Preconditioning was more effective than post-conditioning in improving caspase-9 activity and no dose dependent effect was observed. in conclusion, single i.p rhEPO injection 30 min before ischemia has an advantage over rhEPO post-conditioning in improving post-hepatic I/R induced apoptosis with no additional time and dose dependent effect which may provide a potentially useful guide in liver transplantation procedures.

Keywords: Ischemia; Reperfusion-apoptosis; Erythropoietin.

251. An Evaluation of Anti-Diabetic and Anti-Lipidemic Properties of Momordica Charantia (Bitter Melon) Fruit Extract in Experimentally Induced Diabetes

Ibraheem Mohammady, Samah Elattar, Sanaa Mohammed and Madeha Ewais

Life Science Journal, 9 (2): 363-374 (2012) IF: 0.073

Aim: Momordica charantia is reported to possess hypoglycemic activity. This study aims at investigating the effect of Momordica charantia extract on glucose tolerance and some biochemical parameters in alloxan induced diabetes, comparing it to the effect of rosiglitazone maleate, an oral hypoglycemic drug, and to suggest the possible mechanisms of its action.
Main methods: Rats were divided into 5groups: normal control, rats received bitter melon, diabetic control, diabetic treated with rosiglitazone (4mg/kg BW), and diabetic received Momordica charantia (300 mg/kg BW). After 4weeks, OGTT, serum insulin, lipid profiles, glycohemoglobin% (HbA1c%), liver enzymes activity and glycogen content, intestinal absorption and diaphragm uptake of glucose and histopathological studies on the pancreas were evaluated.
Key findings: Bitter melon (BM) induced a significant improvement of OGTT and induced a significant decrease in HbA1c% ($p<0.05$), significantly increased insulin release from the pancreas and serum insulin level, increased glucose uptake by rat diaphragm and decreased intestinal glucose absorption ($p<0.05$). BM improved lipid profile. in addition, BM significantly increased liver glycogen content and reduced liver enzyme activity compared to the diabetic control. BM treatment of diabetic rats resulted in significant hypoglycemic and hypolipidemic effects as compared to rosiglitazone ($p<0.05$).
Significance: Results demonstrated anti-diabetic effects of bitter melon may be through increasing insulin release and serum insulin, increasing glucose uptake by muscles and decreasing intestinal glucose absorption and a hypolipidemic effect and this recommend its therapeutic use in diabetes.

Keywords: Momordica charantia; Diabetes; Glucose absorption; Rat diaphragm glucose uptake; Rosiglitazone maleate.

252. Nerve Conduction Velocity of Sciatic Nerve in High Fat Diet Induced Obesity in Rats: Effect of Corn Oil and Omega 3 Fatty Acids Supplement

Laila Ahmed El sayed, Samah Elattar and Nashwa Eltablawy

Life Science Journal, 9 (3): 2301-2314 (2012) IF: 0.073

Obesity is a major susceptibility factor leading to the development of various conditions of the metabolic syndrome. in obese rats, slowing of motor nerve conduction velocity was observed. Fatty acids metabolism disturbance is very important in the occurrence of peripheral neuropathy. the aim of this work is to consider the role that balanced diets high in omega 6&9 PUFA (corn oil) or supplying rats with omega 3, play in modulating the impaired nerve function in obese rats.
Methods: Thirty two adult male albino rats were randomly assigned to receive normal chow (NC) (n=8) or high fat diet HFD (n=24), for 12 weeks. After 12 weeks, body weight and body mass index(BMI) were measured and the NC group(n=8) continue their normal chow diet, Group 1 (NC) and served as a control group and the obese rats were randomly divided into 3 groups, 8 rats each: Group 2: Ob + HFD group, they continue their high animal fat diet, Group 3: Ob+HFD + corn oil group, they are obese rats received high fat diet containing corn oil and Group 4: Ob + HFD + Omega 3 group, they are obese rats, fed high animal fat diet supplemented with omega 3 (0.4 g/kg) daily. After five weeks, the final body weight was measured and BMI was calculated and blood samples were collected for measuring fasting plasma glucose level and insulin level and homeostasis model assessment of insulin resistance (HOMA-IR) test were evaluated. Plasma cholesterol, triglycerides and free fatty acids (FFAs) were measured.
The rats were then killed and sciatic nerves were carefully dissected for measuring the nerve conduction velocity (NCV). Superoxide dismutase activity (SOD), malondialdehyde (MDA) and tumor necrosis factor alpha (TNF?) were estimated in the nerve tissue of the 4 groups.
Results: the results of this study showed a significant increase of body weight (gm) and BMI (kg/m^2) in high fat diet group ($p< 0.05$) after 12weeks of the start of the diet when compared to the control group (NC).
There were significant elevations in the final weight (gm) and BMI (kg/m^2), a significant elevation in insulin level (?IU/l) and HOMA-IR test, a significant increase in nerve malondialdehyde (MDA), and tumor necrosis factor alpha (TNFα) and a significant decrease in superoxide dismutase activity (SOD) and nerve conduction velocity (NCV) (m/s) after 5weeks of high fat diet in (Ob+HFD) group, when compared to NC group. Changing diet composition for 5weeks in Ob+ HFD+corn oil and Ob+HFD+omega 3 groups, did not induce any significant variation in body weight, BMI, or fasting blood glucose level as compared to Ob+HFD group.
Insulin level (μIU/l) and HOMA-IR test were significantly decreased in Ob+ HFD+corn oil and Ob+HFD+omega 3 groups compared to Ob+HFD group. Plasma cholesterol levels (mg/dl), triglycerides (mg/dl), and free fatty acids (FFA) (mmol/l) were significantly decreased after 5weeks diet in Ob+ HFD+corn oil or Ob+HFD+ Omega 3 groups when compared to mean values of Ob+HFD group. Tissue malondialdehyde (MDA) and tumor necrosis factor alpha (TNFα) were significantly decreased but superoxide dismutase (SOD) activity was significantly increased in Ob+HFD+corn oil and Ob+HFD+omega3 groups compared to Ob+HFD. NCV(m/s) in Ob+HFD+ corn oil group was significantly increased compared to Ob+ HFD and their values in Ob+HFD+ corn oil group showed no significant variation as compared to NC group. While there was a significant increase in NCV in Ob+ HFD+Omega 3 group as compared to Ob+ HFD group, there was still a significant decrease compared to NC group.
Conclusion: the results of this study may have important clinical and speculative implications. Corn oil or omega 3 supplementation may be effective in obesity induced neuropathy. the mechanism of their effects is multifactorial including improving insulin sensitivity, correction of dyslipdemia, reducing oxidative stress and an anti-inflammatory effect.
This possibility should be carefully considered and examined in future trials of essential fatty acid supplementation.

Keywords: Nerve conduction velocity; Obesity; Oxidative stress; Inflammation; Corn oil; Omega3; Insulin resistance.

253. Role of Heme Oxygenase -1 Induction and Type 5 Phosphodiesterase Inhibition in Hepatic Ischemia Reperfusion Injury in Male Albino Rats

Hassan M. Eissa; Mohammad E. Saleh; Laila A. Elsayed and Hend A. Hassan

Life Science Journal, 9(3): 1711-1724 (2012) IF: 0.073

Objective: Ischemia and reperfusion (I/R) injury is a pathophysiologic process whereby hypoxic organ damage is accentuated following return of blood flow and oxygen delivery to the compromised tissue. Both hemeoxygenase producing carbon monoxide and nitric oxide synthase producing nitric oxide areinvolvedin cytoprotection against ischemia and reperfusion. the aim of the present study was to investigate the possible hepatic cytoprotective effects of pretreatment with cobalt (III) protoporphyrin IX chloride (Copp) and sildenafil citrate during ischemia,separately and in combination on hepatic I/R injury assessed by serum alanine transaminase (ALT),a marker of hepatic IR injury, and necrotic index.

Materials and methods: the study was carried out using fifty male albino rats belonging to the local strain age eight weeks with body weight 165 to 200 gm. Rat were divided randomly into five groups, each included 10 rats: group I(control sham-operated), group II(hepatic I/R, ischemia for 45 minutes followed byreperfusion for 2 hours), group III(Copp pretreatment and I/R), group IV (I/R with sildenafil injection during ischemia), and group V(Copp pretreatment and sildenafil injection during ischemia). After two hours of reperfusion followingischemia, animals were killed and blood is collected for serum ALT determination and hepatic tissues were used for determining histological evidence of hepatocellular injury assessed by necrotic index. Liver samples are also used for determining HO-1 gene expression and total hepatic nitrite content.

Results: Hepatic ischemia and reperfusion (groupII) resulted in hepatocellular injury as revealed by significant increases ($p< 0.05$) in mean value of serum levels of ALT and necrotic index. This was accompanied by significant ($p < 0.05$) increases in the mean values of hepatic HO-1 gene expression and total hepatic nitrite content compared to the control group. Induction of HO-1, by pretreatment of rats with Copp (group III) resulted in hepatocellular protection as evident by significant decreases ($p < 0.05$) in mean valuesof serum level of ALT and necrotic index. This was accompanied by significant increases in the mean values of hepaticHO-1 gene expression and insignificant change ($p >0.05$) in total hepatic nitrite content compared to group II. Sildenafil citrate injection during ischemia (group IV) also resulted in hepatocellular protection as evident by significant decreases($p < 0.05$) in mean values of serum levels of ALT and necrotic index accompanied by significant increases ($p < 0.05$) in the mean values of hepatic HO-1 gene expression and total hepatic nitrite content compared to group II. Compared to group III, sildenafil injection during ischemia produced insignificant changes ($p > 0.05$) in the mean value of serum level of ALT and necrotic index. However, HO-1 gene expressions was significantly ($p < 0.05$) decreased while total nitrite content was significantly ($p < 0.05$) increased. Compared togroupIIpretreatment of rats with Copp and Sildenafil injection during ischemia(group V) produced significant decreases ($p < 0.05$) in the mean value of serumlevels of ALT, necrotic index while hepatic HO-1 gene expression and total nitrite content were significantly($p < 0.05$)increasd. Compared to group III and IV by pretreatment of rats with Copp and Sildenafil injection during ischemia produced significant decreases ($p < 0.05$) in the mean value of serum levels of ALT and necrotic index while hepatic HO-1 gene expression and total nitrite content were significantly ($p < 0.05$) increased.

Conclusion: Induction of HO-1gene expression and inhibition of phosphodiesterase type 5 could have synergistic hepatoprotective effects against I/R injury. Further investigations are recommended for using agents that are not hepatotoxic and can protect the liver andother organs from I/R injury.

Keywords: Hepatic ischemic; Reperfusion injury; Heme oxygenase-1; Nitric oxide; Phosphodiesterase Type 5Inhibition.

Dept. of Physiology of the nervous system - nerve disease

254. Feasibility and Validation of Spinal Cord Vasculature Imaging Using High Resolution Ultrasound

Foad Abd Allah, Shahram Majidi, Masaki Watanabe, Saqib A. Chaudhry and Adnan I. Qureshi

J. Vasc Surg, 56: 637-643 (2012) IF: 3.153

A noninvasive method of visualization of the anterior spinal artery such as ultrasound that can be utilized in emergent or intraoperative settings can reduce the risk of spinal cord ischemia.

Objective: We assessed the feasibility of imaging and characterizing blood flow in the anterior spinal artery using ultrasound with concurrent validation using a cadaveric model.

Methods: We developed a protocol for ultrasonographic assessment of anterior spinal artery based on anatomic, morphologic, and physiologic characteristics of anterior spinal artery and determined the feasibility in 24 healthy research participants using high frequency probe (3-9 MHz) through the left lateral paramedian approach in the area between T8 and T12. We ascertained the detection rate, depth of insonation, and flow parameters, including peak systolic velocity, end diastolic velocity, and resistivity indexes for both segmental arteries and anterior spinal artery within the field of insonation. We validated the anatomical landmarks using simultaneous spinal angiography and simulated anterior spinal artery flow in a cadaveric set-up.

Results: We detected flow in all segmental arteries at different levels of our field of insonation with mean depth (standard deviation) of insonation at 3.9 0.7 cm identified by characteristic high resistance flow pattern. Anterior spinal artery was detected in 15 (62.5%) research participants at mean depth (standard deviation) of 6.4 1.2 cm identified by characteristic low resistance bidirectional flow. Age, gender, and body mass index were not correlated with either the detection rate or depth of insonation for anterior spinal artery. Simultaneous spinal angiography and simulated anterior spinal artery flow in a cadaveric set-up confirmed the validity of the anatomic landmarks by demonstrating concordance with results obtained from volunteer research participants.

Conclusions: the current study describes a technique for noninvasive imaging of spinal vasculature using ultrasound which may enhance our diagnostic capabilities in emergent and intraoperative settings.

Keywords: Spinal Vasculature; Ultrasound.

255. Role of Interleukin 6 and Alpha-Globulins in Differentiating Alzheimer and Vascular Dementias

Azza A. Helmy, Maged M. Abdel Naseer, Shahira El Shafie and Mona A.F. Nada

Neurodegener Dis, 9: 81-86 (2012) IF: 3.056

Inflammatory mechanisms and immune activation have been hypothesized to play a role in the pathogenesis of age-associated diseases, including Alzheimer's disease.
Purpose: the evaluation of inflammatory markers in patients with dementia, and to determine whether these markers can be used to differentiate between vascular dementia (VD) and Alzheimer's dementia (AD). Patients and Methods: Twenty demented patients (10 AD and 10 VD) and 20 non-demented controls were subjected to clinical evaluation, MRI brain scans and laboratory tests, including interleukin (IL) 6, C-reactive protein and serum protein electrophoresis.
Results: the results of this study revealed that serum levels of IL-6 and C-reactive protein were significantly elevated among patients with both types of dementia compared to normal elderly subjects. Although the mean IL-6 level was higher in patients with AD compared to patients with VD, this difference was not significant. the cutoff value at which the serum level of IL-6 gave maximum sensitivity and specificity was 14.25 pg/ml. Moreover, 1 - and 2 -globulins were able to discriminate between AD and VD (being significantly higher in AD).
Conclusion: IL-6 levels could beused to differentiate dementia from normal aging. Moreover, 1 - and 2 -globulins could differentiate between AD and VD. It can be concluded that inflammation plays an important role in both types of dementia.

Keywords: Alpha-1 Globulins; Alpha-2 Globulins; Alzheimer'S Dementia; Inflammatory Markers; Interleukin 6; Serum Protein Electrophoresis; Vascular Dementia.

256. Vitamin D Deficiency in Women with Fibromyalgia in Saudi Arabia

Noha T. Abokrysha

Pain Medicine, 13 (3): 452-458 (2012) IF: 2.346

The relation between low levels of 25-hydroxyvitamin D and nonspecific musculoskeletal pain, including fibromyalgia syndrome, is debatable. Many studies have reported "a positive relation" and others "found no relation." Objectives. to determine the prevalence of vitamin D deficiency among patients with fibromyalgia in aneurology clinic in the Kingdom of Saudi Arabia (KSA).
Methods: This study was done at a neurology clinic of Bugshan Hospital, Jeddah, KSA, from January to April 2011. Thirty female patients were diagnosed with fibromyalgia according to new clinical fibromyalgia diagnostic criteria; their serum vitamin D levels were screened. Vitamin D deficiency is defined as <20 ng/mL, vitamin D insufficiency is defined as 21–29 ng/mL, and vitamin D sufficiency is equal to or >30 ng/mL.
Result: Thirty female patients were included in the study. the mean age was 34.56 8.1 years. Mean vitamin D level was 4.76 1.46 ng/mL. A significant negative correlation between vitamin D level and widespread pain index was found. Thirty percent of the patients were Saudi Arabian of whom 100% were veiled; 70% were non-SaudiArabian of whom 47.6% were veiled and 52.4% wore long pants and/or full sleeved clothes. Vitamin Ddeficiency was equally prevalent among veiled (4.77 1.37 ng/mL) and nonveiled (4.75 1.68 ng/mL). Treatment with high-dose vitamin D resulted in clinical improvement in all patients.
Conclusion: Vitamin D deficiency is often seen in patients diagnosed with fibromyalgia in our population. This was equally true in veiled and nonveiled,but conservatively dressed populations. Effective treatment with high-dose vitamin D could lead to resolution of almost all symptoms. Further study of these populations and fortification of foods with vitamin D may be essential.

Keywords: Vitamin D; Fibromyalgia.

257. High Dose Erythropoietin Increases Brain Tissue Oxygen Tension in Severe Vasospasm After Subarachnoid Hemorrhage

Raimund Helbok, Ehab Shaker, Ronny Beer, Andreas Chemelli, Martin Sojer, Florian Sohm, Gregor Broessner, Peter Lackner, Monika Beck, Alexandra Zangerle, Bettina Pfausle, Claudius Thome and Erich Schmutzhard

Bmc Neurology, 12 (32): 2-6 (2012) IF: 2.167

Vasospasm-related delayed cerebral ischemia (DCI) significantly impacts on outcome after aneurismal subarachnoid hemorrhage (SAH). Erythropoietin (EPO) may reduce the severity of cerebral vasospasm and improve outcome, however, underlying mechanisms are incompletely understood. in this study, the authors aimed to investigate the effect of EPO on cerebral metabolism and brain tissue oxygen tension (PbtO2).
Methods: Seven consecutive poor grade SAH patients with multimodal neuromonitoring (MM) received systemic EPO therapy (30.000 IU per day for 3 consecutive days) for severe cerebral vasospasm. Cerebral perfusion pressure (CPP), mean arterial blood pressure (MAP), intracranial pressure (ICP), PbtO2 and brain metabolic changes were analyzed during the next 24 hours after each dose given. Statistical analysis was performed with a mixed effects model.
Results: A total of 22 interventions were analyzed. Median age was 47 years (32–68) and 86% were female. Three patients (38%) developed DCI. MAP decreased 2 hours after intervention ($P<0.04$) without significantly affecting CPP and ICP. PbtO2 significantly increased over time ($P<0.05$) to a maximum of 7 ± 4 mmHg increase 16 hours after infusion. Brain metabolic parameters did not change over time.
Conclusions: EPO increases PbtO2 in poor grade SAH patients with severe cerebral vasospasm. the effect on outcome needs further investigation.

Keywords: Cerebral microdialysis; Erythropoietin; Multimodality monitoring; Subarachnoid hemorrhage.

258. Carotid Atherosclerosis: Socio-Demographic Issues, the Hidden Dimensions

FoadAbd-Allaha, Noha Abo-Kryshaa and Essam Balighb

New Trends in Neurosonology and Cerebral Hemodynamics – an Update, (2012)

The effect of conventional vascular risk factors on carotid atherosclerosis had been reported in many studies. Little is known about social and demographic issues on the development of carotid artery disease among different populations. the aim of our study is to demonstrate the prevalence of carotid atherosclerosis

among Egyptians and its difference in relations to other studies from industrialized countries.
Methods: We analyzed the data of 4733 Egyptian subjects who underwent extracranial carotid duplex scanning at the vascular laboratories of the largest tertiary referral hospital in Cairo from January 2003 to January 2008. Demographic and clinical data were correlated with ultrasound findings.
Results: Atherosclerotic carotid artery disease was present in 41% of the study population, significant and high grade disease detected in 2.5% of the study populations. Multivariate stepwise logistic regression analysis selected age, hypertension and diabetes mellitus and dyslipidemia as independent predictors of the presence of carotid atherosclerotic disease.
Conclusion: Hemodynamically significant extracranial atherosclerotic carotid disease is rare in Egyptians. Risk factors for carotid atherosclerosis are the same as in societies where carotid disease is more prevalent.

Dept. of Psychology

259. Beliefs About Medications Predict Adherence to Antidepressants in Older Adults

Waleed Fawzi, Mohamed Yousry Abdel Mohsen, Abdel Hamid Hashem, Suaad Moussa, Elizabeth Coker and Kenneth C.M. Wilson

International Psychogeriatrics, 24 (1): 159-169 (2012) IF: 2.24

Adherence to treatment is a complex and poorly understood phenomenon. This study investigates the relationship between older depressed patients' adherence to antidepressants and their beliefs about and knowledge of the medication.
Methods: Assessment was under taken of 108 outpatients over the age of 55 years diagnosed with depressive disorder and treated for at least four weeks with antidepressants. Adherence was assessed using two self- repor t measures: the Medication Adherence Rating Scale (MARS) and a Global Adherence Measure (GAM). Potential predictors of adherence investigated included sociodemographic, medication and illness variables. in addition, 33 carers were inter viewed regarding general medication beliefs.
Results: 56% of patients repor ted 80% or higher adherence on the GAM. Sociodemographic variables were not associated with adherence on the MARS. Specific beliefs about medicines, such as "my health depends on antidepressants" (necessity) and being less worried about becoming dependant on antidepressants (concern) were highly correlated with adherence. General beliefs about medicines causing harm or being overprescribed, experiencing medication side-effects and severity of depression also correlated with poor adherence. Linear regression with the MARS as the dependent variable explained 44.3% of the variance and showed adherence to be higher in subjects with healthy speci?c beliefs who received more information about antidepressants and worse with depression severity and autonomic side-effects.
Conclusions: Our findings strongly suppor t a role for speci?c beliefs about medicines in adherence. Challenging patients' beliefs, providing information about treatment and discussing side-effects could improve adherence. Poor response to treatment and medication side-effects can indicate poor adherence and should be considered before switching medications.

Keywords: Compliance; Depression; Elderly; Side-Effects; Carers; Education; Cognition; Concordance.

Dept. of Public Health

260. Urinary Bladder Cancer Risk Factors in Egypt: A Multicenter Case–Control Study

Yun-Ling Zheng, Sania Amr, Doa'a A. Saleh, Chiranjeev Dash, Sameera Ezzat, Nabiel N. Mikhail, Iman Gouda, Iman Loay, Tamer Hifnawy, Mohamed Abdel-Hamid, Hussein Khaled, Beverly Wolpert, Mohamed A. Abdel-Aziz and Christopher Loffredo

Cancer Epidem Biomar, 6: 537-546 (2012) IF: 4.123

We investigated associations between tobacco exposure, history of schistosomiasis, and bladder cancer risk in Egypt.
Methods: Weanalyzed data from a case–control study (1,886 newly diagnosed and histologically confirmed cases and 2,716 age-, gender-, and residence-matched, population-based controls). Using logistic regression, we estimated the covariate-adjusted ORs and 95% confidence interval (CI) of the associations.
Results: Among men, cigarette smoking was associated with an increased risk of urothelial carcinoma (OR ¼ 1.8; 95% CI, 1.4–2.2) but not squamous cell carcinoma (SCC); smoking both water pipes and cigarettes was associated with an even greater risk for urothelial carcinoma (OR ¼ 2.9; 95% CI, 2.1–3.9) and a statistically significant risk for SCC (OR ¼ 1.8; 95% CI, 1.2–2.6). Among nonsmoking men and women, environmental tobacco smoke exposure was associated with an increased risk of urothelial carcinoma. History of schistosomiasis was associated with increased risk of both urothelial carcinoma (OR ¼ 1.9; 95% CI, 1.2–2.9) and SCC (OR ¼ 1.9; 95% CI, 1.2–3.0) in women and to a lesser extent (OR ¼ 1.4; 95% CI, 1.2–1.7 and OR ¼ 1.4; 95% CI, 1.1–1.7, for urothelial carcinoma and SCC, respectively) in men.
Conclusions: the results suggest that schistosomiasis and tobacco smoking increase the risk of both SCC and urothelial carcinoma.
Impact: This study provides new evidence for associations between bladder cancer subtypes and schistosomiasis and suggests that smoking both cigarettes and water pipes increases the risk for SCC and urothelial carcinoma in Egyptian men.

Keywords: Bladder cancer; Uc; Scc; Risk factors; Cigarette smoking; Waterpipe smoking; Schistosomiasis; Gender differences; Environmental tobacco smoke.

261. Microscopic Observation Drug Susceptibility Assay in the Diagnosis of Multidrug-Resistant Tuberculosis

O. Rasslan,S. F. Hafez, M. Hashem, O. I. Ahmed, M. A. S. Faramawy, W. S. Khater, D. A. Saleh, M. I. Mohamed, M. A. M. Khalifa, F. A. Shoukry and E. H. El-Moghazy

Int J Tuberc Lung D, 16 (7): 941-946 (2012) IF: 2.731

Background: Early detection of multidrug-resistant Mycobacterium tuberculosis (MDR-TB) is of primary importance for both patient management and infection control. Optimal methods for identifying MDR-TB in a timely and affordable manner in resource-limited settings are not yet available.
Objectives: to evaluate the performance of a lowtechnology but rapid drug susceptibility testing method, the microscopic observation drug susceptibility assay (MODS), in the concurrent detection of M. tuberculosis and its susceptibility to isoniazid (INH) and rifampin (RMP) directly from sputum specimens.
Methods: A total of 115 smear-positive TB patients admitted to

Abbasia Chest Hospital, Cairo, Egypt, were simultaneously tested using MODS and the BACTEC™ MGIT™ 960 mycobacterial detection system for the detection of M. tuberculosis and the identification of MDR-TB samples. RESULTS: MODS detected 112 (97.4%) samples and BACTEC MGIT detected 115 (100%). of the 115 isolates tested for susceptibility to INH, RMP and MDRTB, complete agreement between MODS and MGIT results was found among respectively 92.9%, 95.5% and 97.3% of samples. the sensitivity, specificity, and positive and negative predictive values of MODS in the detection of MDR-TB were respectively 95.3%, 98.6%, 97.6% and 97.1%. MODS results were obtained in a median of 8 days (range 5–21).
Conclusion: MODS is an optimal alternative method for timely and affordable identification of MDR-TB in resource-limited settings.

Keywords: Mycobacterium tuberculosis; Mdr-Tb; Mods; Bactec mgit 960; Egypt.

262. Assessment of Tobacco Dependence in Waterpipe Smokers in Egypt

Auf, R. A.; Radwan, G. N.; Loffredo, C. A.; El Setouhy, M.; Israel, E. and Mohamed, M. K

The International Journal of Tuberculosis and Lung Disease, 16 (1): 132-137 (2012) IF: 2.731

Waterpipe smoking is increasingly worldwide. Nevertheless, little is known about nicotine dependence in tobacco smokers who use waterpipes.
Objective: in the current work, we aimed to assess evidence of dependency among waterpipe smokers in Egypt who did not use cigarettes.
Methods: One hundred and fifty four male exclusive current waterpipe smokers were enrolled for the present study. We adapted the Fagerstrom test for nicotine dependence (FTND) and the reasons for smoking (RFS) scales and related these to smoking behaviors.
Results: Mean age of the subjects was 47±14 years, mean age of smoking initiation was 22±9 years, and average daily consumption was 4±8 hagars (tobacco units). Time to first smoking of the day ($p<0.001$), smoking even when ill ($p=0.003$), time to craving tobacco ($p<0.001$), and hating to give up the first smoking of the day ($p=0.033$) were each significantly associated with number of hagars smoked per day. the RFS subscales of addictive smoking, smoking to relieve negative affect, and smoking for stimulation were also associated with these variables.
Conclusion: the overall findings suggest that waterpipe smokers exhibit many of the same features of nicotine dependency attributed to cigarette smokers.

Keywords: Waterpipe smoking; Nicotine dependence; Rfs; Ftnd.

263. Public Opinion on Smoke-Free Policies Among Egyptians

G. N. Radwan, A. H. Emam, K. M. Maher, M. Mehrez, N. El-Sayed and G. M. El-Nahas

Int. J. Tuberc Lung D, 16 (10): 1412-1417 (2012) IF: 2.731

A smoke-free law was passed in 2007 and in 2010 its bylaw was issued and has led a drive to launch a smoke-free initiative by Ministry of Health and Population (MOHP) in Egypt which started in Alexandria, the second large city in Egypt.
Objective: to assess public opinion in regards to 100% smoke-free legislation and its implementation in Alexandria Governorate in Egypt.
Design: the Union Middle East Office in collaboration with the Central Agency for Public Mobilization and Statistics (CAPMAS) and the MOHP have conducted a cross sectional survey among 427 (206 males & 221 females) randomly selected adults covering the major 7 districts of Alexandria governorate.
Results: Almost all interviewed subjects (98%) expressed their support to the Government in enacting 100% smoke- free indoor legislation in all public places and transportation. Respondents endorsed the Government plan to implement the legislation ensuring 100% smoke-free public places. More than one third (33.5%) of all subjects indicated that they would increase the frequency of visits if the restaurants were smoke-free and 63% indicated no impact at all.
Conclusion: the results of the poll clearly support results concluded by different countries worldwide that smoke-free policies are popular and supported by the public.

Keywords: Opinion poll; Smoke-free Policies; Egypt.

264. An E-Learning Reproductive Health Module to Support Improved Student Learning and Interaction: A Prospective Interventional Study at A Medical School in Egypt

Rehab Abdelhai, Sahar Yassin, Mohamad F Ahmad and Uno GH Fors

Bmc Med Educ, 12 (11): (2012) IF: 1.152

The Public Health (PH) course at the medical college of Cairo University is based on traditional lectures. Large enrollment limits students' discussions and interactions with instructors. Aim: Evaluate students' learning outcomes measured by improved knowledge acquisition and opinions of redesigning the Reproductive Health (RH) section of the PH course into e-learning and assessing e-course utilization.
Methods: This prospective interventional study started with development of e-learning course covering the RH section, with visual and interactive emphasis, to satisfy students' diverse learning styles. Two student groups participated. the first received traditional lecturing, while the second volunteered to enroll in the e-learning course, taking online course quizzes. Both groups answered knowledge and course evaluation questionnaires and were invited to group discussions. Additionally, the first group answered another questionnaire about reasons for non-participation.
Results: Students participating in the e-learning course showed significantly better results, than those receiving traditional tutoring. Students who originally shunned the e-course expressed eagerness to access the course before the end of the academic year. Overall, students using the redesigned e-course reported better learning experiences.
Conclusions: an online course with interactivities and interaction, can overcome many educational drawbacks of large enrolment classes, enhance student's learning and complement pit-falls of large enrollment traditional tutoring.

Keywords: on-Line learning; E-Learning; Reproductive health; Public health; Medical education; Egypt.

265. Implementation, Barriers and Challenges of Smoke-Free Policies in Hospitals in Egypt

Ghada Nasr Radwan, Christopher A Loffredo, Rasha Aziz, Nagah Abdel-Aziz and Nargis Labib

Bmc Research Notes, 5 (568): 1-9 (2012)

Tobacco use is a serious public health challenge in North Africa, and health professionals play a vital role in tobacco control. in Egypt, limited data are available on the knowledge and attitudes of health care providers regarding tobacco control policies. Such data are especially relevant due to Egypt's tobacco control laws, adopted in 2007, prohibiting smoking in hospitals and other public places. This study surveyed 49 senior administrative staff, 267 physicians, 254 nurses, and 109 administrative employees working in El-Kasr El-Aini Hospital in Cairo, assessing their knowledge and attitudes regarding Egypt's tobacco control laws and barriers to their effective implementation in health care facilities. We also investigated the hospital's compliance with smoke-free policies.

Results: the majority (>90%) of the hospital workers knew that exposure to second-hand smoke is harmful to health. Physicians and nurses had a more favorable attitude towards the smoking ban when compared to administrative employees. Hospital staff identified the following barriers to successfully implementing the smoking ban: lax enforcement of tobacco control laws, the lack of penalties for violators, the lack of cessation programs, and the prevalence of smoking among physicians.

Conclusions: Overall, smoke-free policies were poorly enforced in this large teaching hospital in Cairo, Egypt. Interventions to address the identified barriers to their implementation could include the provision of cessation training and services as well as effective communication programs to educate health care workers at all levels regarding the dangers of second-hand smoke exposure and effective measures for protection.

Keywords: Health care staf; Fctc; Smoke-free policies.

266. Differential Characteristics of the Diabetes Epidemic Across Global Regions

Wasantha Jayawardene, Ahmed YoussefAgha, Samer Mattar, Nargis Labib and Mohammad Torabi

The International Journal of Health, Wellness and Society, 1 (4): 62-80 (2012)

This study performs a systematic review on the global distribution of diabetes, impaired glucose tolerance (IGT), and significance of risk factors for diabetes in various regions. A Medline search of articles from 1990 was conducted to identify 91 studies representing 57 countries considering year, sample characteristics, and diagnostic criteria.

Review was performed with World Health Organization classification of regions. Prevalence of diabetes was highest in Americas (14.8%), followed by Eastern-Mediterranean. Prevalence of IGT is highest in South-East Asia (12.1%), followed by Americas. Women have a higher prevalence of diabetes/IGT in many regions.

Urban areas have a higher prevalence. Undiagnosed cases are higher in developing countries. Obesity is the most potent risk factor for diabetes, followed by older age, and central-obesity. Diabetes/IGT prevalence is higher in women than in men, and diabetes prevalence is remarkably higher in urban areas than in rural areas. Primary prevention is emphasized in developing regions. Interventions, which lead to lifestyle modifications, will reduce or delay the occurrence of diabetes. Early detection of undiagnosed cases of diabetes in developing countries is stressed.

Keywords: Diabetes; Impaired glucose Tolerance; Prevalence; Risk factors.

Dept. of Rheumatology

267. Lichen PlanusIn Association With Adult-Onset Still's Disease Successfully Treated With MycophenolateMofetil

Yasser Emad, Yasser Ragaband Nashwa El-Shaarawy

The Journal of Rheumatology, 39 (6): 1305-1306 (2012) IF: 3.85

A 55-year-old woman presented with acute onset of spiking fever, symmetricpolyarthritis with intense myalgia, and sore throat. Onset was associatedwith diffusely itchy purple papules involving the trunk, anteriorchest wall, and upper and lower limbs. Initial laboratory investigationshowed elevated erythrocyte sedimentation rate (90 mm/h), elevatedC-reactive protein (17.8 mg/dl), negative rheumatoid factor (RF), negativeanti-citrullinated protein antibody, and negative antinuclear antibody (ANA). Complete blood count showed leukocytosis with white blood cellcount 14.7 × 103/μl, anemia with hemoglobin 9.6 g/dl, thrombocytosis withplatelet count 802 × 103/μl, and 2-fold increase in serum ferritin levels (350ng/ml, normal values up to 150 ng/ml). Other laboratory investigationsshowed elevated liver enzymes [aspartate transaminase 69 IU/l, alaninetransaminase 125 IU/l, and elevated creatine phosphokinase (CPK) levels320 IU/l, normal 40–120 IU/l] with negative virology screening for viralhepatitis. Skin biopsy showed focal thinning of the epidermis with focaldestruction of basal layers and focal dermal mononuclear infiltrate, featuresconsistent with the diagnosis of lichen planus (LP; Figure 1). No historyof medications known to induce LP was given by the patient.The case fulfilled the Yamaguchi criteria for classification ofadult-onset Still's disease (AOSD)1, with the presence of 3 major criteria(spiking fever, arthritis, and leukocytosis) and 3 minor criteria (sore throat,liver dysfunction, and negative ANA and RF).

268. Knee Enthesitis and Synovitis on Magnetic Resonance Imaging in Patients with Psoriasis Without Arthritic Symptoms

Yasser Emad, Yasser Ragab, Tamer Gheita, Ashraf Anbar, Hoda Kamal, Ahmed Saad, Hanan Darweesh, Nashwa El-Shaarawy, Amr Azab, Ahmed Ismailm Johannes J. Rasker and Knee Enthesitis

The Journal of Heumatologyr, 39 (10): 1979-1986 (2012)
IF: 3.695

This case-control study was designed to evaluate magnetic resonance imaging (MRI) findings of knee joints in patients with psoriasis without clinical peripheral or axial joint involvement, and to correlate MRI findings with disease and demographic variables.

Methods: in total 48 patients with psoriasis and no clinical evidence of synovitis or enthesitis in any peripheral or axial joints were enrolled. A random sample of 20 healthy subjects without knee or other joint complaints and matched for age and sex served as controls. All patients and controls

underwent enhanced MRI studies of both knee joints, and MRI findings were compared.

Results: Among 48 patients (96 knees), a total of 90 entheseal lesions were detected, with no enthesitis in 2 cases (6.3%). Signs of continuing inflammation bilaterally were frequently found: soft tissue edema (STE; n = 52), bone marrow edema (BME; n = 20), perientheseal BME (n = 3), cartilaginous erosions (n = 42), and bone erosions (n = 27). in controls, 2 (10%) subjects had BME and another 5 (25%) showed cartilaginous erosions. None showed evidence of enthesitis. Significant correlations were observed between the number of entheseal lesions of both knees vs. STE (present vs. absent; r = 0.314, p = 0.030) and STE (number of lesions; r = 0.351, p = 0.014). Enthesitis (unilateral vs. bilateral) was significantly and positively correlated with STE (r = 0.304, p = 0.036), cartilaginous erosions (r = 0.304, p = 0.036), and villous projections (r = 0.347, p = 0.016).

Conclusion: Subclinical synovitis and enthesitis are frequently found in the knee joint of patients with psoriasis. These may be an early sign of psoriatic arthritis.

Keywords: Knee enthesitis; Enhanced magnetic resonance imaging; Psoriasis; Subclinical synovitis; Seronegative spondyloarthropathy.

269. Giant Intraosseous Synovial Cyst with Intraarticular Communication with the Ankle Joint in Longstanding Rheumatoid Arthritis

Yasser Emad Amin, Yasser Ragab, Nashwa El-Shaarawy and Ahmed Kamal

The Journal of Rheumatology, 39 (1): 180-181 (2012) IF: 3.695

The term “intraosseous synovial cyst” is used to designate the epiphyseal cyst-like lesions seen in a variety of clinical settings. Extraarticular synovial cysts in rheumatoid arthritis (RA) have rarely been documented in case reports. the same is true for giant intraosseous synovial cysts with intraarticular communication. We describe an adult case of RA with uncontrolled disease, involving a giant intraosseous synovial cyst in the lower end of the tibia and communicating with the ankle joint. A 56-year-old woman with longstanding aggressive RA presented with chronic pain around the ankle joint of 6months’ duration. After control of synovitis with a combination of disease-modifying antirheumatic drugs, the patient still complained of pain around the right ankle and the lower end of the tibia. Magnetic resonance imaging (MRI) was done to further evaluate the cause of the pain. A contrast-enhanced MRI study showed evidence of a giant intraosseous synovial cyst at the lower end of the tibia and other evidence of destructive changes in the ankle joint in the form of erosive bone changes and hypertrophic synovial membrane.

Keywords: Giant Intraosseous Synovial Cyst; Rheumatoid Arthritis.

270. Plasma Concentrations of Growth Arrest Specific Protein 6 and the Soluble Form of Its Tyrosine Kinase Receptor Axl in Patients with Systemic Lupus Erythematosus and Behçets Disease

Tamer A. Gheita, Iman H. Bassyouni and Rasha H. Bassyouni

J. Clin Immunol, 32: 1279-1286 (2012) IF: 3.077

Purpose the aim of the present study was to investigate plasma concentrations of Gas6 and its soluble tyrosine kinase receptor sAxl in Systemic lupus erythematosus (SLE) and Behçets disease (BD) patients and to correlate those levels with clinical and laboratory manifestations of the diseases. Methods the study included 89 female SLE and 49 male BD patients. Twenty-seven age and sex matched healthy volunteers served as controls. All patients were subjected to full clinical examination, laboratory investigations and assessment of disease activity. Plasma concentrations of Gas6 and sAxl were quantified using ELISA technique. Results the level of Gas6 and Axl were significantly altered in the SLE patients ($p<0.001$) and in the BD patients (p 0.001 and 0.04 respectively) compared to those of the control. in SLE, the Gas6 was remarkably lower in those with class 1 lupus nephritis and in those with neuropsychiatric manifestations. in the BD patients, the level of Axl was significantly increased in those with neurological disease activity. the number of lymphocytes significantly negatively correlated with the gas6 and Axl levels significantly correlated with the number of neutrophils and negatively with the lymphocytic count in the BD patients. Conclusion the plasma concentrations of Gas6 and Axl were significantly altered in SLE and BD patients, suggesting that the Axl receptor shedding is an active process affected by and influences Gas6-mediated Axl signaling in both diseases. Special attention is required in SLE patients with early lupus nephritis and neuropsychiatric manifestations and BD patients presenting with neurological disease activity. the relation with lymphocytes and neutrophils in BD throws light on the role of gas6 and Axl on their known resistance to cell death. Although the mechanisms responsible for the initiation of BD remain to be clarified, the role of the apoptotic process seems critical throughout the disease.

Keywords: Growth arrest specific protein 6 (Gas6); Tyrosine kinase receptor axl; Systemic lupus erythematosus (Sle); Behçets disease.

271. Elevated Serum Osteopontin Levels in Chronic Hepatitis C Virus Infection: Association with Autoimmune Rheumatologic Manifestations

Iman H. Bassyouni, Rasha H. Bassyouni, Nermin H. Ibrahim and Ahmed F. Soliman

J. Clin Immunol, 32: 1262-1269 (2012) IF: 3.077

Owing to the suggested role of osteopontin (OPN) in inflammation, autoimmunity and fibrosis, we investigated their serum concentrations in chronic hepatitis C virus (HCV) infected patients with and without autoimmune manifestations and correlated those levels to clinical manifestations and the histological severity of hepatic fibrosis. A total of 70 chronic HCV-infected patients (35 with and 35 without autoimmune rheumatic manifestations) were compared with 35 healthy volunteers matched for age and gender. Epidemiological, clinical, immunochemical and virological data were prospectively collected. OPN serum levels were assessed by an Enzyme Linked Immunosorbant Assay.

The mean serum OPN levels were higher in HCV patients with autoimmune rheumatologic manifestations and in patients without; than that for the normal controls (p=0.000). the mean OPN values progressively increased by increasing severity of liver fibrosis (p=0.009). Multivariate analysis revealed that the presence of rheumatologic manifestations had the highest predictive value (b=7.141, Beta=0.414, p= 0.000) followed by liver fibrosis (b=4.522, Beta=0.444, p=0.000) on the variation of OPN levels in our HCV patients. Among the group of patients with HCV and rheumatologic involvement, OPN serum levels were higher in patients with positive cryoglobulin and rheumatoid

factor than in those without, and with systemic vasculitis than in those without. Correlation analysis didn't reveal any statistical significance of OPN with age, serum albumin, aminotransferases and viral load. Our data suggests OPN as a promising marker for HCV associated autoimmune rheumatologic involvement, particularly with regard to development of vasculitis and cryoglobinemia. in addition, it could serve as a biomarker to evaluate the severity of liver damages in HCV infected subjects.

Keywords: Osteopontin; Autoimmunity; Hepatitis C Virus; Liver fibrosis.

272. Clinical Significance of Soluble-Endoglin Levels in Systemic Lupus Erythematosus: Possible Association with Anti-Phospholipid Syndrome

H Bassyouni, R El-Shazly, GS Azkalany, A Zakaria and RH Bassyouni

Lupus, 21: 1565-1570 (2012) IF: 2.337

Aim: the pathogenic role of soluble endoglin (s-Eng), as an anti-angiogenic protein, has largely been demonstrated in various vascular disorders. Our aim was to assess, in a cross sectional study, plasma levels of s-Eng in systemic lupus erythematosus (SLE) patients and its relation with the disease characteristics'.
Patients and methods: Plasma from 86 patients with SLE and 36 normal healthy subjects were assayed for s-Eng levels by Enzyme Linked Immunosorbant Assay (ELISA). Demographic, clinical, autoantibodies and serological data were prospectively assessed. Disease activity was assessed by total SLE disease activity index score.
Results: in our SLE patients, the levels of s-Eng were comparable between SLE patients and the control group. However, these levels were significantly associated with anti-phospholipid syndrome (APS). in addition, s-Eng levels were significantly associated with anti-phospholipids antibodies in our studied population. on the other hand, we did not find significant differences in mean plasma s-Eng levels in relation to disease activity, other organ system involvement or the presence of anti-dsDNA.
Conclusion: Our preliminary data indicated the importance of s-Ang in a special subgroup of SLE patients associated with secondary APS. an additional prospective large scale, longitudinal study should be carried out to support these findings.

Keywords: Angiogenesis; Anti-Phospholipid Syndrome; Endoglin; Pulmonary Artery Hypertension; Systemic Lupus Erythematosus.

273. Evaluation of Microalbuminuria in Patients with Systemic Sclerosis as an Indicator of Early Renal Damage and Increased Morbidity

Somaya A. Hussien, Doaa Abbas Eid, Manal M. Kamal and Doaa H. Sayed

The Egyptian Rheumatologist, 34: 19-25 (2012) IF: 2

Renal involvement and systemic vascular damage have been shown to be significantly affecting prognosis in systemic sclerosis.
Aim of work: Microalbuminuria detection in SSc patients as an indicator of early renal involvement and its correlation with various SSc clinical, laboratory parameters and severity of organ systems' damage assessed by Scleroderma Assessment Questionnaire.
Patients and methods: Forty SSc patients (33 females and 7 males) with mean age of 27.48 ±12.56 years and mean disease duration of 6.2±4.14 years were included. Twenty-four (60%) had lSSc; 13 (32.5%) had dSSc and 3 (7.5%) patients had SSc sine scleroderma.
Results: Eight (20%) had microalbuminuria and 9 (22.5%) patients had decreased creatinine clearance. Albumin/creatinine ratio was significantly higher among dSSc patients compared to those with lSSc and SSc sine scleroderma (X2 =9.077; p=0.01). Albumin/creatinine ratio showed significant positive correlations with telangiectasia (r = 0.322; p= 0.04) and mRodnan's skin score.

Keywords: Scleroderma; Renal involvement; Microalbuminuria; Creatinine clearance; Scleroderma assessment questionnaire.

274. Interleukin-27 and its Relation to Disease Parameters in Sle Patients

Wafaa Gaber, Safaa Sayed, Hanaa M. Rady and Abeer M. Mohey

Egyptian Rheumatologist, 34: 99-105 (2012) IF: 2

Introduction: IL-27 exerts profound anti-inflammatory effects in several experimental autoimmune models, suggesting that it may be therapeutically relevant in SLE.
Aim of the work: to evaluate IL-27 level in SLE patients and its association to clinical manifestations, disease activity parameters and management strategy.
Patients and methods: We studied 80 SLE patients and 50 controls in a cross sectional study. Demographic, clinical and serological data were evaluated. Systemic lupus erythematosus disease activity index (SLEDAI) and Systemic Lupus International Collaboration Clinics/ACR damage index (SLICC) were assessed. Serum IL-27 was measured by ELISA.
Results: There was statistically significant difference in IL-27 level in SLE patients and healthy controls (9.7 ± 21.9 pg/ml vs 20.2 ± 47.3 pg/ml in SLE vs controls, respectively) (p= 0.04), also it was found that IL-27 level was statistically significantly lower in SLE patients with lupus nephritis (p= 0.02) and cerebritis (p= 0.03). Interleukin 27 level had a statistically significant negative correlation with the cumulative dose of hydroxychloroquine and azathioprine (r =_0.3, p=0.03 and r = _0.3 and p= 0.04, respectively).
Conclusion: IL-27 has anti-inflammatory effect in SLE patients especially those without nephritis or cerebritis and can be therapeutically relevant in SLE. to confirm our results we propose larger scale, multicentre studies with longer evaluation periods

Keywords: Interleukin-27; Lupus nephritis; Lupus cerebritis.

275. Comparative Study of Kidney Affection in Sle Patients with and Without Antiphospholipid Syndrome

Wafaa Gaber, Safaa Sayed, Yasser Ezzat, Tamer Wahid Kassem and Haytham Khalil

Egyptian Rheumatologist, 34: 51-57 (2012) IF: 2

Aim of the work: to evaluate the incidence, clinical associations and outcome of APS nephropathy in SLE patients with 2ry APS
Patients and methods: We studied 64 female SLE patients with nephritis; 32 of them had 2ry APS (group 1) and the rest without

2ry APS (group 2). Demographic, clinical and serological data were prospectively evaluated. Systemic lupus erythematosus disease activity index (SLEDAI) and Systemic Lupus International Collaboration Clinics/ACR damage index (SLICC) were assessed. Renal duplex, renal 99mTc-dimercaptosuccinic) scan (DMSA scan) and renal magnetic resonance angiography (MRA) were all used to detect renal vascular affection.
Results: There were statistically significant differences between the two examined groups regarding damage index (p=0.000), hypertension (p= 0.02), thrombocytopenia (p= 0.000), LDL (p= 0.008), C3 (p= 0.01) and TMA (p=0.04). in group 1: MR angiography detected 7 patients with RAS: 5 patients with renal artery thrombosis that showed a significant association with TMA and proteinuria (p= 0.002, p=0.004: p< 0.001, p= 0.02, respectively). Patients with RAS had ?DBP, ?s.creatinine and ?TGs (p= 0.004, p= 0.005 and p=0.0003, respectively). Renal DMSA detected 6 patients with cortical scar which showed a significant association with TMA, proteinuria, livedoreticularis and arthritis (p= 0.001, p= 0.01, p= 0.04 and p=0.03, respectively) those patients had ›DBP and ›RI (p=0.000 and p= 0.006, respectively).
Conclusion: aPL testing should become a routine investigation in patients evaluated for RAS or renal infarctions especially with hypertension and unexplainable deteriorating renal function. to confirm our results we propose that larger scale, multicentre studies with longer evaluation periods.

Keywords: Renal dmsa; Renal mra; Aps nephropathy; Systemic lupus erythematosus.

276. Thrombotic Thrombocytopenic Purpura Associated with Chronic HCV Infection

Ayman El Garf, Wafaa Gaber, Tamer Elbaz and Kamal El Garf

The Egyptian Rheumatologist, 34: 107-110 (2012) IF: 2

Thrombotic thrombocytopenic purpura is a potentially lethal microvascular thrombotic disorder.
Case presentation: in this study, we report a 32 years old woman who suffered from undifferentiated vasculitis with marked improvement on steroids and cyclophosphamide. Two years later, hepatitis C virus infection was discovered. Decision for interferon therapy was not recommended at this stage and the patient remained stable for the following 7 years. in January 2009, pegylated interferon and ribavirin were started due to worsening of her hepatitis; the treatment was stopped after 12 weeks due to the absence of any virologic response. Fourteen months later, she developed severe uncontrolled thrombotic thrombocytopenic purpura that led eventually to her death.
Conclusion: We report this rare case of thrombotic thrombocytopenic purpura that may directly be related to chronic HCV infection rather than to interferon therapy.

Keywords: Thrombotic thrombocytopenic purpura; Vasculitis; Hcv; Interferon.

277. Shrinking Lung Syndrome in Systemic Lupus Erythematosus Patients with Dyspnea

Tamer A. Gheita, Sherine El-Mofty, Samar M. Fawzy and Hussein El-Fishawy

The Egyptian Rheumatologist, 34: 179-183 (2012) IF: 2

Aim of the work: to identify the frequency of shrinking lung syndrome (SLS) in systemic lupus erythematosus (SLE) with dyspnea and study the clinical characteristics and differences in disease activity and damage.
Patients and methods: the study included 47 SLE patients complaining of dyspnea. SLS was considered in those with exertional dyspnea, restrictive pulmonary function tests (PFTs) and elevated copula of the diaphragm.
Full history taking, thorough clinical examination, laboratory and relevant radiological investigations were performed for all the patients. Systemic Lupus Erythematosus Disease Activity Index (SLEDAI) and Systemic Lupus International Collaborating Clinics (SLICC) indices were compared. High resolution CT chest was performed for patients with radiological findings consistent with SLS.
Results: the mean age of the patients was 29.43 ± 7.45 years, mean disease duration 5.18 ± 3.62 years. the SLS was present in 8 patients (17.02%). There was bilateral elevation of the diaphragm copulae in 25% of SLS patients and two had associated basal atelectatic bands. the serum uric acid was significantly higher in those with SLS while the 24 h urine protein was significantly lower and C4 normalized. the levels of SLEDAI and SLICC tended to be lower in those with SLS, yet there was no significant difference from those without. the demographic features, clinical and laboratory manifestations, disease activity and damage scores, PFTs and radiological findings of the SLE patients are presented.
Conclusion: in SLE patients with dyspnea, SLS should be looked for as it is present in a high proportion of cases.

Keywords: Systemic lupus erythematosus (Sle); Shrinking lung syndrome; Dyspnea; Sledai.

278. Clinical Significance of Serum TNFα and -308 G/A Promoter Polymorphism and Serum Il-6 and -174 G/C Promoter Polymorphism in Systemic Lupus Erythematosus Patients

Ghada S. Azkalany, Tamer A. Gheita, Wafaa Gaber and Abeer Mohey

The Egyptian Rheumatologist, 34: 119-125 (2012) IF: 2

Introduction: Systemic lupus erythematosus (SLE) is a disorder of immune regulation where cytokine imbalance and genetic factors are implicated in its pathogenesis.
Aim of the work: to evaluate the clinical significance of serum levels of tumor necrosis factor alpha (TNFα) and its -308 G/A promoter polymorphism as well as the IL-6 and -174 promoter polymorphism in SLE patients and find any association to the clinical and laboratory features as well as to the disease activity and severity.
Patients and methods: We studied 37 female SLE patients and age and gender matched healthy control. Demographic, clinical and serological data were evaluated and the Systemic Lupus Erythematosus Disease Activity Index (SLEDAI) and the Systemic Lupus International Collaboration Clinics/ACR Damage Index (SLICC) were assessed. Serum TNF-α and IL-6 levels were measured using enzyme-linked immunosorbent assay (ELISA) and DNA genotyped for TNF-α promoter (-308 G/A) and IL-6 promoter (-174 G/C) by polymerase-chain reaction-restriction fragment-length polymorphism (PCR-RFLP) analysis

Keywords: Tnf-A; Il-6;Tnf-α (-308 G/A); (-174 G/C) Promoter Polymorphism; Systemic lupus erythematosus.

279. High-Sensitivity C-Reactive Protein (Hs-Crp) in Systemic Lupus Erythematosus Patients Without Cardiac Involvement; Relation to Disease Activity, Damage and Intima-Media Thickness

Tamer A. Gheita, Iman I. El-Gazzar and Ghada Azkalany

The Egyptian Rheumatologist, 34: 147-152 (2012) IF: 2

Aim of the work: to assess the high sensitivity C-reactive protein (hs-CRP level) in systemic lupus erythematosus (SLE) patients without cardiac involvement and find its relation with clinical and laboratory findings, disease activity, damage index and intima-media thickness (IMT).

Patients and methods: Forty-five female SLE patients were recruited in the present study without any cardiac involvement. History taking, examination and laboratory investigations were performed for patients. Disease activity was evaluated by the Systemic Lupus Erythematosus Disease Activity Index (SLEDAI) and damage by the Systemic Lupus International Collaborating Clinics (SLICC) index. Thirty age matched female healthy subjects were considered as a control group. hs-CRP was measured quantitatively by microplate immunoenzymometric assay and the IMT measured by ultrasonography.

Results: the hs-CRP in the patients was significantly higher (4.84 ± 3.91 mg/l) compared to the control (1.74 ± 0.61 mg/l) (p< 0.001). the IMT in the patients was significantly increased (0.72 ±0.37 mm) compared to the control (0.54 ± 0.15 mm) (p 0.004). There was no difference in the level of hs-CRP according to the presence or absence of clinical manifestations. However, it was significantly higher in those with positive DNA (5.71± 4.36 mg/L) compared to those with negative results (3.12 ± 1.97 mg/L) (p 0.009). There was a significant correlation of the hs-CRP level with the IMT (r 0.49, p 0.001) and SLEDAI (r 0.67, p< 0.001).

Conclusions: These findings suggest that SLE patients without traditional major cardiovascular risk factors may have increased risk of future cardiac events. Measuring hs-CRP may be useful as a marker of disease activity, increased IMT and subclinical atherosclerosis in SLE especially those with positive ds-DNA.

Keywords: High Sensitivity C-Reactive; Protein (Hs-Crp); Systemic Lupus Erythematosus (Sle); Sledai; Slicc; Intima-Media Thickness (Imt).

280. Elevated Serum Trail Levels in Scleroderma Patients and Its Possible Association with Pulmonary Involvement

Noha A. Azab, Hanaa M. Rady and Samar A. Marzouk

Clin Rheumatol, 31 (9): 1359-1364 (2012) IF: 1.996

Tumor necrosis factor-related apoptosis-inducing ligand (TRAIL) has been reported to be involved in the pathophysiology of some autoimmune diseases as systemic lupus erythematosus, ankylosing spondylitis, and multiple sclerosis. the aim of this study was to assess serum TRAIL concentration in systemic sclerosis (SSc) patients and to investigate its possible association with various disease parameters.

Thirty SSc patients as well as 25 rheumatoid arthritis (RA) patients and 25 healthy volunteers were included in the present study.

Organ system involvement in SSc patients was investigated. Pulmonary function tests as well as chest high-resolution computed tomography (HRCT) were done to detect pulmonary involvement in our patients.

TRAIL concentrations were measured in the sera of SSc patients, RA patients and healthy controls by enzymelinked immunosorbent assay.Mean serum TRAIL levels were significantly higher in SSc patients than in the control RA patients and in healthy controls (p<0.001)while they were not significantly different between patients with diffuse cutaneous SSc and patients with limited cutaneous scleroderma.

Serum TRAIL levels were significantly higher in SSc patients with pulmonary involvement and were significantly correlated with HRCT scores.

Serum TRAIL levels are significantly elevated in SSc patients and are associated with SSc-associated pulmonary involvement denoting a possible role of TRAIL in the pathogenesis of SSc. Further studies may be needed to confirm these findings and the possible use of TRAIL in detection and possibly treatment of SSc-associated pulmonary disease.

Keywords: Pulmonary involvementp; Systemic sclerosis; Tumor necrosis factor-related apoptosis-inducing ligand (Trail).

281. The Practical Value of Biologics Registries in Africa and Middle East: Challenges and Opportunities

Najia Hajjaj-Hassouni, Marzooq Al-Badi, Ala' Al-Heresh, Samar Al-Emadi, Ahmed El Bawendi, Ayman El Garf, Khaled El Hadidi, Hussein Halabi, Mohammed Hammoudeh, Selma El Hassani, Mustafa Al Maaini, Ibrahim Nahar, Aïcha Ladjouze Rezig, Slaheddine Sellami, Wafaa Sweiri, Ramiz Alswailem, Beverly Traub, Imad Uthman, Elsa van Duuren, Leith Zakraoui, Bassel El Zorkany, Loreto Carmona and Maxime Dougados

Clin Rheumatol, 31: 407-416 (2012) IF: 1.996

Biologics, including tumor necrosis factor (TNF) inhibitors, are increasingly used for the treatment of inflammatory conditions such as rheumatoid arthritis (RA), psoriatic arthritis, and ankylosing spondylitis. the efficacy of these drugs has been demonstrated in randomized controlled trials (RCTs). However, these studies are conducted in controlled environments, and the results may not necessarily reflect clinical outcomes in daily clinical practice. in Europe and other western countries, numerous biologics registries that enroll and monitor patients receiving biologics have been established.

These registries follow patients irrespective of whether they continue with the initial biologic drug. Thus, real-life efficacy data from these registries can be used to assess the long-term safety of biologics through longitudinal studies.

In Africa and Middle East (AFME), such registries currently exist only in Morocco and South Africa. in light of the increasing availability of biologics and scarcity of long-term safety data of these agents in the AFME population, there is a need to establish biologics registries in other countries across the region.

This review discusses the value of biologics registries versus RCTs as well as safety and efficacy data from observational studies presented as lessons from well-established biologics registries. in addition, the rationale for establishing such registries in the AFME region is also presented.

Keywords: Africa and middle east; Biologics; Registries; Rheumatoid arthritis; Safety; Tumor necrosis factor inhibitors.

282. Early Diagnosis and Treatment of Ankylosing Spondylitis in Africa and the Middle East

Bahiri Rachid, Bassel El Zorkany, Ehab Youseif and Mohammed Tikly

Clin Rheumatol, (2012) IF: 1.996

Ankylosing spondylitis (AS) is the prototype for spondyloarthritis primarily affecting young men. Geographic and ethnic variations exist in the prevalence and severity of AS and relate to the wide disparity in the frequency of human leukocyte antigen (HLA)-B27, a major genetic risk factor. the strength of the disease association with HLA-B27 is lower in most Arab populations (25–75 %) than in Western European populations (>90 %), and there is no association in sub- Saharan Africa, where the prevalence of HLA-B27 is <1 %. Other epidemiologic differences between European and African populations are the apparent later age at presentation in sub-Saharan Africa, and the high rate of spondyloarthropathies associated with human immunodeficiency virus infection.

Diagnosis of AS is often delayed 8–10 years; potential reasons for the delay in Africa and the Middle East include low awareness among physicians and patients, the requirement for radiographic evidence of sacroiliitis for diagnosis, and limited access to magnetic resonance imaging in some countries. Treatment should be initiated early to prevent or reduce skeletal deformity and physical disability. Nonsteroidal anti-inflammatory drugs are effective first-line treatment and anti-tumor necrosis factor-α drugs are indicated for patients who have an inadequate response to first-line therapy. In Africa and the Middle East, such treatments may be precluded either by cost or contraindicated because of the high prevalence of latent tuberculosis infection. Research is sorely needed to develop cost-effective tools to diagnose AS early as well as effective, inexpensive, and safe treatments for these developing regions.

Keywords: Africa; Ankylosing spondylitis; Diagnosis; Hla-B27; Middle east.

283. Transient Osteoporosis of the Hip, Complete Resolution after Treatment with Alendronate as Observed by Mri Description of Eight Cases and Review of the Literature

Yasser Emad, Yasser Ragab, Nashwa El-Shaarawy and Johannes J. Rasker

Clinical Rheumatology, 31: 1641-1647 (2012) IF: 1.996

Transient osteoporosis of the hip (TOH), also referred to as transient bone marrow edema syndrome, is most common in middle-aged men and often after trivial trauma or sport-related injuries. Diagnosis is usually made by eliminating other possible causes of hip pain. Magnetic resonance imaging (MRI) plays an important role in diagnosis and demonstrates a typical pattern of bone marrow edema (BME) in the form of diffuse low signal on T1- weighted images and high signal on T2 fat-suppressed or short T1 inversion recovery images. No consensus exists about the management of TOH, as it may progress to avascular necrosis. We describe eight cases of TOH treated with alendronate resulting in improvement of pain and function and complete resolution of BME on MRI. the literature is reviewed regarding TOH and the relationship with bone marrow edema syndrome, avascular necrosis of the hip and regional migratory osteoporosis. to our knowledge, this is the first report describing the improvement of this condition after use of alendronate with documented radiological improvement on follow-up MRI.

Keywords: Alendronate; Bone marrow edema syndrome; Magnetic resonance imaging (Mri); Transient osteoporosis of the hip.

284. Prevalence and Clinical Presentations of Hepatitis C Virus Among Patients Admitted to the Rheumatology Ward

Ayman El Garf, Bassel El Zorkany, Rasha Gheith, Hala Sheba, Geilan Abdel Moneim and Kamal El Garf

Rheumatol Int, 32 (9): 2691-2695 (2012) IF: 1.885

To study the prevalence of anti-HCV antibodies among patients admitted to the rheumatology department, Cairo University hospitals, in 6-month period as well as to determine whether chronic HCV infection was the primary cause of their admission or just a concomitant association with the rheumatic disease. One hundred and fifty-seven patients were included in this study. They represent all patients admitted to the rheumatology inpatient department of Cairo University hospitals during the study period. Preset questionnaire including detailed demographic data, cause of admission and clinical manifestations of their disease was obtained for every patient. All patients were screened for HCV antibodies using ELISA technique. Other laboratory and imaging investigations were done according to the patient's diagnosis. Twentynine patients (18.5%) were positive for HCV antibody. Eleven patients of them (38%) were admitted due to rheumatic manifestations directly related to chronic HCV infection, which represent 7% of all admitted patients (11/157). HCV antibodies were found in 17.6 and 6.7% among patients with rheumatoid and systemic lupus erythematosus. Arthritis, palpaple purpura, digital gangrene and mononeuritis multiplex were the most common causes of admission related to chronic HCV infection. HCV antibodies were found in 18.5% among admitted patients to the rheumatology ward. the rheumatic manifestations of chronic HCV represent the primary cause of admission in 7% of all admitted patients. HCV screening should be included in the routine investigations for patients presenting to rheumatology departments in countries with high prevalence of chronic HCV infection.

Keywords: Hcv; Prevalence; Rheumatology wards; Clinical presentations; Egypt.

285. The TIE2 Receptor Antagonist Angiopoietin-2 in Systemic Lupus Erythematosus: its Correlation with Various Disease Activity Parameters

Maysa K. Salama, Fatma M. Taha, Miriam Safwat, Hanan E.A. Darweesh and Mohamed El Basel

Immunological Investigations, 1-12: (2012) IF: 1.164

Systemic lupus erythematosus is one of the autoimmune diseases characterized by multisystem involvement associated with autoantibody and immune complex vasculitis along with endothelial cell damage.

Objective: to study the possible role of Angiopoietin- 2 (Ang-2) as a recently highlighted inflammatory and angiogenic mediator in the pathogenesis of SLE and its correlation with the state of

another inflammatory marker, P-Selectin, as well as with various markers of the disease activity. Patients and

Methods: the present study included 3 main groups: active SLE patients (group I), inactive SLE patients (group II) and healthy normal control subjects (group III). Groups I and II were subjected to disease activity assessment using the SLEDAI scoring system and measurement of plasma Ang-2 and P-Selectin by ELISA in addition to various laboratory investigations to assess disease activity as: Complete blood count, ESR, serum creatinine, C3, C4 and 24-h urinary proteins.

Results: the mean level of Plasma Ang-2 and P-selectin showed a high significant increase in active group compared to inactive SLE patients and control subjects ($p < 0.001$).There was a significant positive correlation between Ang-2, P-Selectin, and each of SLEDAI score and 24-h urinary proteins in all SLE patients as well as in the active group, and Ang-2 was a significant independent marker for proteinuria. A significant negative correlation was found between Ang-2, P-Selectin and each of C3, C4. Ang-2 and P-Selectin showed a high sensitivity and specificity in the patients with SLE.

Conclusion: Our study suggests that Ang-2 may be a more useful marker than P-Selectin, C3 and C4 in the assessment of disease activity.

Keywords: Angiopoietin (Ang-2); Systemic lupus erythematosus (Sle); Systemic lupus.

286. Insulin Resistance and Metabolic Syndrome in Primary Gout: Relation to Punched-Out Erosions

Tamer A. Gheita, Hussein S. El-Fishawy, Mohamed M. Nasrallah and Hani Hussein

Int J Rheum Dis, 15: 521-525 (2012) IF: 0.807

Objectives: to verify the relation of gout to insulin resistance (IR) and metabolic syndrome (MetS) and find any association of metatarsophalangeal (MTP) joint erosions to the features of MetS and IR.

Methods: Forty-six primary gout male patients with a mean age of 41.96 ± 5.77 years were grouped according to the presence of MetS. Twenty-seven age and sex matched healthy volunteers served as controls. Insulin sensitivity was estimated using the homeostatic model assessment index (HOMA-B) for beta cell function and HOMA-IR for peripheral tissue IR.

Results: Gout patients had significantly higher HOMA-IR and HOMA-B compared to controls. Those with MetS (n = 27) had significantly higher serum uric acid (SUA) than those without (n = 19; 11.51 ± 3.72 mg/dL vs.9.15 ± 2.34 mg/dL; P = 0.012). Gout patients with MTP erosions had notable higher insulin levels and more IR as shown by the higher levels of HOMA-IR and HOMA-B compared to those without. HOMA-IR and HOMA-B significantly correlated with the presence of erosions. Moreover, the presence of erosions significantly correlated with SUA (r = 0.64, P < 0.0001).

Conclusions: the level of SUA is closely related to IR in patients with and without MetS. There is an association of the severity of gout and presence of MTP erosions to IR. Metabolic syndrome forms an important marker for those who develop more punched-out erosions.

Keywords: Erosions; Gout; Homa-B; Homa-Ir; Insulin resistance; Metabolic syndrome.

287. Metabolic Syndrome and Insulin Resistance Comorbidity in Systemic Lupus Erythematosus: Effect on Carotid Intima-Media Thickness

T. A. Gheita, H.A. Raafat, S. Sayed, H. El-Fishawy, M.M. Nasrallah and E.Abdel-Rasheed

Z Rheumatol, 62 (11): 1071-1077 (2012) IF: 0.458

Objective: the aim of the present study was to assess the effect of metabolic syndrome (MetS) and insulin resistance comorbidity on the carotid intima-media thickness (IMT) in SLE patients and their relation to clinical manifestations, disease activity and damage.

Methods: the study included 92 SLE patients (mean age 30.18±8.27 years) and 30 matched control. Disease activity and damage were assessed by the SLEDAI and SLICC Indeces respectively. the Health assessment questionnaire II (HAQII) and Quality of life (QoL) index were assessed in the patients. Levels of insulin, glucose, creatinine and lipid profile were measured in patients and control. Insulin sensitivity was estimated using the homeostatic model assessment index (HOMA-B) for beta cell function and (HOMA-IR) for peripheral tissue insulin resistance. the carotid IMT was measured by ultrasonography.

Results: the SLE patients had high HOMA-IR and HOMA-B. the IMT was significantly increased (0.82±0.29 mm) compared to the control (0.45±0.2 mm).the HOMA-IR, SLEDAI, SLICC, HAQII and IMT were significantly higher and the QoL lower in those with MetS (n =34) compared to those without (n=58) while the HOMAB was comparable. There was a significant correlation between the IMT and the SLEDAI, SLICC and WHR.

Conclusion: Insulin sensitivity and IMT are altered in SLE patients especially those with MetS co-morbidity with an associated increase in disease activity and damage. Effective management of MetS would aid in controlling SLE activity, damage and future development of cardiovascular events especially in the absence of symptoms of cardiovascular disease.

Keywords: Sle; Metabolic syndrome; Homa-ir; Homa-B; Imt.

288. Anti-Annexin V Antibodies In Neuro-Behc¸Et Patients: Clinical Significance And Relation To Disease Activity

Tamer A. Gheita, Hatem Samir and Hani Hussein

International Journal Of Rheumatic Diseases, 15:124 -126 (2012) IF: 0.205

Behc¸et's disease (BD) is a chronic, relapsing vasculitis of unknown etiology and involvement of parenchymalcentral nervous system (CNS) (neuro-BD) is a seriouscomplication and leading cause of mortality. Treatmentof neuro-BD remains largely empirical, and may notadequately control the disease.[1] Annexins are a group of highly conserved proteinswhich exert several regulatory functions on cell biology.

They are involved in numerous cell processes,including vesicle trafficking, calcium signaling, cellgrowth, division and apoptosis. Auto-antibodies directedtoward annexinI, II, V and XI have been reported,but their roles and their clinical correlates are controversial.[2] It has been suggested that lymphocytes inpatients with BD are relatively resistant to apoptosismediated by anti-Fas antibody. These apoptosis-resistant,or long-lived, lymphocytes may be involved inthe

chronic and recurrent intraocular inflammationseen in these patients.3 Annexin V has a high affinityfor phospholipids, playing a pivotal role in the regulationof coagulation cascade and its antibodies werefound in patients with arterial or venous thrombosis,especially those with autoimmune rheumatic diseases.2 The aim of this study was to measure the level of serum anti-annexin V antibodies in BD patients and to study their significance in relation to neurological manifestations.

289. Subclinical Atherosclerosis in Behçet'S Disease

Samia Hassan, Tamer Gheita, Shada Ghoneim and Loi Nasr

Turk J Rheumatol, 27(2): 109-114 (2012) IF: 0.191

Objectives: This study aims to assess the carotid intimamedia thickness (IMT) and plaque formation in patients with Behçet's disease (BD) by Doppler ultrasonography (US) and to correlate it with disease activity, and clinical and laboratory parameters.
Patients and methods: Thirty BD patients (25 males and 5 females; mean age 35.8±8.7 years; 22 to 54 years) diagnosed according to the new set of diagnostic criteria published by the International Study Group for Behçet's Disease, were recruited from the Rheumatology Department, Cairo University Hospitals. the mean disease duration was 8.7±5.9 years. Subjects with diabetes mellitus, hypertension or evidence of myocardial infarction were excluded. Full history taking, clinical examination and skin pathergy test were carried out for all patients. Laboratory measurements including lipid profile were also performed for both patients and controls. Disease activity was assessed using the Behçet's Disease Current Activity Form (BDCAF). Carotid artery ultrasonography was carried out.
Results: the mean IMT was significantly different in the patient group, compared to controls (p=0.003). the mean IMT was significantly correlated with urea, creatinine, cholesterol, triglycerides and the BDCAF, while it was inversely associated with HDL level. Atherosclerotic plaque was found in five patients (16.7%).
Conclusion: A morphologic evidence of subclinical atherosclerosis in patients with BD is verified. Renal function in these patients may indicate possible risks and BDCAF score may significantly suggest cardiovascular involvement.

Keywords: Behçet disease; Behçet'S disease current activity form; Intima-media thickness; Subclinical atherosclerosis.

290. Using Clinical and Multislice Computer Tomographic Features to Assess Temporomandibular Joint Osseous Involvement in Rheumatoid Arthritis: A Preliminary Study

Tamer Gheita, Moushira Dahaba, Eman Ahmed, Shorouk Khalifa and Ayman Basmy

Turk J Rheumatol, 27(1): 47-55 (2012) IF: 0.191

Objectives: I n t his s tudy, w e aimed t o a ssess t he o sseous involvement of temporomandibular joint (TMJ) in rheumatoid arthritis (RA) patients by multislice computed tomography (MSCT) scanning with multiplanar reconstruction (MPR), and to find any relation to the clinical, laboratory and radiological disease parameters.
Patients and methods: Twenty-four female patients (mean age 35.5±6.6 years; range 38.3 to 42 years) with definite diagnosis of RA were recruited in the study. Assessment was conducted through medical history, physical examination and clinical investigation. Disease Activity Scores in 28 Joints (DAS28) was calculated and Health Assessment Questionnaire-II (HAQ-II) used. the TMJs were assessed according to the TMJ clinical dysfunction score. Radiological grading of hands and feet was performed according to the modified Larsen score. Findings of the MSCT were assessed using the TMJ CT score.
Results: Temporomandibular joint involvement was present in 70.83% of patients. the most commonly seen clinical TMJ dysfunction manifestations were difficult manipulation and pain, tenderness (45.83%) clicking (29.17%), locking (16.67%), followed by altered mouth opening (8.33%). the TMJ osseous involvement became more frequent (83.33%) after using bilateral MPR scan. the most frequent findings were mandibular condyle erosions, altered condyle position, mandibular subchondral sclerosis, articular eminence flattening, altered condyle shape and articular fossa erosion, osteophytes, articular eminence erosion, followed by mandibular subcondral cysts. the mouth opening was obviously reduced in 41.67% of patients. the TMJ CT score showed a trend to correlate with DAS28 and modified Larsen score.
Conclusion: the MSCT MPR is a diagnostically reliable modality for the estimation of TMJ involvement in relation to the clinical manifestations and disease activity in RA patients. Early assessment is of utmost importance for the RA patients with symptomatic TMJ.

Keywords: Multiplanar reconstruction; Multislice computed tomography; Rheumatoid arthritis; Temporomandibular joint.

291. Cxcr4 Expression on Peripheral Blood T-Lymphocytes in Patients with Systemic Lupus Erythematosus and its Relation to Disease Activity

Dina S. Al-Zifzaf, Abir M. Nabil, Rasha Mamdouh and Reem A K khattab

Life Science Journal, 9 (4): 3073-3079 (2012) IF: 0.073

In this study, we evaluated the expression of CXCR4 on peripheral blood T cells from SLE patients and studied the association between these levels and various clinical and laboratory parameters in order to find out whether SLE patients demonstrated expression abnormalities of CXCR4 to establish if there is a relation between its expression and disease activity in SLE.
Patients and Methods: This study was conducted on thirty two patients with SLE. All patients were diagnosed according to the 1997 updated American College of Rheumatology (ACR) revised Criteria for diagnosis of SLE. the study also included ten ages and sex matched apparently healthy controls. All patients were subjected to full history taking, thorough clinical examination, assessment of the disease activity according to the modified SLE disease activity index (SLEDAI), SLE cumulative organ damage was scored using the Systemic Lupus International Collaborating Clinics (SLICC) damage index. Routine laboratory investigations were done as well as estimation of CXCR4 expression by flowcytometry on Total Lymphocytes and TLymphocytes.
Results: There was a significant increase in CXCR4 expression on Lymphocytes in general and specifically on T- lymphocytes among SLE patients compared to healthy controls. SLE patients with joint manifestations had significantly lower frequency of expression of CXCR4 on their T cells. on the other hand, patients with serositis had significantly higher levels of expression of

CXCR4 on their lymphocytes. Patients with nephritis did not show a significant difference in their chemokine receptor expression as compared to patients without nephritis. Also, no such difference was found regarding the any other clinical or lab characteristic of the patients. A positive significant correlation between T lymphocytes expressing CXCR4 and disease activity measured by the SLEDAI was found. the test validity characters of CXCR4 expression on T lymphocytes for discrimination of SLE at the best cutoff value of 34.6% showed 100% specificity, 87.5% sensitivity and 90.5% efficacy.

Conclusion: CXCR4 expression levels are elevated on total lymphocytes as well as T cells from SLE patients. This increase in cell expression of CXCR4 correlates positively with disease activity. These findings suggest that CXCR4 hyperexpression may play a vital role in the pathogenesis of SLE, and may after further studies be used as an indicator of disease activity. This also suggests CXCR4 antagonists may halt the role of these cells in the pathogenesis of the disease and improve prognosis for SLE patients.

Keywords: Systemic lupus erythematosus; Lymphocytes; T lymphocytes; Cxcr4.

292. Implication Rénale Subclinique Dans La Vascularite Cryoglobulinémique Essentielle Et La Périartérite Noueuse Classique

Tamer A. Gheitaa, Nermeen A. Khairya, Mohamed Nasr-Allahb and Hani Husseinc

Revue Du Rhumatisme, 79: 215-221 (2012)

Objectif: La vascularite rénale est habituellement associée à des auto-anticorps anti-cytoplasme des neutrophiles (ANCAs). Cependant, les patients ne présentant pas d'ANCAs constituent une catégorie de vascularite rénale rarement étudiée. L'objectif de cette étude était de mettre en évidence des implications rénales caractéristiques chez des patients atteints de vascularites systémiques primaires non associées à des ANCAs (VNAA) et parmi eux, de comparer les vascularites cryoglobulinémiques essentielles (VCE) avec les périartérites noueuses (PAN) classiques.

Méthodes: L'étude incluait trente patients atteints de VNAA. Quinze patients étaient atteints de VCE et les quinze autres étaient atteints dePANclassiques. Les patients ont été recrutés dans les départements de rhumatologie, de médecine interne et du service des consultations externes des hôpitaux universitaires du Caire. Les patients n'avaient pas ou peu d'implications rénales à l'entrée, et les ANCAs étaient negatives lors de test Elisa ou par immunofluorescence. Une biopsie rénale a été réalisée chez tous les patients avec une analyse histopathologique.

Résultats: Des anomalies rénales ont été observées dans les biopsies de six femmes. Une patiente atteinte de PAN montrait une vascularite rénale et une glomérulonéphrite membrano-proliférative (GNMP). Elle avait des anticorps anti-nucléaire (ANA) et était positive pour le virus de l'hépatite B (VHB), mais n'avait pas de cryoglobulines et était négative pour le virus de l'hépatite C (VHC). Les cinq autres patientes, atteintes de VCE associées à une infection par le VHC, avaient également des anomalies rénales. L'une avait une néphrite interstitielle chronique et était positive pour le VHB, les quatre autres patientes étaient négatives pour le VHB. Parmi les quatre patientes, deux d'entre elles étaient atteintes d'une GNMP, les deux autres étant atteintes d'une glomérulonéphrite proliférative focale ou d'une glomérulonéphrite à croissants épithéliaux.

Conclusions: Une meilleure compréhension des manifestations des vascularites systémiques est susceptible de servir de base pour l'usage de thérapies immunomodulatrices plus sélectives dans le futur. Nous espérons que cette étude fera prendre conscience des implications rénales dans les vascularites non associées aux ANCAs

Keywords: Rénale; Non anca; Pan; Cryoglobulinémie; Vascularites.

293. Assessment of Glucocorticoids□ Induced Preclinical Atherosclerosis

AmrAmin and Zeinab Nawito

Glucocorticoids- New Recognition of our Familiar Friend, (2012)

In 1948, the US rheumatologist Philip Hench and his associates at the Mayo Clinic first administered hydrocortisone to a patient with rheumatoid arthritis and discovered its clinical benefits Two years later, Hench, together with biochemists Edward Kendall and Tadeus Reichstein, shared the Nobel Prize in Medicine. Today, glucocorticoids are among the most frequently prescribed class of anti-inflammatory medications They are part of the standard treatment for a wide range of disorders which feature inflammation and/or immune activation, such as asthma, chronic obstructive pulmonary disease, hypersensitivity reactions, autoimmune diseases, and in organ transplantation.

Dept. of Surgery

294. Mass Casualties in Tahrir Square at the Climax of the Egyptian Uprising. Evidence of an Emerging Pattern of Regime's Organized Escalating Violence During 10 Hours on the Night of January 28, 2011

Mohamed D. Sarhan, Ashraf A. Dahaba, Michael Marco and Ayman Salah.

Annals of Surgery, 256 (6): 1093-1097 (2012) IF: 7.492

Documentation of the management of mass casualties in Tahrir Square.

Background: We documented the sequences of our medical response to mass casualties in Tahrir Square between January 28, 2011, and February 4, 2011, at "Kasr El-Ainy" Cairo University Hospital, the largest hospital in the Middle East and the tertiary referral center for all hospitals in Egypt that happened to be the closest to Tahrir Square.

Methods: at the peak of Tahrir Square demonstrations, injured protesters received first aid in amakeshift clinic inside Tahrir Square,manned by volunteer doctors and nurses, before they were evacuated to the Cairo University Hospital Surgical Casualty Department. General surgeons, orthopedic surgeons, anesthesiologists, and critical care nurses frommultidisciplinary teams hastily triaged and treated the incoming casualties. Thousands of casualties were seen at the peak of the uprising. This article provides a detailed review of mass casualties seen between January 28, 2011, and February 4, 2011.

Results: of 3012 casualties, 453 were triaged as "immediate care" patients. on arrival, 339 of 453 patients (74.8%) needed surgical intervention within 6 hours of arrival whereas 74 of 453 patients (16.3%) were managed conservatively. Forty of 453 (8.8%) of patients did not survive their injuries. Most of the inpatients (302/453, 66.6%) were admitted within 10 hours on January 28,

2011, during which evidence of a pattern of regime's organized escalating violence emerged.
Conclusions: We describe the pattern of injuries and our management of Tahrir Square mass casualties. We believe that forming multidisciplinary teams of surgeons, anesthesiologists, and nurses was the key to our effective management of such a huge event.

Keywords: Arab spring; Egyptian uprising; Lessons learned; Mass casualties.

295. Single-Port Transumbilical Laparoscopic Appendectomy: A Preliminarymulticentric Comparative Study in 87 Patients with Acute Appendicitis

Ramon Vilallonga, Umut Barbaros, Ahmed Nada, Aziz Sümer, Tuğrul Demire, José Manuel Fort, Oscar Gonzàlez and Manuel Armengol

Minimally Invasive Surgery, (2012)

Introduction: Laparoscopic appendectomy (LA) has been performed in many approaches such as open, laparoscopic and recently Single Port Access (SPAA). in order to elucidate its potential advantages, we compared the two laparoscopic approaches.
Methods: 87 patients were included in a multicentric study for suspected appendicitis in order to perform (SPAA) appendectomy or laparoscopic appendectomy (LA). All outcomes, including blood loss, operative time, complications, and length of stay and pain were recorded prospectively.
Results: There were 46 patients in the SPAA group and 41 in the LAG with a mean operative time of 40,4 minutes in the SPAA group and 35,0 minutes in the LA group. Only one patient was converted to an open approach. We described only 2 complications. Pain was graded 2,8 in the SPAA group and 2,9 in the LA group, according to the AVS after 24 hours. Patients in the SPAA Group were more satisfied (7,5 versus 6,9) ($P < 0.05$). Same results were found for the cosmetic result (8,6 versus 7,4) ($P < 0.05$).
Conclusion: Using the single port approach feasible and safe. the true benefit of the technique should be assessed by new randomised controlled trials.
Keywords: Single-port; Laparoscope; Appendectomy.

Dept. of Urology Dept

296. Effect of Extracorporeal Shock Wave Lithotripsy on Kidney Growth in Children

A. Fayad, M. G. El-Sheikh, H. El-Fayoumy, R. El-Sergany and A. Abd El Bary

J Urology, 188: 928-931 (2012) IF: 3.746

Purpose: We investigated whether shock wave lithotripsy affects kidney growth in children.
Materials and Methods: This prospective controlled study included 150 children with renal stones who presented for shock wave lithotripsy between March 2005 and February 2010 (group A). the control arm included 100 children without any urological problems who were enrolled in the study after obtaining written maternal consent (group B). All children in both groups underwent abdominal ultrasound to assess renal size (bipolar renal length), which was repeated after 6 months for group A and after 1 year for both groups.
Results: Bipolar renal size in group A increased significantly at 6 months and 1 year after shock wave lithotripsy. Renal growth did not differ based on patient age at shock wave lithotripsy (p 0.472), number of shock wave lithotripsy sessions (p 0.65) or number of stones (p 0.405). There was no significant difference between the rate of kidney growth in children who underwent shock wave lithotripsy during the year of the study and normal controls.
Conclusions: Shock wave lithotripsy has no deleterious effect on the normal rate of renal growth in children. This outcome is not affected by either the number of stones or the age of the child at shock wave lithotripsy.

Keywords: Cicatrix; Kidney calculi; Lithotripsy; Radionuclide imaging; Ultrasonography.

297. Long-Term Follow-Up (18–35 Years) of Male Patients with History of Bladder Exstrophy (Be) Repair in Childhood: Erectile Function and Fertility Potential Outcome

Hosni Khairy Salem and Mohammed Eisa,

J Sex Med, 9: 1466-1472 (2012) IF: 3.552

Introduction: Bladder exstrophy is a rare condition that may lead to severe psychosexual malformation and require a lifelong follow-up.
Aim: We describe the long-term sexual outcome of patients with bladder exstrophy treated at our institution at early stage.
Methods: Thirty patients with mean age of 26 years (range 18–35 years) were included in the study. Fifteen patients underwent staged primary reconstruction, five patients underwent complete primary repair, and 10 patients underwent primary or secondary ureterosigmoidostomy. Main Outcome Measures. Evaluation consisted of pediatric medical records, interview questionnaire including the psychosexual history, International Index of Erectile Function (IIEF), and semen analysis.
Results: Erectile functions were maintained in 28 patients based on IIEF domain score. in all cases, penile length was objectively less than average (mean 7.65 cm). Seven patients were not satisfied with their penile length, and four cases complained of slight curvature. Ten patients were married (33%), of whom four patients had children (after normal conception in three, and after assisted reproductive technique in one). the remaining 20 patients were not married because of the feeling of sexual inadequacy to be able to engage in sexual intercourse (six patients), afraid of the cosmetic appearance of the genitalia (10 patients), and incontinence (four patients). Retrograde ejaculation was documented in 16 cases (53.5%), low volume ejaculate in eight cases (26.5%), and anejaculation in six cases (20%).
Cosmetic outcome was considered satisfactory by 50% of the patients. Sixteen patients voided per urethra, four performed clean intermittent catheterization, and 10 patients had ureterosigmoidostomy diversion. Urinary tract infection was documented in 20% of the cases, and recurrent attacks of pyelonephritis in 10% of the cases.
Conclusion: Long-term outcome of bladder exstrophy repair in male patients showed fair results with respect to sexual function with more or less stable sexual relationship.We should do our best to solve the problem of those with restricted sexual lives. Salem HK and Eisa M. Long-term follow-up (18–35 years) of male

patients with history of bladder exstrophy (BE) repair in childhood: Erectile function and fertility potential outcome

Keywords: Bladder exstrophy; Male; Erectile function; Penile length.

298. Changing Patterns (Age, Incidence,and Pathologic Types) Ofschistosoma-Associated Bladder Cancer in Egypt in the Past Decad

Hosni Khairy Salem and Soheir Mahfouz

Urology, 79 (2): 0-0 (2012) IF: 2.428

Objective to assess the patterns of schistosomiasis-associated bladder cancer in Egypt from 2001 to 2010 in a retrospective study. Bilharzial bladder carcinoma is the most common cancer, particularly in Egyptian men. Classically, carcinoma in a bilharzial bladder is most commonly of the squamous cell type. During the past decade, certain changes have occurred in the features in Schistosomiasis- associated carcinoma in Egypt with a decline in the frequency of squamous cell carcinoma and increase in the frequency of transitional cell carcinoma.
Methods This was a retrospective study of 1932 patients treated at Kasr Al Aini Hospital, Cairo University, from 2001 to 2010. Two groups were selected: group 1 included 1002 patients from 2001 to 2005 and group 2 included 930 patients from 2006 to 2010.
Results the mean patient age increased from 41 11.2 years to 52 8.6 years, and the male/female ratio changed from 5.6:1 to 4.2:1. the incidence of associated bilharziasis decreased from 80% to 50%. A significant increased occurred in transitional cell carcinoma from 20% to 66%, with a significant decrease in squamous cell carcinoma from 73% to 25%. No difference was observed in the tumor stage or grade or incidence of lymph node metastases between the 2 groups.
Conclusion the pattern of incidence of the various histologic types of bladder cancer have changed, with most cases now transitional cell carcinoma, in contrast to the findings in the earlier Egyptian series. Additional studies are encouraged to explain the factors explaining these changes.
Keywords: Changing patterns; Schistosoma; Bladder cancer; Egypt.

299. Rehabilitation of the Cavernous Smooth Muscle in Patients with Organic Erectile Dysfunction

H. Salem and T. Mostafa

Andrologia, 44: 125-129 (2012) IF: 1.546

This study aimed at assessing the effect of regular use of intracorporeal injection(ICI), sildenafil citrate and vacuum constriction device (VCD) on cavernous smooth muscle and erectile activity. One hundred and sixty-five patients with organic erectile dysfunction were investigated for 3 months. the patient and his partner were classified prospectively after proper counselling: group I (n = 56) received ICI twice per week; group II (n = 55) received sildenafil 100 mg twice per week; and group III (n = 54) used VCD twice per week. Duplex ultrasound was carried out before and after treatment, and then, the patients were followed up for a month to assess the resumption of unaided erection. the results showed that there was significant improvement in mean peak systolic velocity (PSV) and mean cavernosal artery diameter (CAD) at the end of the treatment in all groups, being higher in the ICI group than in the other two groups. Also, the percentage of patients who resumed unaided intercourse were higher in the ICI group compared with the other two groups (17.9%, 9.1% and 3.7% respectively). It is concluded that repeated regular use of ICI, sildenafil or VCD by patients with organic erectile dysfunction has a positive impact on their cavernous blood flow and erectile activity.

Keywords: Cavernous tissue; Erectile dysfunction; Erection; Ici—sildenafil citrate; Vacuum device.

300. Primary and Secondary Malignant Involvement of Gynaecological Organs at Radical Cystectomy for Bladder Cancer: Review of Literature and Retrospective Analysis of 360 Cases

H. Salem and A. El-Mazny

Journal of Obstetrics and Gynaecology, 590-593: (2012)
IF: 0.542

The pathological analysis of cystectomy specimens from 360 female patients who underwent radical cystectomy for bladder cancer was retrospectively reported. the uterus was not available in 29 specimens, while one ovary was absent in 18 specimens and the two ovaries we re absent in 20 specimens. Uterine involvement was observed in one case of transitional cell carcinoma, and benign uterine pathology was detected in 37 cases. All patients had normal ovaries, while the vagina was involved in 13 cases. A total of 12% of the patients had urethral involvement. None of the 29 patients, in whom the internal genitalia were totally or partially preserved, had late ovarian, vaginal or uterine recurrence at the last follow-up.
Thus, the preservation of female internal genitalia in young patients undergoing radical cystectomy should be considered under strict criteria (low-grade, low-stage tumours away from the bladder neck). This will improve the quality-of-life (QoL) and the functional outcome without compromising cancer control.

Keywords: Bladder cancer; Gynaecological organs; Pelvic exenteration; R Adical cystectomy.

301. Islam and Circumcision

Mohamed S. El-Sheemy

Surgical Guide To Circumcision, (2012)

Circumcision is a universal practice that is greatly influenced by cultural and religious traditions. It is the most frequent operation on males not only in Islamic countries, but also other parts of the world [1, 2]. for example, in the USA more than one million male infants are circumcised each year [3]. It is estimated that one-third of the global male population is circumcised.

302. Merits and Arguments Related To Circumcision

Hosni Khairy Salem

Complementary Pediatrics, (2012)

Christians and no believers perform Circumcision for health and hygienic reasons especially in U.S.A. and some countries of the Middle East. It is uncommon in Northern Europe, Central and South America and Asia (Leitch, 1970). It is one of the" oldest operations but it has not received enough consideration or progress in the Middle East. It is always regarded as a minor

outpatient procedure often performed by primitive clamps by barbers, Mohels, medical students and house officers (Kaplan, 1977).in hospitals, male circumcision is perform a review of the literature regarding the different aspects of male circumcision and discussing the following points; history of circumcision, urgent indications of circumcision.

Faculty of Nursing

Dept. of Community Health Nursing

303. Improvements in the Status of Women and Increased Use of Maternal Health Services in Rural Egypt

Chifa Chiang, Inass Helmy Hassan Elshair, Leo Kawaguchi,Nawal Abdel Moneim Fouad, Nagah Mahmoud Abdou,Michiyo Higuchi, Saneya Rizk El Banna and Atsuko Aoyama

Nagoya Journal of Medical Science, 74: 233-240 (2012)

This research investigated the association between the household status of women and their use of maternal health services in rural Egypt. Face-to-face interviews with a structured questionnaire to 201 married women were carried out in a village, posing questions about their health service utilization and their household socio-economic status. the association between service utilization and other variables was statistically analysed. Older ages at first marriage and higher education levels showed significant positive associations with the three outcome variables—regular antenatal care (ANC), deliveries attended by skilled health professionals, and deliveries at heath facilities—of the use of maternal health services. Women who had not experienced physical assaults by husbands and had knowledge of community activities were more likely to receive ANC regularly; however, there were no significant association with the other two outcome variables. Participation in household decision-making and availability of assistance with household chores had no significant linkage to the use of maternal health services. Marriages to husbands with secondary or higher levels of education and residence in extended families were significantly associated with greater maternal health service usage. Our results suggest that the improved status of women in the household and moral support from family members contributes to an increase in the use of maternal health services.

Keywords: Maternal health services; Women'S status; Family support; Egypt.

Dept. of Maternal and Newborn Health Nursing

304. Prenatal Attachment and Fetal Health Locus of Control Among Low Risk and High Risk Pregnant Women

Abeer Eswi and Amal Khalil

World Applied Sciences Journal, 18 (4): 462-471 (2012)

The present study was carried out to assess prenatal attachment and fetal health locus of control among low risk and high risk Egyptian pregnant women. A descriptive correlational design was utilized for the study. A total of 100 pregnant women, both low (N=55) and high (N= 45) risk pregnant women were recruited for the study. Prenatal attachment inventory and fetal health locus of control scale (FHLC) were used for data collection Results indicated that participants experienced more positive feelings of attachment towards their fetuses, the mean prenatal attachment was 50.7 (SD± 9.9). Participants also reported high levels of fetal health locus of control, with the mean of 119.3 (SD ±15.0). Prenatal attachment was positively associated with fetal health locus of control, age and number of living children. Fetal health locus of control was positively associated with number of deliveries, number of abortions and marital status. Both prenatal attachment and fetal health locus of control differed by high/low risk pregnancy. in Conclusion, Egyptian pregnant women experienced more positive feeling of attachment toward their fetuses. Prenatal attachment differed by high/low risk pregnancy.

Keywords: Prenatal attachment; Locus of control; High risk and Low risk pregnancy.

Dept. of Medical-Surgical Nursing

305. Psychological Stress Among Gaza War Amputees: Impact of A Designed Training Counseling Program

Atef Ismail (Author), Warda Morsy (Author), Nefissa Abd El kader

Book Published by Lap Lambert Academic Publishing, (2012)

Wounded amputees are faced with myriad issues involving mutilation, pain, multiple surgeries, body image issues, depression, anxiety, and post traumatic stress disorder symptoms. All are common and must be addressed rapidly with ongoing counseling and pharmacologic management and along period of rehabilitation.the aim of this study was to investigate the effect of a designed training-counseling program on psychological stress among Gaza War amputees in Gaza Governorates. Quasi-experimental design (pre-test/post-test) was used in this study.the study was conducted on the 24 subjects who have the highest stress level scores. the training counseling program was designed on Albert Ellis theory for rational emotive behavior therapy. Results revealed that the designed training counseling program was having an effective impact on reducing psychological stress level among Gaza war amputees. the study concluded that Gaza war amputees were exposed to a higher stress level that could negatively affect all their life aspects.However,the training counseling program showed a positive impact on reducing their psychological stress level and promoting their abilities to function productively.

Faculty of Oral Dental Medicine

Dept. of Endodontics

306. The Effect of Prior Calcium Hydroxide Intracanal Placement on the Bond Strength of Two Calcium Silicate-Based and Epoxy Resin-Based Endodontic Sealers

Suzan Abdul Wanees Amin, Reham Saeed Seyam and Mohammed Abbas El-Samman

J. Endodont, 696-699: (2012) IF: 2.88

Introduction: the aim of this study was to investigate the effect of prior calcium hydroxide (Ca[OH]2) intracanal placement on

Faculty of Medicine

Dept. of Andrology & Sexolog

85. Non-obstructive Azoosperimia: Evaluation and Management

Ibrahim Fahmy

Clinical Infertility and in Vitro Fertilization, Jaypee Brothers Medical Publishers, (2012)

NOA result from a wide variety of congenital and acquired causes. Genetic basis play a crucial A complete andrological work-up including hormonal profile is essential to estabkish the diagnosis of NOA and exclude frequently associated disorders. Sperm extraction from the testis with ICSI is an established standard treatment. Testicular histopathology remains the best predictive indicator for sperm retrieval. Future studies in NOA should report histopathology using a comparable classification system. Current guidelines on surgical sperm retrieval techniques for NOA are only based on observational studies; hence no definitive conclusions can de drawn However, best available evidence suggests that open biopsy is better than needle aspiration Multiple biopsies yield better results than a single random biopsy. Micro-dissection TESE may improve the yield and sacrifice less testicular tissue especially in patients with SCOS. There is no difference in the outcome with the use of fresh or frozen testicular sperm. However in some cases, the cryopreservation process may not allow adequate recovery of viable sperm. Finally, further research should focus on new techniques that can help improving the sperm retrieval rates.

Dept. of Clinical & Chemical Pathology

86. FcγRIIa and FcγRIIIa Genetic Polymorphisms in a Group of Pediatric Immune Thrombocytopenic Purpura in Egypt

Eyada, Tayseer K.; Farawela, Hala M.; Khorshied, Mervat M.; Shaheen, Iman A.; Selim, Neama M.; Khalifa and Iman A.S.

Blood Coagulation and Fibrinolysis, (1): 64 -68 (2012). IF: 1.238

Immune thrombocytopenic purpura (ITP) is an acquired autoimmune disorder caused by the production of antiplatelet antibodies. The current case-control study aimed at detecting the frequency of FcγRIIa-131H/R and FcγRIIIa-158F/V genes polymorphism in Egyptian children with ITP as genetic markers for ITP risk, and to clear out their possible role in choosing the treatment protocols of ITP. To achieve this aim, FcγRIIa genotyping was tested by PCR-restriction fragment length polymorphism (RFLP) technique, whereas FcγRIIIa genotyping was tested by nested PCR followed RFLP analysis. The current case-control study was conducted on 92 children with ITP; 12 acute and 80 chronic cases and 90 controls. The V allele and FcγRIIIa FV heterotype were significantly higher in ITP patients and conferred increased ITP risk [odds ratio (OR)=1.96 and 2.55, respectively]. The frequency of FcγRIIa H allele was significantly higher among chronic ITP patients. In conclusion, FcγRIIIa gene polymorphism may contribute to susceptibility to ITP. Moreover, analysis of the FcγR polymorphisms in ITP patients could influence the effectiveness of medications and selection of the line of treatment.

Keywords: Childhood itp; Fcgr iia; Fcgr iiia; Pcr-restriction fragment length polymorphism.

Dept. of Dermatology

87. Hair Loss in Pityriasis Versicolor Lesions: A Descriptive Clinicopathological Study

Wedad Z. Mostafa, Magda I. Assaf, Iman A. Ameen, Omar S. El Safoury and Shatha A. Al Sulh

Journal of the American Academy of Dermatology, 69 (1): e19-e23 (2012). IF: 3.99

Background We have observed that hair thinning and/or loss occur at times as a presenting symptom or sign in patients with pityriasis versicolor (PV). Objective Our objective was to verify and explore this clinical observation and depict its underlying pathology. Methods A total of 39 patients with PV were examined during a period of 11 months and skin biopsy specimens were taken from lesional and nonlesional skin. Hematoxylin-eosin– and periodic acid–Schiff–stained sections were examined and described. Results were statistically analyzed. Results Hair loss and/or thinning within PV lesions was shown in 61.5% of patients (P value < .0005), appearing most commonly on forearms, abdomen, and neck as well as the beard area (only in male participants). Histopathologically, in addition to the classically described features of PV, basal hydropic degeneration, follicular degeneration, miniaturization, atrophy, plugging, and/or hair shaft absence occurred in 46% of lesional versus 20.5% of nonlesional biopsy specimens (P value < .05); these changes appeared to be directly or indirectly related to the presence of Malassezia organisms in hair follicles and/or stratum corneum. Limitations Some patients with PV lesions on the face did not approve facial biopsy. Conclusion This study provides clinical and histopathological evidence that PV lesions may be associated with hair thinning and/or loss.

Keywords: Hair loss; Hair shaft; Histopathology; Hydropic degeneration; Hyphae; Malassezia; Pityriasis versicolor.

Dept. of Diagnostic Radiology

88. Repeated Transarterial Chemoembolisation using Different Chemotherapeutic Drug Combinations Followed by Mr-Guided Laser-Induced Thermotherapy in Patients with Liver Metastases of Colorectal Carcinoma

TJ Vogl, A Jost, NA Nour-Eldin, MG Mack, S Zangos and NNN Naguib

*British Journal of Cancer,*106 (7): 1274-1279 (2012). IF: 5.042

Background: To evaluate a treatment protocol with repeated transarterial-chemoembolisation (TACE) downsizing before MR-guided laser-induced interstitial thermotherapy (LITT) using different chemotherapeutic combinations in patients with unresectable colorectal cancer (CRC) liver metastases.

Methods: Two hundred and twenty-four patients were included in the current study. Transarterial-chemoembolisation (mean 3.4 sessions per patient) was performed as a downsizing treatment to meet the LITT requirements (number≤5, diameter <5 cm). The intra-arterial protocol consisted of either Irinotecan and Mitomycin (n=77), Gemcitabine and Mitomycin (n=49) or Mitomycin alone (n=98) in addition to Lipiodol and Embocept in all patients. Post TACE, all patients underwent LITT (mean 2.2 sessions per patient).

Results: Overall, TACE resulted in a mean reduction in diameter of the target lesions of 21.4%. The median time to progression

was 8 months, calculated from the start of therapy and the median local tumour control rate was 7.5 months, calculated as of therapy completion. Median survival of patients calculated from the beginning of TACE was 23 months (range 4-110 months), in patients treated with Irinotecan and Mitomycin the median was 22.5 months, Gemcitabine and Mitomycin 23 months and Mitomycin only 24 months with a statistically significant difference between the groups (P<0.01).
Conclusion: Repeated TACE offers adequate downsizing of CRC liver metastases to allow further treatment with LITT. The combined treatment illustrates substantial survival rates and high local tumour control with statistically significant differences between the three protocols used. Further randomised trials addressing the current study results are required.
Keywords: Transarterial chemoembolisation; MR-guided laser-induced thermotherapy; Liver metastases; Colorectal carcinoma.

89. Initial Experience with Repetitive Transarterial Chemoembolization (TACE) as a Third Line Treatment of Ovarian Cancer Metastasis to the Liver: Indications, Outcomes and Role in Patient's Management

Thomas J. Vogl, Nagy N.N. Naguib, Thomas Lehnert, Nour-Eldin A. Nour-Eldin, Katrin Eichler, Stephan Zangos and Tatjana Gruber-Rouh

Gynecologic Oncology, 124 (2): 225-229 (2012). IF: 3.888

Objective: To evaluate local tumor control and survival data after transarterial chemoembolization (TACE) with different drug combinations in the palliative third-line treatment of patients with ovarian cancer liver metastases.
Methods: Sixty-five patients (mean age: 51.5 year) with unresectable hematogenous hepatic metastases of ovarian cancer who did not respond to systemic chemotherapy were repeatedly treated with TACE in 4-week intervals. The local chemotherapy protocol consisted of Mitomycin (group 1) (n=14; 21.5%), Mitomycin with Gemcitabine (group 2) (n=26; 40%), or Mitomycin with Gemcitabine and Cisplatin (group 3) (n=25; 38.5%). Embolization was performed with Lipiodol and starch microspheres. Local tumor response was evaluated by MRI according to RECIST criteria. Survival data were calculated according to the Kaplan-Meier method.
Results: The local tumor control was: partial response (PR) in 16.9% (n=11), stable disease (SD) in 58.5% (n=38) and progressive disease (PD) in 24.6% (n=16) of patients. In group 1, we observed SD in 78.6% (11/14), and PD in 21.4% (3/14) of patients. In group 2, PR in 7.7% (2/26), SD in 57.7% (15/26), and PD in 34.6% (9/26) of patients.In group 3, PR in 36% (9/25), SD in 48% (12/25), and PD in 16% (4/25) of patients. Survival rate from the start of TACE was 58% after 1-year, 19% after 2-years, and 13% after 3-years. The median and mean survival times were 14 and 18.5 months without statistically significant difference for the 3 groups of patients (p=0.502).
Conclusion: Transarterial chemoembolization is effective palliative treatment in achieving local control in selected patients with liver metastases from ovarian cancer.
Keywords: Transarterial chemoembolization; Ovarian cancer; Liver metastases.

90. Role of Uterine Artery Doppler in the Management of Uterine Leiomyoma by Arterial Embolization

N. N. N. Naguib, N.-E. A. Nour-Eldin, F. Serag-Eldin, Y. Z. Mazloum, A. F. Agameya, S. Abou-Seif, A. N. Etaby, T. Lehnert, T. Gruber-Rouh, S. Zangos, H. Ackermann and T. J. Vogl

Ultrasound in Obstetricsand Gynecology, 40 (4): 452-458 (2012). IF: 3.007

Objectives: To study Doppler changes in the uterine artery immediately following and 3 months after uterine artery embolization (UAE) and to test the feasibility of using uterine artery Doppler as a predictor of the predominant side of arterial supply to leiomyomas, amount of embolizing material needed and leiomyoma tumor volume at follow-up.
Methods: The study included 38 patients undergoing UAE for leiomyomas. Uterine artery Doppler was performed transabdominally before, within 6 hours after and 3 months after UAE to determine the peak systolic (PSV) and end-diastolic (EDV) velocities and resistance index (RI). Leiomyoma volume was measured using contrast-enhanced magnetic resonance imaging (MRI) before and 3 months after UAE. The predominant side of arterial supply to the leiomyoma was determined on digital subtraction angiography using the uterine artery diameter and tumor blush after contrast injection. For correlations with leiomyoma volume, the average PSV, EDV and RI of both sides was used, while for prediction of the predominant side of supply and for correlation with the amount of embolizing material needed, separate measurements from each side were used.
Results: Relative to the pre-embolization value, the uterine artery PSV and EDV were significantly reduced ($P < 0.05$) immediately following UAE, while the RI was significantly elevated ($P < 0.05$). For prediction of the predominant side of supply, the lowest RI showed the highest accuracy (81.6%). There was no significant correlation between the pre-embolization PSV, EDV or RI and the amount of embolizing material utilized. Immediately post-embolization EDV and RI values were statistically significantly correlated with the 3-month follow-up leiomyoma volume, with RI showing the strongest correlation ($P = 0.0400$ and 0.0002, rho = 0.34 and - 0.58, respectively). The leiomyoma volume was predicted to have reduced by 38-61% after 3 months if the immediate post-embolization average RI value was between 0.82 and 0.88. **Conclusion:** Pre-interventional Doppler assessment can be used to predict the predominant side of supply to leiomyomas but not the amount of embolizing material needed. Immediate post-interventional Doppler assessment can predict the leiomyoma volume after UAE.
Keywords: Uterine artery doppler; Uterine leiomyoma; Arterial embolization.

91. Mr-Based Thermometry of Laser Induced Thermotherapy: Temperature Accuracy and Temporal Resolution in Vitro at 0.2 and 1.5 T Magnetic Field Strengths

Thomas J. Vogl, Frank Huebner, Nagy N.N. Naguib, Ralf W. Bauer, Martin G. Mack, Nour-Eldin A. Nour-Eldin and Dirk Meister

Lasers in Surgery and Medicine, 44(3): 257-265 (2012). IF: 2.748

Purpose: To evaluate MR-thermometry using fast MR sequences for laser induced interstitial thermotherapy (LITT) at 0.2 and 1.5 T systems.

Methods & Materials: In-vitro experiments were performed using Agarose gel mixture and lobes of porcine liver. MR-thermometry was performed by means of longitudinal relaxation time (T1) and proton resonance frequency shift (PRF) methods under acquisition of amplitude and phase shift images. Four different sequences were used for T1 thermometry: A gradient-echo (GRE), a True Fast Imaging with Steady Precession (TRUFI), a Saturation Recovery Turbo-FLASH (SRTF), and an Inversion Recovery Turbo-FLASH (IRTF) sequence (FLASH-Fast Low Angle Shot). PRF was measured with four sequences: Two fast-spoiled GRE sequences (one as WIP sequence), a Turbo-FLASH (TFL) sequence (WIP sequence), and a multiecho-TrueFISP sequence. Temperature was controlled and verified using a fiber-optic Luxtron device. The temperature was correlated with the MR measurement.
Results: All sequences showed a good linear correlation $R(2) = 0.97\text{-}0.99$ between the measured temperature and the MR-thermometry measurements. The only exception was the TRUFI sequence in the Agarose phantom that showed a non-linear calibration curve $R(2) = 0.39\text{-}0.67$. At 1.5 T, the Agarose experiments revealed similar temperature accuracies of 4-6°C for all sequences excluding TRUFI. During experiments with the liver, the PRF sequences showed better performance than the T1, with accuracies of 5-12°C, contrary to the T1 sequences at 14-18°C. The accuracy of the Siemens PRF-FLASH sequence was 5.1°C. At 0.2 T, the Agarose experiments provided the highest accuracy of 3.3°C for PRF measurement. At the liver experiments the T1 sequences SRTF and FLASH revealed the best accuracies at 6.4 and 7.0°C.
Conclusion: The accuracy and speed of MR temperature measurements are sufficient for controlling the temperature-based tumor destruction. For 0.2 T systems SRTF and FLASH sequences are recommended. For 1.5 T systems SRTF and FLASH are the most accurate.
Keywords: MR-based thermometry; Laser induced thermotherapy.

92. Analysis of Disk Volume before and after Ct-Guided Intradiscal and Periganglionic Ozone-Oxygen Injection for the Treatment of Lumbar Disk Herniation

Thomas Lehnert, Nagy N. N. Naguib, Sebastian Wutzler, Nour-Eldin A. Nour-Eldin, Ralf W. Bauer, Josef Matthias Kerl, Thomas J. Vogl and Joern O. Balzer

Journal of Vascular and Interventional Rdiology, 23 (11): 1430-1436 (2012). IF: 2.075

Purpose: To quantify the change in volume in herniated lumbar disk after computed tomography (CT)-guided intradiscal and periganglionic ozone-oxygen injection and to assess the effects of patient age, sex, and initial disk volume on disk volume changes.
Materials and Methods: A total of 283 patients with lumbar radiculopathy received a single intradiscal (3 mL) and periganglionic (7 mL) injection of an ozone-oxygen mixture (ratio, 3:97; ozone concentration, 30 µg/mL). Under CT guidance, intradiscal and periganglionic injection was performed through an extraspinal lateral approach with a 22-gauge spinal needle. All disk volume changes were evaluated on CT 6 months after the procedure in all patients.
Results: Initial mean disk volume was 17.37 cm (3) ± 4.70 (standard deviation; range, 8.12-29.15 cm(3)). Disk volume reduction (mean, 7.70% ± 5.45; range, 0.29%-22.31%) was seen in 96.1% of treated disks (n = 272) at 6 months after treatment and was found to be statistically significant ($P < .0001$). In 3.9% of patients (n = 11), disk volume increased (mean, 0.59% ± 0.24; range, 0.11%-0.81%). Patient age correlated negatively with disk volume reduction ($r = -0.505$; $P < .0001$) at 6 months after treatment, whereas initial disk volume correlated positively with volume reduction ($r = 0.225$; $P = .00014$) after therapy. No correlation was noted between patient sex and disk volume reduction after treatment ($P = .09$).
Conclusions: Intradiscal administration of medical ozone is associated with a statistically significant volume reduction of the herniated lumbar disk. The volume-reduction effect of ozone correlates negatively with the patient's age and positively with initial disk volume.
Keywords: CT-guided; Intradiscal; Periganglionic; Ozone–oxygen injection; Lumbar disk herniation.

93. Pediatric Primary and Metastatic Neuroblastoma: MRI Findings: Pictorial Review

Nour-Eldin A. Nour-Eldin, Ola Abdelmonem, Ahmed M. Tawfik, Nagy N.N. Naguib, Thomas Klingebiel, Udo Rolle, Dirk Schwabe, Marc Harth, Mohammed M. Eltoukhy and Thomas J. Vogl

Magnetic Resonance Imaging, 30 (7): 893-906 (2012). IF: 1.991

Magnetic resonance imaging (MRI) has become one of the most valuable modalities for initial and follow-up imaging of suspected or known neuroblastoma (NBL) owing to its excellent inherent contrast, lack of ionizing radiation and multiplanar imaging capability. Importantly, NBL has a variable appearance on different imaging modalities, and this is particularly pertinent to MRI. MRI is a cornerstone for management of NBL, providing essential information at initial presentation regarding diagnosis, staging, resectability and relation to vital structures.
It can also define the extent of residual disease after surgical resection or assess the efficacy of treatment. Follow-up MRI is frequently performed to ensure sustained complete remission or to monitor known residual disease. This pictorial review article aims to provide the reader with a concise, yet comprehensive, collection of MR images of primary and metastatic NBL lesions with relevant correlation with other imaging modalities.
Keywords: Pediatric primary; Metastatic; Neuroblastoma; MRI.

94. Retrospective Study on the use of Different Protocols for Repeated Transarterial Chemoembolization in the Treatment of Patients with Hepatocellular Carcinoma

Thomas J. Vogl, Nagy N. N. Naguib, Nour-Eldin A. Nour-Eldin, Parviz Farshid, Thomas Lehnert, Tatjana Gruber-Rouh and Katharina Sophia Engels

Academic Radiology, 19(4): 434-439 (2012). IF: 1.692

Purpose: To evaluate local tumor control and survival rate after repeated transarterial chemoembolization using two different protocols in hepatocellular carcinoma (HCC) patients.
Materials and Methods: A total of 190 patients (mean, 68 years) with HCC were repeatedly treated with transarterial chemoembolization in 4-week intervals. The chemotherapy protocol consisted of mitomycin C alone (n = 111) and mitomycin C with gemcitabine (n = 79). Embolization was performed with

lipiodol and microspheres. Tumor response was evaluated by magnetic resonance imaging using Response Evaluation Criteria In Solid Tumors (RECIST) criteria. Survival rates were calculated using Kaplan-Meier method.
Results: In the mitomycin C-only group, we observed partial response in 38.8% (43/111), stable disease in 27% (30/111), and progressive disease in 34.2% (38/111). In the mitomycin C/gemcitabine group (n = 79), partial response was observed in 43% (34/79), stable disease in 16.5% (13/79) and progressive disease in 40.5% (32/79). The overall 1- and 2-year survival rates were 56% and 28%, respectively. The overall median survival time from the start of transarterial chemoembolization treatment was 15 months. The median survival of patients treated with mitomycin C was 16.5 months and it was 12 months for patients treated with a combination of mitomycin C and gemcitabine. No statistically significant difference between the two groups was observed (P = .7). **Conclusion:** Chemoembolization is an effective minimally invasive therapy option for palliative treatment of HCC patients. Mitomycin C only proves to be effective, the addition of gemcitabine was not advantageous.
Keywords: Transarterial chemoembolization; Hepatocellular carcinoma.

Dept. of Ear Nose & Throat

95. Palatal Eversion: A New Technique in Treatment of Nasopharyngeal Stenosis

G. Abdel-Fattah

International Journal of Pediatric Otorhinolaryngology, 76: 879-882 (2012). IF: 1.167

Objective The treatment of nasopharyngeal stenosis is challenging because of a high incidence of recurrence after surgical correction. Therefore, many treatment modalities are being tried to cure this problem. The aim of this study is to assess the efficacy of palatal eversion as a new technique for treatment of nasopharyngeal stenosis after adenotonsillectomy. Study Design Case series. **Methods** This study was conducted on 12 patients with nasopharyngeal stenosis after adenotonsillectomy were subjected to treatment by palatal eversion by dividing the soft palate in the midline and removal of the fibrous tissue causing stenosis followed by evertion and fixation of the two palatal division on either side for six weeks to allow complete epithelialization of the stenotic area followed by another operation to reunion the soft palate in the midline. Post-operative follow up was done for one year by flexible nasopharyngoscopy, perceptual speech analysis and polysomnography. **Results** Flexible nasopharyngosopic examination of the 12 patients at the end of post-operative period revealed a freely mobile soft palate with no nasopharyngeal stenosis or palatal fistula. Velopharyngeal function and speech assessment by perceptual speech analysis was normal in all 12 cases. No obstructive episodes were recorded in polysomnograms. **Conclusions** Palatal eversion is a promising technique in treatment of post-adenotonsillectomy nasopharyngeal stenosis and it is recommended to be used in a wider scale of patients and other indications as nasopharyngeal stenosis following uvulopalatoplasty and post nasopharyngeal radiotherapy.
Keywords: Nasopharyngeal stenosis; Palatal eversion; Adenotonsillectomy complications.

Dept. of Endemic

96. A Review of Chronic Hepatitis B Epidemiology and Management Issues in Selected Countries in the Middle East

Abdo A.A. Abdou A.M., Akarca U.S., Aljumah A.A., Amir G., Bzeizi K., Dixon J., Al Dweik N.Z., El-Sayed M.H., Esmat G., Jazzar A., Mostafa I. and Nawaz A.A.

J. Viral Hepatitis, 19 (1): 9-22 (2012). IF: 4.088

Experts from seven countries convened as a Specialist Panel for the Middle East to share information on practical issues relating to the epidemiology, diagnosis and management of chronic hepatitis B (CHB) infection. The Middle East is regarded as a region of high-to-intermediate epidemicity; however, infant vaccination programmes have successfully lowered the prevalence of hepatitis B infection in most countries to that of low-to-intermediate endemicity. Vaccine issues still to be addressed included improving coverage in some rural/poor communities, instituting hepatitis B vaccine at birth and providing vaccines for high-risk population groups. Hepatitis B infection in the Middle East primarily occurs as a result of perinatal infection, horizontal transmission between family members and transmission from injections. Blood transfusion services have broadly efficient screening programmes, but immunocompromised and haemodialysis patients are at risk. The cost of screening, monitoring and treating CHB influences practice in a number of Middle East countries, and there is a need for information on the most cost-effective options.
Keywords: Epidemiology; Hepatitis B virus; Middle East; Treatment; Vaccination.

97. Role of Helicobacter Pylori in Patients with HCV-Related Chronic Hepatitis and Cirrhosis with or Without Hepatocellular Carcinoma: Possible Association with Disease Progression

G. Esmat, M. El-Bendary, S. Zakarya, M.A. Ela and K. Zalata

J. Viral Hepatitis,19 (7): 473-479 (2012). IF: 4.088

The discovery of Helicobacter hepaticus as a causal agent of hepatitis and hepatocellular carcinoma (HCC) in mice has Stimulated interest in looking for Helicobacter species in human liver samples. In this study, we searched for association between H. pylori and HCV-related liver disease. Liver specimens were collected from eighty-five patients; they were divided into five different groups according to liver pathology (METAVIR system). Group I (the 1st control group) consisted of 16 patients with chronic hepatitis C without histological activity. Group II consisted of 25 patients with chronic active hepatitis C, Group III, 17 patients with HCV-related cirrhosis and Group IV, 16 patients with HCV-related cirrhosis and HCC. Group V (2nd control group) consisted of 11 patients suffering from gastro duodenal and gall bladder diseases but negative for HCV. All cases were tested by polymerase chain reaction on liver samples for the presence of H. pylori DNA Cag A gene. Routine biochemical, radiological and RT-PCR for HCV RNA were also performed for all cases. The positivity of H. pylori PCR CagA gene in liver tissue was directly proportional to the severity of liver pathology, this being 75%, 52.9% and 32% in groups IV, III and II, respectively, which was more significant than the 1st and 2nd control groups (P < 0.001). There was a significant difference

between H. pylori PCRvalues when compared to METAVIR staging (F) in different groups (P = 0.001). Helicobacter pylori PCR (Cag A gene) was positive in about 28.2% cases of late fibrosis (F3 + F4) while positivity was (5.9%) in early fibrosis (F1 + F2) (P = 0.0001). There wassignificant difference between H. pylori PCR (Cag A gene) in liver tissue and METAVIR activity in different groups (P = 0.002) as most of H. pylori PCR–positive cases were METAVIR activity A1 and A2 (15.3% and 12.9%, respectively). There was no association between H. pylori PCR and quantitative HCV RNA (P = 0.531). Also there was no significant difference of Child-Pugh staging in the H. pylori PCR–positive group when compared to the negative group (P = 0.996). There may be an association between the presence of H. pylori (Cag A gene) in the liver and disease progression in HCV-related chronic hepatitis and cirrhosis with and without HCC.
Keywords: Cag A gene; Chronic hepatitis; Cirrhosis; H. Pylori; Hepatitis C virus; Hepatocellular carcinoma; Metavir.

98. Risk Factors for Hepatitis C Virus Acquisition and Predictors of Persistence among Egyptian Children

Esmat G., Hashem M., El-Raziky M., El-Akel W., El-Naghy S., El-Koofy N., El-Sayed R., Ahmed R., Atta-Allah M., Hamid M.A., El-Kamary S.S.and El-Karaksy H.

Liver Int., 32 (3): 449-456(2012). IF: 3.824

Background: Hepatitis C virus (HCV) has a lower prevalence in children and knowledge is limited regarding the natural outcome of HCV infection in children. **Aim:** To study the risk factors of HCV acquisition and predictors of persistence in Egyptian children. **Methods:** Children, 1-9 years of age, were evaluated for acquisition of HCV (anti-HCV positive regardless of viraemia) and persistence of HCV (anti-HCV and HCV-RNA positive) at two paediatric hepatology clinics in Cairo at enrolment and at 3 monthly intervals. Spontaneous clearance of HCV was defined as >= two positive anti-HCV antibody tests with negative HCV-RNA at least 6 months apart. **Results:** Over a 33-month-period a total of 226 children < 9 years of age were screened for HCV antibodies. Of those,146) 65 (%were anti-HCV positive of which 87 (60%) were HCV-RNA positive. The HCV acquisition was more likely to occur in older children (P = 0.003) with comorbid conditions (P < 0.01) compared to anti-HCV negative children. In a multivariate logistic regression analysis, the highest risk factors for HCV acquisition were surgical interventions [odds ratio (OR): 4.7] and blood transfusions (OR: 2.3). The highest risk factor for HCV persistence was dental treatment (OR: 16.9) and male gender (OR: 7.5). HCVpersistence was also strongly associated with elevated baseline alanine aminotransaminase (ALT) levels (OR: 4.9) and fluctuating aspartate aminotransferase (AST) levels (OR: 8.1). **Conclusion**: Although surgical interventions and blood transfusion are significant risk factors for HCV acquisition in Egyptian children, dental treatment remains the highest risk factor for HCV chronic persistence in children.

99. miR-615-5p is restrictedly expressed in Cirrhotic and Cancerous Liver Tissues and its Overexpression Alleviates the Tumorigenic Effects in Hepatocellular Carcinoma

H. M. El Tayebi, K. A. Hosny, G. Esmat, K. Breuhahn and A. I. Abdelaziz

Febs Lett, 586 (19): 3309-3316 (2012). IF: 3.538

MicroRNAs aberrant behavior in heptocellular carcinoma (HCC) plays a major role in HCC pathogenesis. miR-615-5p expression has never been evaluated in HCC. We showed that miR-615-5p was preferentially expressed in HCC, cirrhotic liver tissues and HCC cell lines, but undetected in normal livers. Forced miR-615-5p expression in HCC cell lines led to significant decrease in cell growth and migration. In-silico predication revealed insulin-like growth factor-II (IGF-II) as a potential downstream target for miR-615-5p. Forcing the expression of miR-615-5p showed downregulation of IGF-II mRNA, as well as inhibition of the luciferase activity in a luciferase reporter vector harboring the IGF-II-3'UTR target sequence. miR-615-5p acts as tumor-suppressor in HCC through targeting IGF-II
Keywords: Microrna-615-5P; Heptocellular carcinoma; Proliferation; Migration.

100. Estrogen-Related Mxa Transcriptional Variation in Hepatitis C Virus-Infected Patients

Mekky R.Y., Hamdi N., El-Akel W., Esmat G.and Abdelaziz A.I.

Transl Res., 159 (3):190-196 (2012). IF: 2.986

Sex has been reported to influence the rates of viral clearance in hepatitis C virus (HCV)-infected patients. However, little is known regarding the influence of sex on the host genetic response to HCV, which is mediated by the expression of interferon (IFN)-stimulated genes (ISGs) after the activation of janus kinase (JAK)/signal transducer and activator of transcription (STAT) pathway by IFN. Thus, we investigated gender differences in MxA genetic profile, which is a downstream reliable marker for JAK/STAT pathway activation. In all, 40 untreated HCV-infected patients were subclassified into premenopausal, postmenopausal, and male patients. The peripheral blood mononuclear cells (PBMCs) from premenopausal women showed the highest MxA gene expression compared to both postmenopausal females and males before and after IFN stimulation. The prestimulation of PBMCs with 17beta-estradiol prior to IFN treatment resulted in a decrease of MxA expression in all groups of patients. That was confirmed by the reversal of this effect using estrogen antagonist ICI182/780. This study demonstrates for the first time the presence of gender variations in the genetic response to chronic HCV infection and to interferon treatment. It also clarifies that estrogen is not the key player in enhancing the JAK/STAT pathway.

101. Transcriptional Response of MXA, PKR and SOCS3 to Interferon-Based Therapy in HCV Genotype 4-Infected Patients and Contribution of p53 to Host Antiviral Response

Hamdi N., El-Akel W., El-Serafy M., Esmat G., Sarrazin C. and Abdelaziz A.I.

Intervirology, 55(3): 210-218 (2012). IF: 2.337

Aims: To investigate the myxovirus-resistance protein A (MxA) and double-stranded RNA-activated protein kinase (PKR) genetic response to interferon (IFN) therapy in hepatitis C virus (HCV) genotype 4-infected patients. Moreover, we studied the associationbetween suppressor of cytokine signaling 3 (SOCS3) gene expression and therapy resistance in genotype 4. Finally, we investigated the novel link between p53 and IFN-stimulated genes (ISGs) in humans.

Methods: Gene expression analyses were performed in peripheral blood using TaqMan real-time PCR. Virologic response was assessed with a branched-DNA assay. Genotyping was confirmed.
Results: Early virologic responders (EVRs, n = 23) but not non-EVRs (n = 7) showed strong upregulation of PKR at week 12 of therapy compared to baseline. Both EVRs and non-EVRs showed MxA upregulation at week 12 compared to baseline. Baseline SOCS3 expression did not distinguish EVRs from non-EVRs in genotype 4. An association was found between p53 and MxA and PKR gene expression.
Conclusion: Measurement of MxA and PKR transcriptional induction during treatment may distinguish EVRs from non-EVRs in genotype 4. SOCS3 gene does not seem to be implicated in therapy resistance in genotype 4. An association between p53 and ISGs expression was shown for the first time in HCV-infected patients, further supporting the contribution of p53 to host antiviral response.
Keywords: Hepatitis C virus; Genotype 4; Interferon-α; Peripheral blood mononuclear cells; Myxovirus-resistance protein A; Double-stranded rna-activated protein kinase; Suppressor of cytokine signaling 3, P53.

102. Long Term Follow Up of Sustained Virological Responders to Interferon Therapy for Chronic Hepatitis C Genotype 4: Is there A Possibility of Relapse?

M. El-Raziky, W. El-Akel, M. Anwar, S. El-Kafrawy, M. Abdel-Hamid, MK. Mohammed, H. Kattab, T. Strickland and G. Esmat

Prime Research on Biotechnology (Prb), 2 (1): 6 - 17(2012)

Administration of pegylated interferon with ribavirin improved the virological response rates. Assessment of chronic hepatitis C outcome in sustained responders requires prolonged observation and close monitoring. To estimate the possibility of relapse among sustained virological responders (SVR) to Pegylated Interferon or Convential Interferon therapy for up to three years of follow up. Also to study the characteristics of relapsers and to test the possibility of persistence of HCV RNA in peripheral blood mononuclear cells (PBMCs) or liver tissues of SVR as a risk for relapse. Two hundred patients with chronic HCV (90% genotype IV) were included in a randomized controlled clinical trial for treatment of chronic HCV with either Pegylated Interferon or Conventional Interferon α 2b both with ribavirin for 48 weeks. Eighty-three subjects were SVR. Seventy of the responders were available for follow-up at 24 weeks interval, which was carried out by clinical assessmement and ALT levels evaluation as well as HCV RNA testing in serum, PBMCs and liver tissues. Sequencing of the HCV RNA was performed in the initial stored blood samples and in those who were viral positive during the follow up period. We followed the responders for a mean follow up period of 143 weeks (range 108-174) after end of therapy. Most of the patients (84.3%) reported the disappearance of side effects developed while on treatment with significant increase in their Body Mass Index. During the follow up period elevated ALT was found in 6% (max 1.85 folds) HCV RNA was present in 10% of the tested sera, in 1.5 % of PBMCs in absence of serum viraemia, and in none of liver tissues. Paired sequencing revealed completely different genotyping for each of the patients when comparing pre-treatment and end of follow up samples. HCV re-infection rather than relapse occurred in genotype 4 Egyptian patients with SVR to interferon based combined therapies which proved to be safe on the long term
Keywords: SVR; HCV; Relapse; Re-infection; PEG; INF.

Dept. of Internal Medicine

103. CRP and Acute Renal Rejection: A Marker to the Point

Amin Roshdy, Mohamed M. El-Khatib, Mary N. Rizk and Amal M. El-shehaby

Int. Urol. Nephrol., 44: 1251-1255 (2012). IF: 1.471

Objectives: C-reactive protein (CRP) is increased in end-stage renal disease patients. Recent studies have shown positive associations between inflammatory markers and cardiovascular mortality in kidney transplant recipients. The aim of the present study was to examine the correlation between CRP and early detection of renal allograft rejection. Furthermore, investigate the association between pretransplant levels of CRP with the development of acute renal allograft rejection as a possible predictive marker.
Methods: Ninety-one renal transplant recipients were sequentially analyzed. The median follow up of patients was 8 weeks. Basal and 8 weeks post transplant CRP levels were assessed.
Results: CRP levels were significantly higher in allograft rejection both in the pretransplant (n = 25, P = 0.001) and postransplant (n = 33, P = 0.001) phases when compared to those without rejection. By stepwise multiple regression analysis, rejection in transplanted patients was independently correlated to albumin/creatinine ratio and CRP 8 weeks after transplantation.
Conclusion: Elevated pretransplant serum CRP level is a risk predictor for acute rejection episodes and may be a useful predictive marker in the follow-up of post-transplantation patients.
Keywords: Renal transplant; CRP; Acute rejection; Inflammation.

104. Sirolimus Produced S-Shaped Effect on Adult Polycystic Kidneys after 2-Year Treatment

A. Soliman, S. Zamil, A. Lotfy and E. Ismail

Transplantation Proceedings, 44: 1251-1255 (2012). IF: 1.005

This double-blind trial followed 16 patients with autosomal dominant polycystic kidney disease (ADPKD) who received telmisartan or sirolimus plus telmisartan for 24 months. The 6-month pilot study showed a promising effect of sirolimus. The primary metric of this 2-year study was the change in total kidney volume at 12 and 24 months, as measured on magnetic resonance imaging. Secondary outcome was changes in renal function from the baseline at months 12 and 24. Among patients receiving sirolimus, the mean total kidney volume increased from 2845 mL to 3381 mL at 1 year and to 3901 mL at 2 years versus placebo values increasing from 2667 mL to 3680 mL and 3776 mL, respectively. The posttreatment mean total kidney volume increased less on sirolimus (P = .07) versus control therapy (P = .05) after 1 year, but there was no difference at 24 months. Kidney volume was stable on sirolimus to 12 months, increasing steadily to 24 months. In contrast, kidney volume increased steadily among patients on telmisartan alone both at 12 and 24 months. In conclusion, sirolimus appeared to retard kidney

growth among patients with ADPKD during the first 6 months of therapy but not to halt growth thereafter, thus eliciting S-shaped effect. The dose of sirolimus (1 mg per day) was associated with a low rate of side effects similar those observed in kidney transplantation.
Keywords: Sirolimus; Polycystic kidneys; Renal failure.

105. The Growing Burden of End-Stage Renal Disease in Egypt

Amin Roshdy Soliman, Ahmed Fathy and Dalia Roshd

Renal Failure, 34: 425-428 (2012). IF: 0.824

Background: End-stage renal disease (ESRD) has significantly increased in developing countries such as Egypt. Diabetes mellitus is still the leading cause of ESRD, while numbers of hypertensive patients among that population have significantly risen.
Materials and Methods: The data presented in this article were obtained from various nephrology centers in response to the specific questionnaires distributed by the researchers.
Results: Hemodialysis is available in most parts of the country. Continuous ambulatory peritoneal dialysis and renal transplantation programs have been performed in few nephrology centers. Costs for dialysis and renal transplantation are still unaffordable for most patients with ESRD. Since the cost burden has significantly increased, nephrology services should be changed from curative medicine to preventive medicine. Currently, the Egyptian Ministry of Health plans to have a detection and prevention program for chronic kidney disease.
Conclusion: These data give the impression that both incidence and prevalence rates of ESRD in various areas of Egypt are increasing over time, although the rates presented here are far lower than expected.
Keywords: Incidence; Prevalence; End-stage renal disease; Egypt.

Dept. of NeuroSurgery

106. Bilateral Occlusion of the Foramina of Monro after Third Ventriculostomy

Ehab El Refaee, Joerg Baldauf and Henry W. S. Schroeder

Jounal of Neurosurgery, 116: 1333-1336 (2012). IF: 2.965

Occlusion of both foramina of Monro following third ventriculostomy is a very rare complication. The authors present the case of a 30-year-old female who underwent endoscopic third ventriculostomy (ETV) for occlusive hydrocephalus due to aqueductal stenosis. Thirty months after the ETV, she reported recurrent headaches. Magnetic resonance imaging demonstrated bilateral enlargement of the lateral ventricles with a collapsed third ventricle caused by bilateral stenosis of the foramina of Monro. Left-sided endoscopic foraminoplasty and stenting of the left foramen of Monro were performed with immediate neurological improvement.
Keywords: Endoscopic third ventriculostomy; Foraminoplasty; Foramen of monro; Stent; Hydrocephalus; Functional neurosurgery.

Dept. of Ophthalmology

107. Repeatability of Pachymetric Mapping using Fourier Domain Optical Coherence Tomography in Corneas with Opacities

Nehal M. Samy El Gendy, Yan Li, Xinbo Zhang and David Huang

Cornea, 31: 418-423 (2012). IF: 1.733

Purpose: To evaluate the repeatability of Fourier domain optical coherence tomography (OCT) pachymetric mapping in patients with corneal opacities and to assess the reliability of Fourier domain OCT with 830 nm wavelength as a pachymetric measurement tool in opaque corneas.
Methods: A Fourier domain OCT system was used to map the corneal thickness of patients with corneal scars or dystrophy. A retrospective study of a consecutive series was conducted. The repeatability was measured using pooled standard deviation of repeated measurements. A slit-scanning tomography device provided pachymetric mapping for comparison.
Results: Seventeen eyes of 12 patients with corneal scars (7 trauma and 3 post infection) or dystrophy (2 Reis–Bucklers and 5 granular dystrophy) were included. The posterior corneal boundary was detectable in all cases. The average corneal thickness measured by OCT was 536 ± 89 μm in central 2 mm area, 553 ± 76 μm in pericentral 2- to 5-mm area, and 508 ± 93 μm for the minimum corneal thickness. The slit-scanning tomography central corneal thickness, 433 ± 111 μm, was significantly lower than OCT readings (mean difference −91.1 ± 33.3 μm, P = 0.002). Repeatability of the OCT measurements was 2.1 μm centrally and 1.2 μm pericentrally.
Conclusion: Pachymetric mapping with Fourier domain OCT was highly repeatable. Fourier domain OCT is a reliable pachymetric tool in opaque corneas. In comparison, corneal thickness measured by the slit-scanning tomography is significantly thinner than those measured by the Fourier domain OCT in the presence of corneal opacities.
Keywords: Fourier domain optical coherence tomography; Pachymetry map; Corneal opacities; Repeatability; Corneal scar; Corneal dystrophy.

108. Role of Prisms in the Management of Horizontal Deviations

Rehab Rashad Kassem

Advances in Eye Research, 2 (2012)

Prisms have a role both in the evaluation and in the treatment of strabismus. Prisms are used to measure the angle of strabismus, using 3 tests: Krimsky test, alternate prism and cover test or simultaneous prism and cover test. The prism is applied with its apex towards the deviation in all 3 tests. In Krimsky test, light is shone on the patient's eyes and the prism power is increased till the light reflex is central in both eyes. In the alternate prism and cover test, the alternate cover test is performed and the prism power is increased till the deviation is neutralized as determined when the refixation movement of the eye is abolished. In the simultaneous prism and cover test, the cover-uncover test is performed and the prism power is increased till the deviation is neutralized. The prism adaptation test is used to disclose the full deviation and determine the potential for fusion. In this test, Fresnel prisms equivalent to the patient's measured deviation are worn for 1 week. If the deviation increases, the Fresnel prisms are

changed to ones of a higher power, and the process is repeated till stability of the deviation. Surgery is performed for the full deviation. In case of paralytic strabismus, the patient complains of diplopia. Surgery has to be postponed for 6 months to wait for spontaneous resolution. Meanwhile, prisms are also used to abolish diplopia as a temporary measure

Dept. of Orthopaedic

109. Critical Analysis of Tibial Fracture Healing Following Unreamed Nailing

Salem KH.

Int. Orthop, 36 (7): 1471-1477 (2012). IF: 2.025

Purpose: Unreamed nails have revolutionised the treatment of tibial shaft fractures. Many authors, however, have reported increasing bone healing complications with these implants. Unfortunately, few studies have addressed the factors affecting bone healing after unreamed tibial nailing.
Methods: One-hundred and sixty tibial fractures in 158 patients (mean age 39.5 years) fixed using unreamed nails were reviewed. There were 78 AO type-A, 65 type-B and 17 type-C fractures (115 closed and 45 open fractures). Twelve patient, injury and surgery variables were analysed for their influence on fracture healing.
Results: Union occurred in all fractures after a mean time of 24.3 weeks. Additional surgery to achieve union, apart from dynamisation, was done in nine (6%) cases. The most important variables affecting healing were the mechanism of trauma (p=0.005), fracture site gap (p=0.01), degree of comminution (p=0.0003), associated soft tissue injuries (p=0.02) and the time to dynamisation (p=0.0001).
Conclusions: High-energy trauma and fracture comminution have a negative impact on bone union and require close follow-up. It is essential to avoid distraction over three millimetres with unreamed nailing. Dynamisation is advised within ten weeks in axially stable fractures to encourage bone healing and avoid failure of the locking screws.

110. Resistant Plantar Fasciopathy: Shock Wave versus Endoscopic Plantar Fascial Release

Yasser A. Radwan, Ali M. Reda Mansour and Walid S. Badawy

International Orthopaedics, 36: 2147-2156 (2012). IF: 2.025

Purpose: To compare the results of Extracorporeal shock wave (ESWT) with a modified endoscopic plantar fasciotomy technique for the treatment of recalcitrant heel pain.
Method: Sixty-five patients suffering from chronic heel pain that failed to respond to standard nonoperative methods were randomized to undergo either high-energy extracorporeal shock wave therapy (group 1), or modified endoscopic plantar fasciotomy (group 2). The primary outcome measure was the reduction of pain in the two groups from base line to month three post intervention at the first few steps in the morning. In addition, patients' functions were assessed using American Orthopedic Foot and Ankle-Hindfoot Scale (AOFAS) at week three, month three, and month 12 postintervention, and finally, Roles and Maudsley scores were assessed. The primary analysis was intention-to-treat and involved all patients who were randomly assigned.
Results: Both groups achieved improvement from the base line at 3 weeks, 3 months and 12 months post-intervention. The success rate (Roles and Maudsley score excellent and good) in the ESWT group at month 12 was 70.6 %, while in the fasciotomy group, the success rate was 77.4 % ($p = 0.19$).
Conclusion: In patients who had experienced failure of conventional treatment of plantar fasciopathy, both endoscopic plantar fasciotomy and shock wave therapy can be potentially helpful lines of management.
Keywords: Endoscopic; Plantar fascia; Shock wave.

111. Percutaneous Distal Metatarsal Osteotomy versus Distal Chevron for Correction of Mild-To-Moderate Hallux Valgus Deformity

Yasser A. Radwan and Ali M. Reda Mansour

Archives of Orthopaedic and Trauma Surgery,132: 1539-1546 (2012). IF: 1.369

Purpose: A lot of procedures were described for managing hallux valgus deformity. Percutaneous metatarsal osteotomies have received increasing recognition in the previous decade. The proposed benefits revolve primarily around the shorter surgical time, lower incidence of complications, and higher patient satisfaction. However, there is insufficient evidence to determine whether this technique is comparable to traditional open approaches.
Materials and methods: A total of 64 consecutive feet (53 patients) with mild-to-moderate symptomatic hallux valgus were randomly assigned into two groups to compare the results of percutaneous distal metatarsal osteotomy (group I, 31 feet) and distal chevron osteotomy (group II, 33 feet). All patients were clinically assessed using the American Orthopedic Foot and Ankle Society (AOFAS) scoring system. Radiographical assessment was done using the hallux valgus angle (HVA) and intermetatarsal angle (IMA). Results: The mean correction of HVA and IMA achieved in group I was 14.4° and 4.8°, respectively, while in group II, it was 13.1° and 3.9°, respectively. The mean AOFAS score improved from a pre-operative of 44.6 points to 90.2 points in group I, and from 47.5 points to 87.7 points in group II. In group I, 26/29 patients (89.6 %) were happy with the cosmetic results of the surgery, compared to 20/31 patients (64.5 %) in group II.
Conclusion: The results of this study support the idea that percutaneous distal metatarsal osteotomy yields good functional and radiological result and is associated with a high degree of postoperative patient satisfaction.
Keywords: Hallux valgus; Percutaneous; Osteotomy.

112. Electrostimulation with or Without Ultrasound-Guidance in Interscalene Brachial Plexus Block for Shoulder Surgery

Mohamed H. Salem, Jörg Winckelmann, Peter Geiger, Hans-Hinrich Mehrkens and Khaled H. Salem

J. Anesth, 26 (4): 610-613 (2012). IF: 0.831

In a prospective controlled trial to compare conventional interscalene brachial plexus block (ISBPB) using anatomic landmarks and electro-stimulation with a combined technique of ultrasound guidance followed by nerve stimulation, 60 patients were randomized into 2 matched equal groups: Group A using nerve stimulation (NS) alone and Group B using the combination of ultrasound and NS. The time to detect the plexus (3.9 ± 4 min

in Group A and 3.3 ± 1.4 min in Group B) was not significantly different. We needed to reposition the needle once (n = 13) or twice (n = 4) in Group B. First-shot motor response was achieved in all but one patient in Group A; here we were only able to locate the plexus by use of ultrasound. None of the patients needed general anaesthesia. There were no significant differences between postoperative pain, motor power, or patient's satisfaction. ISBPB seems similarly effective using electro-stimulation and ultrasound if performed by experienced anesthesiologists.

Keywords: Ultrasound; Nerve stimulation; Interscalene brachial plexus block.

Dept. of Pediatrics

113. Biomarkers and Early Detection of Late Onset Anthracycline-Induced Cardiotoxicity in Children Hematology

Sherief LM., Kamal AG., Khalek EA., Kamal NM., Soliman AA. and Esh AM

Hematology, 17 (3): 151-156 (2012). IF: 1.487

The main strategy for minimizing anthracycline cardiotoxicity is early detection of high-risk patients.

Aim of the Study: To investigate the role of cardiac biomarkers; cardiac troponin T (cTnT) and N-terminal probrain natriuretic peptide (NT-pro-BNP), and tissue Doppler imaging (TDI), as early predictors of chronic cardiotoxicity in survivors of acute leukemia.

Patients and Methods: We carried a retrospective study on 50 asymptomatic survivors of acute leukemia who received anthracycline in their treatment protocols. All patients underwent blood sampling to determine the levels of NT-pro-BNP and cTnT along with conventional echocardiography and TDI.

Results: None had abnormal cTnT levels. About 20% had abnormal NT-pro-BNP levels. Diastolic dysfunction of the left ventricle was the most significant in conventional echocardiography. TDI was superior as it detected myocardial affection in 10% more than echo. TDI demonstrated global myocardial damage with significant aberrations in peak myocardial velocities and ratios.

Conclusions: NT-pro-BNP can be used as a sensitive cardiac biomarker in monitoring of anthracycline-induced cardiotoxicity. Follow up is essential to validate the role of NT-pro-BNP as an early marker for late onset anthracycline-induced cardiotoxicity. Tissue Doppler is marvelous as it could detect early cardiac dysfunction even in those with normal study by conventional echocardiography.

Keywords: Biomarkers; Anthracycline; Cardiotoxicity; Leukemia; Children.

114. Diarrhea in Neutropenic Children with Cancer: an Egyptian Center Experience, with Emphasis on Neutropenic Enterocolitis

Laila M. Sherief, Mohamed R. Beshir, Naglaa Mohamed Kamal, Maha K. Gohar and Ghada K. Gohar

Indian Journal of Medical and Paediatric Oncology, 33 (2): 95-101 (2012)

Background: Diarrhea is a frequent complication in children with cancer who received intensive chemotheraputic regimens. It may be caused by several factors, neutropenic enterocolitis (NE) being the most serious.

Aim: To study diarrhea in neutropenic cancer patients in the pediatric age group, with its underlying etiologies and risk factors, especially the bacterial causes, with special concern on NE.

Materials and Methods: This study was carried out at the Pediatric Hematology and Oncology Units, Zagazig University Hospitals, Egypt, from January 2009 to September 2010. All children with malignant diseases who are ≤12 years of age were included. Patients who were neutropenic (<500/ mm(3)) on admission or who became neutropenic during their stay in the hospital were monitored regularly (daily) for diarrhea. Neutropenic cancer patients with diarrhea were grouped into two groups: Group 1, with NE, and group 2, with neutropenic diarrhea rather than NE. On the first day of diarrhea, patients were subjected to complete blood count, blood cultures, stool microscopy and culture. Abdominal ultrasonography was carried out within 3 days of diarrhea. RESULTS: A total of 200 children ≤12 years old, suffering from different malignancies, with a total of 180 neutropenic episodes were followed. Diarrhea was observed in 100 episodes (55.5%). NE constituted 16% of these diarrheal episodes. All patients with NE had significantly more severe neutropenia, and this was of longer duration than the other group. All patients with NE were febrile, with 100% positive blood culture. Stool analysis diagnosed giardiasis in 4.8% of the non-NE patients and in none of the NE patients, while stool culture was positive in 75% of the NE patients compared with 40.5% of the other group.

Conclusions: Diarrhea is a common complication in neutropenic cancer children. Gram negative bacteria and Candida are the most incriminated pathogens. Duration and severity of neutropenia carry a great risk for the development of NE.

Keywords: Cancer; Children; Diarrhea; Neutropenia; Neutropenic enterocolitis.

Dept. of Physiology

115. Study of the Effect of Mesenchymal Stem Cells on Colitis: Possible Role of Galectins

Nashwa El-Tablawy, Laila Ahmed Rashed and Magdy Fouad Youakim

Life Science Journal, 10 (2): 711-721 (2012). IF: 0.073

Background: The anti-inflammatory and reparative properties of mesenchymal stem cells (MSCs) make them a promising tool for treating inflammatory and immune-mediated disorders. T cell dysfunction is undoubtedly a key feature in the pathogenesis of inflammatory bowel disease (IBD). MSCs suppress proliferation and alloreactivity of T cells, where several signaling molecules contribute to this effect. Galectins, a family of β- galactoside binding proteins, now emerge as a main regulator of MSCs immunomodulatory function. However, whether MSCs can be used for treatment of IBD still remains unclear.

Aim: In this study, a dextran sulfate sodium (DSS) - induced colitis model was used to test the effect of infused bone marrow-derived MSCs on immunomodulatory molecules and if they could exert anti-inflammatory effects against experimental colitis.

Methods: The study was carried on female albino rats, which were divided into three groups; Group 1 [Control group], Group 2 [Dextran sulfate sodium (DSS)-induced colitis group] and Group 3 [MSCs treated group]. Serum values of pro-inflammatory cytokines [tumor necrosis factor-alpha (TNF-α) and interleukin 6

(IL6)] as well as anti- inflammatory cytokines [interleukin 10 (IL10) and prostaglandin E_2 (PGE_2)] in the three groups were evaluated quantitatively by enzyme-linked immunosorbent assay (ELISA). Quantitative analysis of galectins 1, 2, 3 and 4 as well as basic fibroblast growth factor (bFGF) gene expression was done by Real Time PCR. Colon sections were stained with hematoxylin and eosin and examined for histopathological changes.
Results: DSS-induced colitis group showed similar findings to that of ulcerative colitis in human, including body weight loss, bloody diarrhea, mucosal inflammation and ulceration. PKH26 labeled bone marrow-derived MSCs accumulated in inflamed regions of the colon, mainly in the submucosa and significantly ameliorated the clinical and histopathologic severity of DSS-induced colitis. Pro-inflammatory cytokines (TNF-α and IL6) were significantly lower in MSCs-treated rats compared to DSS-induced colitis rats. On the contrary, anti-inflammatory cytokines IL10, PGE2 and bFGF were significantly higher in MSCs-treated rats compared to DSS-induced colitis rats. Galectin 1 (Gal1), Galectin 2 (Gal2), Galectin 3 (Gal3) and Galectin 4 (Gal4) were significantly higher in MSCs-treated rats compared to DSS-induced colitis rats.
Conclusions: Systemic infusion of bone marrow-derived MSCs may exert therapeutic efficacy on acute DSS-induced colitis in rats through their immonumodulatory and anti-inflammatory effects, which demonstrates the feasibility of using bone marrow-derived MSCs to treat IBD. Also the results presented in this study illustrate the involvement of the measured members of the endogenous galectin family (galectins 1, 2, 3 and 4) in the experimental model of colitis. The changes in their levels during inflammation evidenced that they play important role in MSCs immunomodulatory and anti-inflammatory actions.
Keywords: Mesenchymal stem cells; Galectins; Colitis.

Dept. of Public Health

116. Schistosomiasis and Soil-Transmitted Helminths among an Adult Population in a War Affected Area, Southern Kordofan State, Sudan

Alaa Hammad Ali Abou-Zeid, Tigani Abdullah Abkar and Rashid Osman Mohamed

Parasites and Vectors, 5 (133): (2012). IF: 2.937

Schistosomiasis remains a major health problem at global and national levels, contributing to the vulnerability of the poor people in Sudan. Southern Kordofan is affected by Schistosomiasis but the disease prevalence was unknown. Methods 1826 adults were recruited in a community-based survey. Each recruited subject submitted at least 10 ml urine and one stool sample; they were also interviewed and filled in a questionnaire. Results 1826 adults were recruited in a community-based survey. Each recruited subject submitted at least 10ml urine and one stool sample; they were also interviewed and filled in a questionnaire. The prevalence of S. haematobium was 6.9% among the adult population. We estimated S. mansoni prevalence as 0.0%. S. haematobium infection was focally distributed at the village level. The infection was associated with non preference of latrine use – if available, use of open water source for household affairs such as cleaning and also with the history of schistosomiasis treatment. The prevalence of soil transmitted helminths (STH) was also reported as high at 7.8%, and two species were identified; Hymenolepis nana and Giardia lamblia. Conclusion Schistosomiasis is a significant health problem among the adult population in Southern Kordofan. The estimated prevalence will serve as a guide in developing a Schistosomiasis Control Program and applying treatment plans.
Keywords: Schistosomiasis; Household; S. haematobium; S. mansoni; Soil-transmitted helminths; Southern kordofan; Sudan.

Dept. of Surgery

117. Tibial Angioplasty in Diabetic Patients: Should All Vessels Be Dilated?

Sayed A., Taha A., Elkholy M., Gelsharnobi H. and Khairy H.

International Angiology, 31: 239-244 (2012). IF: 1.652

Aim: Patients with severe critical limb ischemia (CLI) due to tibial disease are commonly treated nowadays with tibial angioplasty. However, the benefits and complications of treating "more than one tibial vessel" have not yet been determined. This study compares the outcome of angioplasty of one vessel versus that of more than one vessel in patients with CLI due to tibial disease.
Methods: We retrospectively reviewed all consecutive diabetic patients with tibial disease with no concomitant proximal lesions who were treated by angioplasty. Among 82 patients with isolated tibial disease 48 patients were selected. All patients had to have more than one diseased tibial vessel that can be treated by angioplasty. Group A patients (N.=25) had only one tibial vessel treated while group B patients (N.=23) had more than one tibial vessel treated. We compared both groups with respect to patients' characteristics, lesion morphology, and limb salvage rate.
Results: Lesion morphology was worse in group A than B: anterior tibial artery showed more long lesions (17 vs. 8), more multiple lesions (22 vs. 11), and peroneal artery showed more long lesions (23 vs. 10), more multiple lesions (24 vs. 12), and more occlusions (18 vs. 10). Limb salvage rate at 12 months was similar (91%) in both groups. There were 5 complications in each group.
Conclusion: The lesion morphology was worse in group A. Simpler lesions in group B motivated performing more than one vessel angioplasty. There was no difference in the limb salvage rate in the medium term among both groups. Additional vessels angioplasty in less diseased arteries was not associated with substantial additional morbidity.
Keywords: Angioplasty; Lower extremity; Ischemia.

118. Quantitative Analysis of Aesthetic Results: Introducing a New Paradigm

Al Aly, Andre Tolazzi, Shehab Soliman and Albert Cram

Aesthetic Surgery Journal, 32 (1): 120-124 (2012). IF: 1.649

When perusing a plastic surgery journal or attending a plastic surgery meeting, it is evident that the results shown in any given aesthetic presentation are considered by some to be excellent, whereas others deem the same results to be average or less than optimal. This disparity occurs when the interpretation of posttreatment results is based solely on subjective opinion. Certainly, the task of quantifying the results of aesthetic surgery (rather than just subjectively assessing their quality) is immense, but it is essential for aesthetic surgery to follow the trend toward evidenced-based medicine (EBM) that is becoming ingrained in the fabric of the medical profession as a whole.

In fact, the quantification of aesthetic surgery results has more far-reaching ramifications than simply determining objective measures by which results can be judged. Objectively assessing the results of our cosmetic surgeries has the potential to change the way surgery is performed. As we all learn more about the philosophies behind EBM (eg, in the Editorial[1] by Dr. Felmont Eaves and Dr. Andrea Pusic in this month's issue, on page 117), it is helpful to also find support among colleagues who have begun implementing it in their own practices.

To that end, we would like to share with you the ways in which adding quantitative outcomes assessment, which is the cornerstone of EBM, has changed some of our own clinical approaches. Rigorous research has been conducted and published on how to quantify (instead of merely qualify) patient satisfaction outcomes.[2-4] However, as Millard5 taught us, patient satisfaction or dissatisfaction with surgical results should never dissuade us from critically evaluating the results themselves objectively. Thus, it is necessary for us, as plastic surgeons, to adopt a twopronged approach to the critical evaluation of our surgical results: we must understand our patients' satisfaction/ dissatisfaction with those results and conduct objective evaluations of them.

Our ultimate goal in this editorial is to introduce a practical framework for incorporating quantitative analysis measurements into the clinical practice of aesthetic surgery. To begin, it is important that we recognize that what is considered "aesthetic" is based, at least partially, on previous life experiences. A classic example of this from popular media is the nevus on supermodel Cindy Crawford's left cheek. It is an abnormality, but because a previous cultural beauty icon, Marilyn Monroe, had a similar nevus, Crawford's nevus is considered attractive.

There is no method by which we can quantitate this aspect of aesthetics because it varies tremendously between individuals and can sometimes even lead to certain individuals finding considerably unattractive appearances pleasing. Thus, our discussion about quantifiable results will be limited to the "non-environmentally influenced" aspects of aesthetics.

Keywords: Quantitative analysis; Aesthetic results; New paradigm.

Faculty of Oral Dental Medicine

Dept. of Oral and Maxillofacial Surgery

119. Autogenous Transplantation of Maxillary and Mandibular Molars

Maha Negm, Sameh Seif, Khaled El Hayes and Galal Beheiri

Life Science Journal 9 (4): 2804-2812 (2012) IF: 0.073

Objectives: To evaluate the validity and reliability of the autogenous transplantation of maxillary ormandibular molars.

Methods: Ten patients received either a mandibular or maxillary third molar to replace a nonrestorable mandibular first or second molar. The clinical parameters were mobility and probing pocket depth.Radiographic assessment of progress of root development, periapical or periodontal radiolucencies, root resorptionand ankylosis, was done by using digital panoramic radiographs with1:1 magnification correction. All clinicalparameters and panoramic radiographs were taken at 2, 4, 6 and 9 months postoperatively.

Results: The pocketdepth readings and teeth mobility showed statistical significant decrease throughout the study. Regarding theradiographic results, no root resorption or ankylosis and 80% of patients had root development with no observedradiolucencies.

Conclusion: The transplantation of developing molars in growing adults is a viable and reliabletreatment option.

Keywords: Autogenous transplantation; Third molars; Immature root.

Dept. of Oral Pathology

120. Stem Cell-Calcium Phosphate Scaffolds for Bone Engineering

R. Khashaba and M. Moussa

European Cells and Materials, 23 (2012). IF: 3.028

Introduction: Seven million people suffer bone fractures in the US each year [1, 2], and muculoskeletal conditions cost $215 billion annually [1]. These numbers are predicted to increase rapidly as the population ages. Allografts and xenografts raise concerns of immunorejection and disease transmission. Recent advances in tissue engineering have led to the development of new materials and strategies offering immense promise for these patients. The introduction of stem cells into the clinical settings opens new horizons. New injectable calcium phosphate scaffolds with the ability to deliver cells and bioactive factors in minimally invasive surgeries make attractive alternatives to the current conventional treatments. The aim of this study was to 1- develop injectable, mechanically strong titanate- loaded calcium phosphate scaffolds, characterize the physicochemical and biological properties of developed scaffolds. 2- evaluate the cytotoxicity of human bone marrow mesenchymal stem cells (hBMSCs) encapsulated in vitro 3- investigating the effects of CPC-titanate scaffold on the adhesion, proliferation and differentiation of the hBMSCs.

Methods: Cement powder was combined with either polymethylvinyl ether maleic acid or polyacrylic acid and ceramic titanate nanopaticles to obtain Type I and Type II scaffolds respectively. Commercial injectable calcium phosphate cement was selected as control. Phase composition was examined by x-ray diffraction. Setting time, injectability, compressive and diametral strengths were measured and compared with the control. Set scaffolds were placed in cell culture with (hBMSCs). Cellular function, alkaline phosphatase activity (ALP) and osteogenic differentiation were assessed.

Results: X-ray diffraction patterns of Type I and Type II scaffolds showed hydroxyapatite. Setting time was 5-15 minutes. The scaffolds showed superior injectability, significantly higher compressive and diametral strengthsvalues compared to commercial cement. Percentage of live (hBMSCs) attaching to scaffolds increased to 99% at 14 days. Cells proliferated to (1808±317cells/mm2) at 14 days.

Dept. of Orthodontics

121. Three-Dimensional Prospective Evaluation of Tooth-Borne and Bone-Borne Surgically Assisted Rapid Maxillary Expansion

Rania M. Nada, Piotr S. Fudalej, Thomas J.J. Maal, Stefaan J. Bergé, Yehya A. Mostafa and Anne Marie Kuijpers-Jagtman

J. of Craniomaxillofacial Surgery, 40: 757-762 (2012). IF:1.643

Aim: To three-dimensionally (3D) assess the long-term effects of tooth-borne and bone-borne surgically assisted rapid maxillary expansion (SARME).
Subjects and methods: This prospective cohort study comprised 45 consecutive skeletally mature nonsyndromic patients with transverse maxillary hypoplasia. In 28 patients, a tooth-borne distractor (Hyrax) was used for expansion, whereas in the remaining 17 a bone-borne distractor (transpalatal distractor, TPD) was used. Cone beam computed tomography (CBCT) scans were performed before treatment (T0) and 22 months later, after fixed appliance treatment (T1). 3D models were constructed from CBCT data and superimposed using voxel-based matching. Distance maps between the superimposed models were computed to evaluate the amount of skeletal changes.
Results: The distance maps of the superimposed models showed positive distances on the right and left posterior alveolar segments of the maxilla indicating lateral expansion. The anterior maxillary region showed negative distances or posterior displacement and remodelling of the anterior alveolar region. There was no statistically significant difference between TPD and Hyrax for the three alveolar segments (p values ranged 0.63e0.81).
Conclusion: Bone-borne and tooth-borne SARME were found to produce comparable results at the end of fixed appliance treatment regarding skeletal changes.
Keywords: Tooth-borne; Bone-borne; Surgically assisted rapid maxillary expansion; (SARME); Hyrax.

122. Dental Crowding as a Caries Risk Factor: A Systematic Review

Hend Salah Hafez, Sherif Mohamed Shaarawy, Ahmed Awadh Al-Sakiti and Yehya Ahmed Mostafa

American Journal of Orthodontics and Dentofacial Orthopedics, 142: 443-450 (2012). IF: 1.381

Introduction: The association between dental crowding and dental caries has long been accepted because of increased food accumulation and plaque retention in areas of crowding. The aim of this review was to evaluate this potential causal relationship systematically.
Methods: Six electronic databases were accessed, supplemented by manual searching of the references of the relevant retrieved articles, peer-reviewed orthodontic journals, and gray literature. Search terms included caries, decay, crowding, and irregularity. Non-English articles were excluded from the review in the study-selection stage. Data extraction and evaluation of primary studies were performed independently by 2 reviewers.
Results: The initial search retrieved 6914 citations. However, only 18 articles met the inclusion criteria. The qualitative systematic review included 8 studies, with articles of low or moderate quality. No association between crowding and caries was reported in 4 studies, a significant negative correlation was found in 2 studies, 1 study showed a direct and significant relationship, and another study showed a positive association in the mandibular anterior region but an inverse correlation in the maxillary posterior region.
Conclusions: To date, there are no high-quality studies to resolve the possible association between dental crowding and caries; further high-quality longitudinal studies are needed to clarify this relationship.
Keywords: Dental crowding; Dental caries; Systematic review; Decay.

123. Inter-Occlusal Separation in CBCT Imaging: Rationale and Method

Amr El-Beialy and Yehya Mostafa

Open Journal of Medical Imaging, 2: 76-79 (2012)

A major advantage of CBCT is the ability to allow single-step data acquisition that computes all our diagnostic infor-mation and substitutes several conventional procedures of record taking. Yet, there are several protocols for CBCT im-aging as regards the interocclusal separation, each with a drastic shortcoming. The authors herein propose a protocol that offers acceptable inter-occlusal separation during CBCT imaging using a radiolucent splint that guarantees repro-ducibility, undisrupted facial form, centric condylar position concurrently with feasibility for occlusal analysis, separa-tion of the maxillary and mandibular teeth and hence digital simulation of the orthodontic treatment.
Keywords: Diagnosis; Diagnostic imaging; Radiography; Cone-beam computed tomography.

Faculty of Pharmacy

Dept. of Analytical Chemistry

124. Development and Validation of Spectrophotometric Methods for Simultaneous Determination of Sitagliptin and Simvastatin in Binary Mixture

Sherif Abdel-Naby Abdel-Gawad and Zeinab Abd el-Aziz El-Sherif

European Journal of Chemistry, 3: 447-454 (2012)

Simple, selective and precise spectrophotometric methods were adopted for simultaneous determination of sitagliptin (SIT) and simvastatin (SIM) in new co-formulated pharmaceutical dosage form. In the first method, SIT was determined by measuring its zero order absorbance at 266.4 nm in the range of 40-360 µg/mL in the presence of up to 70% of SIM. While, the two cited drugs were determined simultaneously using third derivative method by measuring the sum of peak amplitudes (peak & valley) at 275.3-280.3 nm and 240.5-244.7 nm in the ranges of 40-360 µg/mL and 2-18 µg/mL for SIT and SIM, respectively. In the second method, the first derivative of ratio spectra method was applied by measuring the peak height at 255.9 and 275.2 nm using 18 µg/mL SIM as devisor over a concentration range of 40-360 µg/mL of SIT and at 228.3, 240.5 and 248 nm using 100 µg/mL of SIT as divisor over a concentration range 2-18 µg/mL SIM. In the third method the ratio subtraction spectrophotometric method was used, where SIM can be determined by dividing the spectra of the mixtures by the spectrum of SIT (40 µg/mL) followed by subtracting the constant absorbance value of the plateau, then finally multiply the produced spectrum by the spectrum of the devisor. Laboratory prepared mixtures were successfully tried for the three compositions of tablets (10, 20 and 40 mg of SIM) with 100 mg of SIT. The developed methods were validated as per International Conference of Harmonization guidelines.
Keywords: Sitagliptin; Validation; Simvastatin; Ratio subtraction; Spectrophotometric analysis; Derivative spectrophotometry.

125. Stability-Indicating PLS and PCR Chemometric Methods for the Determination of Rosuvastatin in Presence of its Two Acid Degradation Products

Nadia M. Mostafa, Amr M. Badawey, Nesrine T. Lamie and Abd El-Aleem A.E. B.

International Journal of Drug Targets, 3 (2): 149-159 (2012)

Two multivariate calibration methodsincluding principal component regression (PCR) and partial least square (PLS), have been usedfor the determination of rosuvastatin calcium in the presence of its acid degradation products. ThePCR and PLS techniques are usefulin spectral analysis due tothe simultaneous inclusion of many spectral wavelengths instead of the single wavelength used in derivativespectrophotometry, thus a great improvement in the precision and predictive abilities of these multivariate calibrations is observed. Acalibrationset wasconstructed for the mixture and the best model was used for the prediction of the concentrate ion of the selecteddrug. The proposed procedures were applied successfully in the determination of rosuvastatin calciumin laboratoryprepared mixturesandin commercial preparations. Rosuvastatin calcium was analyzed with mean accuracies 99.93 ± 0.699 and 0.630±100.06 using the PCR and PLS methods respectively. The validity of the proposed methods was assessed using the standa rd addition technique. Th E prop osed procedures were found to be rapid and simple and required no preliminary separation. They can t herefore be used for the routine analysis of rosuvastatin in quality-control laboratories.

Keywords: Rosuvastatin; Chemometry; Stability indicating method.

Dept. of Bio Chemsitry

126. Anti-Inflammatory Therapy in Type 1 Diabetes

Bernd Baumann, Heba H. Salem and Bernhard O. Boehm

Current Diabetes Reports, 12 (5): 499-509 (2012). IF: 2.496

Type 1 diabetes (T1D) is a multi-factorial, organ-specific autoimmune disease in genetically susceptible individuals, which is characterized by a selective and progressive loss of insulin-producing β-cells. Cells mediating innate as well as adaptive immunity infiltrate pancreatic islets, thereby generating an aberrant inflammatory process called insulitis that can be mirrored by a pathologic autoantibody production and autoreactive T-cells.

In tight cooperation with infiltrating innate immune cells, which secrete high levels of pro-inflammatory cytokines like IL-1β, TNFα, and INFγ effector T-cells trigger the fatal destruction process of β-cells. There is ongoing discussion on the contribution of inflammation in T1D pathogenesis, ranging from a bystander reaction of autoimmunity to a dysregulation of immune responses that initiate inflammatory processes and thereby actively promoting β-cell death. Here, we review recent advances in anti-inflammatory interventions in T1D animal models and preclinical studies and discuss their mode of action as well as their capacity to interfere with T1D development.

Keywords: Type 1 diabetes; Insulitis; β-cell death; Inflammation; Anti-inflammatory therapy; Combination therapy; NF-kB; NOD mice.

Dept. of Microbiology and Immunology

127. Phispy: A Novel Algorithm for Finding Prophages in Bacterial Genomes that Combines Similarity- and Composition-Based Strategies

Sajia Akhter, Ramy K. Aziz and Robert A. Edwards

Nucleic Acids Research 40 (16): 1-13 (2012) IF: 8.026

Prophages are phages in lysogeny that are integrated into, and replicated as part of, the host bacterial genome. These mobile elements can have tremendous impact on their bacterial hosts' genomes and phenotypes, which may lead to strain emergence and diversification, increased virulence or antibiotic resistance. However, finding prophages in microbial genomes remains a problem with no definitive solution.

The majority of existing tools rely on detecting genomic regions enriched in protein-coding genes with known phage homologs, which hinders the *de novo* discovery of phage regions. In this study, a weighted phage detection algorithm, *PhiSpy* was developed based on seven distinctive characteristics of prophages, i.e. protein length, transcription strand directionality, customized AT and GC skew, the abundance of unique phage words, phage insertion points and the similarity of phage proteins.

The first five characteristics are capable of identifying prophages without any sequence similarity with known phage genes. *PhiSpy* locates prophages by ranking genomic regions enriched in distinctive phage traits, which leads to the successful prediction of 94% of prophages in 50 complete bacterial genomes with a 6% false-negative rate and a 0.66% false-positive rate.

Keywords: Genomics; Bacteriophage; Prophages; Genomc annotation; Microbiology.

128. Tracing the Evolutionary History of the Pandemic Group a Streptococcal M1T1 Clone

Peter G. Maamary, Nouri L. Ben Zakour, Jason N. Cole, Andrew Hollands, Ramy K. Aziz, Timothy C. Barnett, Amanda J. Cork, Anna Henningham, Martina Sanderson-Smith, Jason D. McArthur, Carola Venturini, Christine M. Gillen, Joshua K. Kirk, Dwight R. Johnson, William L. Taylor, Edward L. Kaplan, Malak Kotb, Victor Nizet, Scott A. Beatson and Mark J. Walker

Faseb Journal, 26 (11): 4675-4684 (2012). IF: 5.712

The past 50 years has witnessed the emergence of new viral and bacterial pathogens with global effect on human health. The hyperinvasive group A Streptococcus (GAS) M1T1 clone, first detected in the mid-1980s in the United States, has since disseminated worldwide and remains a major cause of severe invasive human infections. Although much is understood regarding the capacity of this pathogen to cause disease, much less is known of the precise evolutionary events selecting for its emergence. We used high-throughput technologies to sequence a World Health Organization strain collection of serotype M1 GAS and reconstructed its phylogeny based on the analysis of core genome single-nucleotide polymorphisms.

We demonstrate that acquisition of a 36-kb genome segment from serotype M12 GAS and the bacteriophage-encoded DNase Sda1 led to increased virulence of the M1T1 precursor and occurred relatively early in the molecular evolutionary history of this strain. The more recent acquisition of the phage-encoded superantigen SpeA is likely to have provided selection advantage for the global dissemination of the M1T1 clone. This study provides an exemplar for the evolution and emergence of virulent

clones from microbial populations existing commensally or causing only superficial infection.
Keywords: Streptococcus pyogenes; Virulence factors; Reemergent pathogens; Comparative genomics; Epidemiology.

129. SEED Servers: High-performance Access to the Seed Genomes, Annotations and Metabolic Models

Ramy K. Aziz, Scott Devoid, Terrence Disz, Robert A. Edwards, Christopher S. Henry, Gary J. Olsen, Robert Olson, Ross Overbeek, Bruce Parrello, Gordon D. Pusch[c], Rick L. Stevens, Veronika Vonstein and Fangfang Xia

Plos One, 7 (10): 1-10 (2012). IF: 4.092

The remarkable advance in sequencing technology and the rising interest in medical and environmental microbiology, biotechnology, and synthetic biology resulted in a deluge of published microbial genomes. Yet, genome annotation, comparison, and modeling remain a major bottleneck to the translation of sequence information into biological knowledge, hence computational analysis tools are continuously being developed for rapid genome annotation and interpretation.
Among the earliest, most comprehensive resources for prokaryotic genome analysis, the SEED project, initiated in 2003 as an integration of genomic data and analysis tools, now contains >5,000 complete genomes, a constantly updated set of curated annotations embodied in a large and growing collection of encoded subsystems, a derived set of protein families, and hundreds of genome-scale metabolic models. Until recently, however, maintaining current copies of the SEED code and data at remote locations has been a pressing issue. To allow high-performance remote access to the SEED database, we developed the SEED Servers (http://www.theseed.org/servers): four network-based servers intended to expose the data in the underlying relational database, support basic annotation services, offer programmatic access to the capabilities of the RAST annotation server, and provide access to a growing collection of metabolic models that support flux balance analysis.
The SEED servers offer open access to regularly updated data, the ability to annotate prokaryotic genomes, the ability to create metabolic reconstructions and detailed models of metabolism, and access to hundreds of existing metabolic models. This work offers and supports a framework upon which other groups can build independent research efforts. Large integrations of genomic data represent one of the major intellectual resources driving research in biology, and programmatic access to the SEED data will provide significant utility to a broad collection of potential users.
Keywords: Genomics; Annotation; Sequence analysis; Metabolic models; Metabolic reconstruction; Systems biology; Biocuration; Perl; Java; Computational biology; Web services; Bioinformatics; Application programming interface.

130. A Conserved Udp-Glucose Dehydrogenase Encoded Outside the Hasabc Operon Contributes to Capsule Biogenesis in Group A Streptococcus.

Jason N. Cole, Ramy K. Aziz, Kirsten Kuipers, Anjuli M. Timmer, Victor Nizet and Nina M. van Sorge

Journal of Bacteriology,194 (22): 6154-6161 (2012). IF: 3.825

Group a Streptococcus (GAS) is a human-specific bacterial pathogen responsible for serious morbidity and mortality worldwide. The hyaluronic acid (HA) capsule of GAS is a major virulence factor, contributing to bloodstream survival through resistance to neutrophil and antimicrobial peptide killing and to *in vivo* pathogenicity.
Capsule biosynthesis has been exclusively attributed to the ubiquitous *hasABC* hyaluronan synthase operon, which is highly conserved across GAS serotypes. Previous reports indicate that *hasA*, encoding hyaluronan synthase, and *hasB*, encoding UDP-glucose 6-dehydrogenase, are essential for capsule production in GAS. Here, we report that precise allelic exchange mutagenesis of *hasB* in GAS strain 5448, a representative of the globally disseminated M1T1 serotype, did not abolish HA capsule synthesis.
In silico whole-genome screening identified a putative HasB paralog, designated HasB2, with 45% amino acid identity to HasB at a distant location in the GAS chromosome. *In vitro* enzymatic assays demonstrated that recombinant HasB2 is a functional UDP-glucose 6-dehydrogenase enzyme. Mutagenesis of *hasB2* alone slightly decreased capsule abundance; however, a Δ*hasB* Δ*hasB2* double mutant became completely acapsular. We conclude that HasB is not essential for M1T1 GAS capsule biogenesis due to the presence of a newly identified HasB paralog, HasB2, which most likely resulted from gene duplication. The identification of redundant UDP-glucose 6-dehydrogenases underscores the importance of HA capsule expression for M1T1 GAS pathogenicity and survival in the human host.
Keywords: Streptococcus; Capsule; Infectious diseases; Pathogenicity; Microbial genetics; Bioinformatics.

131. The Important Role of Inflammatory Biomarkers Pre and Post Bare-Metal and Drug-Eluting Stent Implantation

Rami N. Khouzam, Mazen Shaheen, Ramy K. Aziz and Uzoma N. Ibebuogu

Canadian J. of Cardiology, 28 (6): 700-705 (2012). IF: 3.358

In-stent restenosis and stent thrombosis are major complications after percutaneous coronary intervention and coronary stent placement. The inflammatory status of an individual, as reflected by biomarkers and genetic polymorphisms, is a strong predictor of the risk of in-stent restenosis and stent thrombosis. Identifying biomarkers and studying their values are crucial for a more efficient personalized intervention. General inflammatory biomarkers, evidence of inflammation, and the difference between inflammatory biomarkers after bare-metal stent and drug-eluting stent placement are discussed. Clinical implications and the use of antiplatelet and anti-inflammatory medications, as well as future directions in coronary intervention, in reducing the occurrence of these complications, are also discussed.
Keywords: Biomarkers; Stent; Implantation; Drug elution.

132. Gut Pharmacomicrobiomics: the Tip of an Iceberg of Complex Interactions between Drugs and Gut-Associated Microbes

Rama Saad, Mariam R Rizkallah and Ramy K Aziz

Gut Pathogens, 4 (16): 1-13 (2012). IF: 2.109

The influence of resident gut microbes on xenobiotic metabolism has been investigated at different levels throughout the past five

decades. However, with the advance in sequencing and pyrotagging technologies, addressing the influence of microbes on xenobiotics had to evolve from assessing direct metabolic effects on toxins and botanicals by conventional culture-based techniques to elucidating the role of community composition on drugs metabolic profiles through DNA sequence-based phylogeny and metagenomics.

Following the completion of the Human Genome Project, the rapid, substantial growth of the Human Microbiome Project (HMP) opens new horizons for studying how microbiome compositional and functional variations affect drug action, fate, and toxicity (pharmacomicrobiomics), notably in the human gut.

The HMP continues to characterize the microbial communities associated with the human gut, determine whether there is a common gut microbiome profile shared among healthy humans, and investigate the effect of its alterations on health. Here, we offer a glimpse into the known effects of the gut microbiota on xenobiotic metabolism, with emphasis on cases where microbiome variations lead to different therapeutic outcomes. We discuss a few examples representing how the microbiome interacts with human metabolic enzymes in the liver and intestine. In addition, we attempt to envisage a roadmap for the future implications of the HMP on therapeutics and personalized medicine.

Keywords: Human microbiome project; Xenobitoics; Liver enzymes; Metagenome; Microbiota; Metabolomics; Metabonomics; Pharmacokinetics; Pharmacodynamics; Pharmacomicrobiomics.

133. Rethinking Pharmacogenomics in an Ecosystem: Drug-Microbiome Interactions, Pharmacomicrobiomics, and Personalized Medicine for the Human Supraorganism

Ramy K. Aziz

Current Pharmacogenomics and Personalized Medicine,10 (4): 258-261 (2012)

The human microbiota directly and indirectly impacts drug pharmacokinetics and pharmacodynamics, thus affecting treatment outcome and subsequently human health. The Human Microbiome Project (HMP) revived interest in the role of human microbiota in health and disease. Yet, no repository of reported drug-microbe interactions is publicly available, and no attempts have been made to link those interactions to the human microbiome in a structured way. To begin addressing the need for such a crucial and timely resource, we analyzed published experimental data to extract drug-microbe interactions so as to enable the application of emerging HMP knowledge in postgenomics personalized medicine. We hereby report the creation of the PharmacoMicrobiomics Database, which aims to collect, classify, and cross-reference known drug-microbiome interactions and categorize them according to body site and microbial taxonomy. The database is integrated into a web portal that includes a search engine, through which students and scholars can locate drug-microbiome interaction of interest, compiled from and connected to public databases, such as PubMed, PubChem, and Comparative Toxicogenomics. Making these data available is a significant first step towards the prediction of interactions between drugs with similar chemical properties and microbes with similar metabolic abilities. Currently, the PharmacoMicrobiomics Database contains drug-microbiome interactions for more than 60 drugs curated from over 100 research and review articles. Further developments will include the automation of data updating, classification based on drug classes and biochemical pathways, and the participation of the community into data curation and analysis. This work provides a timely and much needed pioneering resource to the global open science community and usefully builds bridges between the rapidly growing fields of pharmacogenomics and human microbiome research.

Keywords: Biocuration; Human microbiome research; Microbiota; Personalized medicine; Pharmacodynamics; Pharmacokinetics; Pharmacomicrobiomics; Relational database.

134. The Pharmaco Microbiomics Portal: A Database for Drug-Microbiome Interactions

R. Rizkallah, Mariam Gamal-Eldin, Soha Saad, Rama, K. and Aziz Ramy

Current Pharmacogenomics and Personalized Medicine, 11(4): 195-203 (2012)

The human microbiota directly and indirectly impacts drug pharmacokinetics and pharmacodynamics, thus affecting treatment outcome and subsequently human health. The Human Microbiome Project (HMP) revived interest in the role of human microbiota in health and disease. Yet, no repository of reported drug-microbe interactions is publicly available, and no attempts have been made to link those interactions to the human microbiome in a structured way. To begin addressing the need for such a crucial and timely resource, we analyzed published experimental data to extract drug-microbe interactions so as to enable the application of emerging HMP knowledge in postgenomics personalized medicine. We hereby report the creation of the PharmacoMicrobiomics Database, which aims to collect, classify, and cross-reference known drug-microbiome interactions and categorize them according to body site and microbial taxonomy. The database is integrated into a web portal that includes a search engine, through which students and scholars can locate drug-microbiome interaction of interest, compiled from and connected to public databases, such as PubMed, PubChem, and Comparative Toxicogenomics.

Making these data available is a significant first step towards the prediction of interactions between drugs with similar chemical properties and microbes with similar metabolic abilities. Currently, the PharmacoMicrobiomics Database contains drug-microbiome interactions for more than 60 drugs curated from over 100 research and review articles. Further developments will include the automation of data updating, classification based on drug classes and biochemical pathways, and the participation of the community into data curation and analysis. This work provides a timely and much needed pioneering resource to the global open science community and usefully builds bridges between the rapidly growing fields of pharmacogenomics and human microbiome research.

Keywords: Biocuration; Human microbiome research; Personalized medicine; Pharmacokinetics; Pharmacodynamics; Pharmacomicrobiomics; Microbiota; Relational database.

135. The Next Revolution in Scholarly Publishing

Ramy Karam Aziz and Peter Binfield

Publishing Scientific Papers in the Developing World, Bibliothca Alexandrina, (2012)

The advanced of sciece largely relies on the timely sharing and propagation of experimental data, result, and analyses between scientists.However, the current situation within the publishing enterprise suffers from several problems, including the overemphasis (for individuals) on high publication volume and citations, the cumbersome process of submitting papers, the obstacles against free access to published articles, and the misuse of existing metrics intended to measure performance. Being aware of these problems, several players have attempted to challenge the status quo by adopting new or revolutionary publication models. Most prominent among these attempts in recent yaers is the emergence and growth of the Open Access movement. Here, we focus on the experience of the Public Library of Science (Plos), now the largest not-for-profit Open Access publisher, and report on some of its innovative projects, which attempt to overcome existing pre- and post-publication problems.

Dept. of Pharmaceutical Chemistry

136. Design, Synthesis, Biological Evaluation, and Comparative Cox1 and Cox2 Docking of *P*-substituted Benzylidenamino Phenyl Esters of Ibuprofenic and Mefenamic Acids

Gehan H. Hegazy and Hamed I. Ali

Bioorganic & Medicinal Chemistry, 20: 1259-1270 (2012)
IF: 2.921

Nonsteroidal anti-inflammatory drugs (NSAIDs) are frequently associated with gastric mucosal and renal adverse reactions, related to inhibition of cyclooxygenase1 (Cox1) in tissues where prostaglandins exert physiological effects. This led us to develop a set of ibuprofenic acid and mefenamic acid esters, namely: 4-((4-substituted benzylidene)amino)phenyl 2-(4-isobutylphenyl) propanoate and 4-((4-substituted benzylidene)amino)phenyl 2-((2,4-dimethylphenyl)amino) benzoate analogs, which were synthesized by condensation of the corresponding acids with Schiff's bases [4-(4-substituted benzylideneamino)phenols] involving dicyclohexyl carbodiimmide (DCC) as mild dehydrating agent.
The main objective is to reduce the GIT toxicity associated with acute and chronic NSAIDs use. Anti-inflammatory, analgesic as well as ulcerogenic activities of the prepared esters were evaluated in vivo and compared with that of ibuprofen as reference standard in all screenings, involving the carrageenan induced paw oedema model and hot plate method. Most of the synthesized esters showed remarkable analgesic and anti-inflammatory activities. Interestingly, all of the compounds were found to be non-ulcerogenic under the tested conditions. This evidence have suggested that modification of the carboxyl function of representative NSAIDs results in retained or enhanced anti-inflammatory and analgesic activities with reduced ulcerogenic potential. Additionally, a comparative AutoDock study into Cox 1 and Cox2 has been done involving both of rigid and flexible docking for potential selectivity of our compounds within different Cox enzymes and to find out the binding orientation of these novel esters into their binding site. Some of the newly prepared aforementioned compounds showed considerable more Cox2 over Cox1 binding affinities by flexible docking better than rigid one.
Keywords: NSAIDs; Molecular docking; Ibuprofen; Mefenamic acid; Cox.

Dept. of Pharmaceutical Organic Chemistry

137. Synthesis and Antitumor Activity of Novel Pyrazolo [3,4-D]Pyrimidines and Related Heterocycles

Manal M. Kandeel, Sameha M. Ali, Eman K. A. Abed ElALL, Mohamed A. Abdelgawad and Phoebe F. Lamie

Der Pharma Chemica, 4 (4): 1704-1715 (2012)

The reaction between 5-amino-4-imino-3-methyl-1-phenyl-1,4-dihydro-pyrazolo[3,4-d]pyrimidine (2a) or (3-methyl-1-phenyl-1H-pyrazolo[3,4-d]pyrimidin-4-yl)- hydrazine (3) and several available reactants afforded newheterocycles with pyrazolo[3,4-d]pyrimidine nucleus. Some of the newly synthesized compounds were screenedagainst MCF-7 cell line, compounds 4b, 5a, 10c and 12c showed the highest activity among the tested compoundswithIC50 between 0.013 and 0.018 μM.
Keywords: Pyrazolo [3,4-d]pyrimidine derivatives; Imino, MCF-7; Z and E Geometrical isomers.

138. Synthesis and Antitumor Activity of Novel Pyrazolo [3,4-D]Pyrimidin-4(5H)-One Derivatives

Manal M. Kandeel, Sameha M. Ali, Eman K. A. Abed ElALL, Mohamed A. Abdel gawad and Phoebe F. Lamie

Journal of Chemical and Pharmaceutical Research, (2012)

Starting from pyrazolo[3,4-d]pyrimidine ethyl ester 4 and its corresponding acid hydrazide5, several newcompounds were synthesized such as schiff bases 6a-e, acetyl azide derivative 7, phthalimido derivatives 8, compounds containing oxadiazole ring 9,10a-c, triazole ring system 11, 14,15, thiadiazole moiety 13 and phenylthiosemicarbazide part 12. Some of the synthesized compounds were screened for their antitumor activity againsthuman breast adenocarcinoma cell line (MCF-7) using doxorubicin as a positive control. Compounds 6d, 10b, 12were found to exhibit good cytotoxic activity with IC50 equal to (4.6, 4.6, 4.8 μg/mL), respectively.
Keywords: Pyrazolo [3,4-d]pyrimidine-4(5H)-ones; Hydrazide; Schiff bases; Antitumor activity.

The National Cancer Institute

Dept. of Medical Oncology

139. Associations Differ By Sex for Catechol-*O*-Methyltransferase Genotypes and Bladder Cancer Risk in South Egypt

Beverly J. Wolpert, Sania Amr, Doa'a A. Saleh, Sameera Ezzat, Iman Gouda, Iman Loay, Tamer Hifnawy, Mohamed Abdel-Hamid, Nabiel N. Mikhail, Min Zhan, Yun-Ling Zheng, Katherine Squibb, Mohamed A. Abdel-Aziz, Mohamed S. Zaghloul, Hussein Khaled and Christopher A. Loffredo

Urologic Oncology: Seminars and Original Investigations, 30 (6): 841-847 (2012). IF: 3.216

Objectives: to examine associations between urinary bladder cancer risk and polymorphisms of the gene encoding the catechol estrogen-metabolizing enzyme, catechol-O-methyltransferase (COMT), among Egyptian women and men.