

Faculty of Medicine, Cairo University
International Publications
(Year 2007)

Edited by:
Professor Dr. Lamis Ragab
Professor Dr. Taymour Mostafa

1. *Acta Myol.* 2007 Jul; 26(1):14-21.

Markers of oxidative stress and aging in Duchene muscular dystrophy patients and the possible ameliorating effect of He: Ne laser.

Abdel SE, Abdel-Meguid I, Korraa S.

Department of Pediatrics, Genetic Unit, Faculty of Medicine, Cairo University

Abstract

Replicative aging and oxidative stress are two plausible theories explaining the etiology of muscular dystrophy. The first theory indicates that replicative aging of myogenic cells (satellite cells), owing to enhanced myofiber turnover, is a plausible explanation of the progression of Duchenne muscular dystrophy (DMD). The oxidative stress theory indicates that failure of muscle regeneration to keep up with the ongoing apoptosis and necrosis following oxidative stress, that normally associates muscular exercise, leads to muscle atrophy in DMD. To test for these two theories, markers of replicative aging and oxidative stress were assessed in the blood of 30 DMD patients vs. 20 normal healthy age matching controls. Markers of replicative aging showed significantly lower telomerase activity, significantly increased expression of receptors for advanced glycation end products (RAGEs) mRNA and Bax mRNA (an apoptotic gene) in DMD compared to controls. There was a significant increase in markers of oxidative stress among DMD patients compared to controls, measured in terms of increased apoptotic percentage in circulating mononuclear cells, increased lipid peroxidation measured in terms of plasma malondialdehyde (MDA) and increased protein carbonyls. Levels of plasma nitric oxide (NO), which neutralizes oxygen radicals, and expression of inducible nitric oxide synthase (iNOS) mRNA in neutrophils was significantly lower among DMD compared to controls. Biostimulation of WBC by helium neon (He:Ne) laser irradiation induced a significant increase in the expression of iNOS mRNA and plasma NO levels, but still at a lower level compared to controls. He:Ne laser irradiation induced a marked decrease in markers of oxidative stress among DMD patients compared to their level before irradiation, measured in terms of decreased plasma protein carbonyls, decreased plasma MDA, and decreased apoptosis percentage. **CONCLUSION:** This study points to that oxidative stress is the prime cause for muscle degeneration in DMD and points out to the possible ameliorative effect of He:Ne laser on this.

The effect of vaginal distension on the female urinary bladder and urethral sphincters

Shafik A, Sibai OE, Shafik AA, Shafik IA.

Department of Surgery and Experimental Research, Faculty of Medicine, Cairo University, Cairo, Egypt.

Abstract

AIMS: A mention of effect of vaginal distension, as induced by penile thrusting at coitus, on urinary bladder (UB) and urethral sphincters could not be traced in literature. We investigated the hypothesis that, upon vaginal distension, UB undergoes inhibited activity, while external and internal urethral sphincters (IUS) exhibit increased activity in order to guard against urine leakage during coitus. **METHODS:** Response of UB and external and IUS to vaginal balloon distension was recorded in 28 healthy women (age 35.6+/-3.3 years). A vaginal condom was inflated with air in increments of 50 up to 200 ml, and vesical pressure as well as electromyographic (EMG) activity of external and IUS were registered. The test was repeated after separate anaesthetisation of vagina, UB and external and IUS. **RESULTS:** On vaginal distension, vesical pressure was reduced in the ratio of expansion of vaginal volume up to a certain capacity, beyond which vesical pressure ceased to decline when distending volume was augmented. Similarly, IUS EMG activity increased progressively on incrementally added vaginal distension up to 150-ml distension, beyond which any further vaginal distension did not produce an additional increase of EMG activity; the external urethral sphincter (EUS) EMG activity showed no response. Vaginal distension, while the vagina, UB and external and IUS had been separately anaesthetised, produced no significant change. **CONCLUSION:** Vaginal balloon distension seems to effect vesical wall relaxation and increase IUS tone. This appears to provide a mechanism that prevents urine leak during coitus. Vesical and IUS response to vaginal distension are suggested to be mediated through a reflex we term 'vagino-vesicosphincteric reflex', which seems to be evoked by vaginal distension during penile thrusting. The reflex may prove of diagnostic significance in sexual disorders.

3. **Acta Orthop Belg.** 2007 Dec; 73 (6):741-6.

Two methods of atlantoaxial stabilisation for atlantoaxial instability

El Masry MA, El Assuity WI, Sadek FZ, Salah H.
Cairo University Teaching Hospitals, Cairo, Egypt

Abstract

Thirty-seven patients, 19 males and 18 females, with a mean age of 37.6 years (range 9-62), underwent atlantoaxial fusion for atlantoaxial instability associated with pseudarthrosis of the odontoid, fixed rotary subluxation, rheumatoid arthritis, and mongolism. Two operative techniques were used: transarticular C1-C2 screws and posterior bone grafts according to Magerl, but without posterior wiring, in 24 patients (group 1), and C1 lateral mass screws/C2 pedicle screws, plates and posterior bone grafts, according to Goel, in 13 patients (group 2). The mean follow-up period was 27.6 months. In both groups 92% of the patients were free of neck pain. In group 1, 4 out of 9 patients with neurological involvement improved one Frankel grade and in group 2, 3 out of 5. The fusion rates were 96% and 100%, respectively; they were superior to the rates mainly seen after a Gallie fusion: 67 to 86%. One vertebral artery injury without sequelae occurred in group 1, and one wound infection, that healed with debridement, in group 2. In conclusion, the results were excellent in both groups, but slightly better in group 2.

4. **Acta Orthop Belg.** 2007 Jun;73(3):354-9.

Reconstruction of distal tibial defects following resection of malignant tumours by pedicled vascularised fibular grafts.

Ebeid W, Amin S, Abdelmegid A, Refaat Y, Ghoneimy A.

Orthopaedic Department, Faculty of Medicine, Cairo University, Cairo, Egypt.

Abstract

The aim of this study was to evaluate the oncologic and functional outcome after wide resection of malignant tumours of the distal tibia and reconstruction of the defect by ipsilateral pedicled vascularised fibular graft and ankle arthrodesis. Thirteen patients (9 males and 4 females) with primary malignant tumours of the distal tibia were treated by wide resection. The mean age of the patients at the time of surgery was 15 years. The fibula was mobilised to fill the defect, pedicled on the peroneal vessels. The average size of the defects reconstructed was 10 cms. Patients were evaluated functionally using the Musculoskeletal Tumor Society evaluation system. The mean duration of follow-up was 27 months. Chest metastases developed in 4 patients and local recurrence in one. The mean functional score was 80% at the time of last follow-up. The average time to union of the graft both proximally and distally was 6 months. Complications were minimal and did not affect the functional outcome. Reconstruction of distal tibial defects with an ipsilateral pedicled vascularised fibular graft is a technically easy reconstructive option which offers a predictable long standing functional outcome.

**Extended supracricoid laryngectomy with excision of both arytenoids:
the modified reconstructive laryngectomy**

Rifai M.

Head and Neck Surgery, Kasr El Aini Hospital, Medical School, Cairo University, Cairo, Egypt.

Abstract

CONCLUSION: Modified reconstructive laryngectomy (MRL) with excision of both arytenoid cartilages will expand the range of indications for conservative surgery in the management of cancer of the larynx. **OBJECTIVE:** The present work describes a modification of the standard reconstructive laryngectomy procedure, in order to address problems related to aspiration, and to improve functional results. **PATIENTS AND METHODS:** The study was conducted in Cairo University Hospital. MRL was performed on 14 patients who were scheduled for total laryngectomy. This technique allows for preservation of the superior laryngeal nerves, by fashioning folds of the pharyngeal mucosa to replace the arytenoids. This is followed by reconstruction of the airway through elevation and attachment of the remaining tracheal rings and/or cricoid to the hyoid bone and epiglottis. **RESULTS:** MRL was successful in all of the 14 patients included in this preliminary study. All of the patients maintained comprehensible speech, and only one required a speaking type of tracheotomy tube.

Intrahepatic expression of interferon alpha & interferon alpha receptor m-RNA can be used as predictors to interferon response in HCV and HCC patients

Salama H, Atta H, Heba Abdelrazik H

Departments of Tropical Medicine, Medical Biochemistry and Clinical Pathology; Faculty of Medicine, Cairo University.

Abstract

Chronic hepatitis C Virus (HCV) is the leading cause of liver cirrhosis worldwide and in Egypt. Patients with cirrhosis secondary to chronic HCV infection are at increased risk for developing Hepatocellular carcinoma (HCC) in which Interferon therapy is the only effective anti-viral therapy. The current study aimed to investigate the expression IFN- α and IFN- α Receptor genes in liver biopsies from patients with HCV and HCC. Correlation of their expression with the clinical, histopathological progress of the disease and the effectiveness of IFN therapy in HCV patients after a period of 6 months follow-up was done. Expression of IFN- α and IFN α -Rc m-RNA was investigated by RT-PCR using liver biopsy specimens from 30 HCV patients including 7 patients complicated with HCC. Liver biopsies were also subjected to formalin fixation for complete histopathological examination. Ninety seven percent of patients expressed Interferon Alpha m-RNA while 30% only expressed Interferon Alpha Receptor m-RNA. Responders and non-responders to Interferon therapy were divided according to their HCV RNA after six-months follow up period of interferon therapy. Responders showed significantly lower mean age, better histopathological states and higher incidence of expression of IFN Alpha Receptor mRNA. Regardless of the response to interferon, histological activity index scores and the degree of fibrosis showed a significant inverse correlation to the presence of IFN α -R m-RNA. IFN α -R mRNA expression decreases with the histological progress of the disease, suggesting that lower expression of the IFN α -Rc may be partially responsible for the unfavorable response to interferon in these patients.

Anatomy of the urethral supporting ligaments defined by dissection, histology, and MRI of female cadavers and MRI of healthy nulliparous women

El-Sayed RF, Morsy MM, El-Mashed SM, Abdel-Azim MS.

Department of Radiology, Faculty of Medicine, Cairo University, Cairo, Egypt.

Abstract

OBJECTIVE: There has been no uniformity of opinion concerning the structures supporting the female urethra. Therefore, the aims of this prospective study were to define precisely the female urethral support structures at cadaveric anatomic dissection and histologic examination and to determine which of these structures can be detected on MRI of cadaveric specimens and of healthy volunteers. **SUBJECTS AND METHODS:** Dissection of seven formalin-preserved cadavers (age at death, 25-50 years; no parity history available) was performed by a professor of anatomy to explore the anatomy of the urethral supporting ligaments and was followed by MRI of the cadaveric specimens with ligamentous markers in place and then by histologic analysis of the dissected ligaments. MRI of 17 healthy nulliparous women (age range, 20-35 years; mean age, 25.5 years) was then performed using T2-weighted, dual turbo spin-echo, balanced fast-field echo, and STIR sequences. A standardized grid system that allowed us to record structural observations on sequentially numbered axial MR images was used by a radiologist who then applied a 4-point grading scale to assess ligament visibility. Three authors--one radiologist, one anatomist, and one urologist--then compared the appearance of each ligament seen in a cadaveric specimen with its appearance on MR images of the same cadaver and on MR images of volunteers. **RESULTS:** At cadaveric dissection we identified ventral and dorsal urethral ligaments. The ventral urethral ligaments included the pubourethral ligaments, which were found to consist of three separate components coursing anteroposterior from the bladder neck to the pubic bone; the periurethral ligament; and the paraurethral ligaments. Dorsal to the urethra, a slinglike ligament, which we believe should be named the "suburethral ligament," was identified. This ligament had a distinct plane of cleavage from the anterior vaginal wall. The MRI findings in the volunteers correlated with the MRI and gross anatomic findings in the cadavers. The proximal pubourethral, periurethral, paraurethral, and suburethral ligaments had visibility scores of 3 (moderately visible) or 4 (easily visible) on MRI in 47%, 65%, 47%, and 53% of volunteers, respectively. **CONCLUSION:** Our results present evidence that may help resolve previous controversies regarding the MR appearance of the ventral urethral ligaments and that better define the course of the ligament dorsal to the urethra, the suburethral ligament. We hope that this detailed anatomic information about the structures involved in continence may lead eventually to improvements in the treatments for women with stress urinary incontinence.

Effect of urethral stimulation on vesical contractile activity.

Shafik A, Shafik IA, El Sibai O, Shafik AA.

Department of Surgery and Experimental Research, Faculty of Medicine, Cairo University, Cairo, Egypt

Abstract

BACKGROUND: We investigated the hypothesis that urethral stimulation effects vesical contraction. **METHODS:** Vesical pressure response to urethral balloon distension with normal saline in increments of 1 mL was recorded in 26 healthy volunteers (17 men, 9 women; mean age, 36.9 +/- 9.7 SD years) before and after individual anesthetization of the urinary bladder and urethra. Urethral distension was effected by a 6F balloon-ended catheter introduced per urethra. Vesical pressure was measured by means of a microtip catheter. **RESULTS:** Vesical pressure recorded gradual increase on increase of urethral balloon distension. Bladder response was maintained as long as urethral distension was continuous. The response showed no significant difference when we distended different parts of the male or female urethrae. Urethral distension after individual vesical and urethral anesthetization effected no change in the vesical pressure. **CONCLUSIONS:** Urethral distension produced a vesical pressure increase that presumably denotes vesical contraction. Vesical contraction on urethral stimulation by distension is suggested to be mediated through a "urethrovesical stimulating reflex" that seems to facilitate vesical contraction. Provided further studies to be performed in this respect, the reflex may prove to be of diagnostic significance in micturition disorders.

Stress, urge, and mixed types of partial fecal incontinence: pathogenesis, clinical presentation, and treatment.

Shafik A, El Sibai O, Shafik IA, Shafik AA.

Department of Surgery and Experimental Research, Faculty of Medicine, Cairo University, Cairo, Egypt.

Abstract

The authors investigated the hypothesis that partial fecal incontinence (PFI) had variable manifestations that can be categorized as different types of PFI with different pathogeneses and treatment. Anal and rectal pressures as well as external and internal anal sphincter electromyographic activity were recorded in 163 patients with PFI and in 25 healthy volunteers. Patients were treated with biofeedback or surgically. Three types of PFI were encountered: stress fecal incontinence (SFI; 55 patients), urge fecal incontinence (UFI; 72 patients), and mixed fecal incontinence (MFI; 36 patients). Anal pressure decreased in three groups in which MFI had the lowest pressure. A significant reduction in external anal sphincter electromyographic activity occurred in SFI, in internal anal sphincter electromyographic activity in UFI, and of both sphincters in MFI. Biofeedback cured 36 of 55 patients and postanal repair cured 10 of 19 patients with SFI. Forty-eight of 72 patients with UFI responded to biofeedback and 16 of 24 responded to internal anal sphincter repair. Biofeedback failed in MFI patients. Twenty-four of 27 patients who consented to operative correction of the sphincteric defect were cured. Three types of PFI could be identified: SFI, UFI, and MFI. Each type has its own etiology and symptoms, and requires individual treatment. Biofeedback succeeded in treating the majority of SFI and UFI patients. Surgical correction of the anal sphincter was performed after biofeedback failure.

Oral phosphodiesterase-5 inhibitors: effect of heme oxygenase inhibition on cGMP signalling in rat cavernous tissue.

Abdel Aziz MT, Mostafa T, Atta H, Rashed L, Marzouk SA, Obaia EM, Sabry D, Hassouna AA, El-Shehaby AM, Abdel Aziz AT.

Medical Biochemistry, Molecular Biology Unit and Andrology & Sexology Departments, Faculty of Medicine, Cairo University, Cairo, Egypt.

Abstract

This work postulated that heme oxygenase (HO) is partly responsible for controlling phosphodiesterase-5 inhibitor actions by modulating cyclic guanosine monophosphate (cGMP) cavernous tissue levels. Five hundred and four male Sprague-Dawley rats, divided into five groups, were investigated. Group 1 (n=72) included controls, group 2 (n=72) received sildenafil citrate (Viagra) orally, group 3 (n=72) received vardenafil hydrochloride (Levitra), group 4 (n=72) received tadalafil (Cialis). Group 5 (n=216), subdivided into three subgroups (A, B and C, 72 each), received the same dose of each drug with the HO inhibitor, Zn protoporphyrin. Eight rats from each group/subgroup were killed at 0.5, 1, 2, 3, 4, 6, 18, 24 and 36 h when cGMP levels in the cavernous tissues were estimated. Cavernous tissue cGMP levels increased significantly in sildenafil, vardenafil and tadalafil-treated rats compared to the controls with significant decreases after HO inhibition. It is concluded that the effects of these PDE-5 inhibitors in rat cavernous tissue are partly mediated through HO activity via the cGMP signalling pathway.

Seminal mast cells in infertile asthenozoospermic males.

El-Karakasy A, Mostafa T, Shaeer OK, Bahgat DR, Samir N.

Department of Andrology and Sexology, Faculty of Medicine, Cairo University, Cairo, Egypt.

Abstract

This work aimed to assess the possible association between the presence of seminal mast cells and asthenozoospermia. One hundred and seventy-six male subjects were investigated: group (Gr)1 (n=46) normozoospermic fertile controls, Gr2 (n=62) idiopathic asthenozoospermia, Gr3 (n=32) asthenozoospermia with scrotal varicocele and Gr4 (n=36) asthenozoospermia with leucocytospermia. Four smear slides were prepared for each semen sample to be stained with toluidine blue-pyronin to detect mast cells. A significant increase was shown in mast cell-positive samples among varicocele-associated and idiopathic asthenozoospermic patients in comparison with fertile controls. Seminal mast cells were also detected at higher frequency among smokers and in age group over 40 years. It is concluded that mast cells and their products may play a pivotal role in the pathogenesis of asthenozoospermia, possibly proposing a new goal for medical treatment of infertile males to pursue. In addition, this concept may in a way detain smoking as a cause of male infertility considering the clear abundance of mast cells in semen samples of smokers.

Tadalafil as an in vitro sperm motility stimulant.

Mostafa T.

Department of Andrology & Sexology, Faculty of Medicine, University of Cairo, Cairo, Egypt.

Abstract

Tadalafil (Cialis) is a known oral selective phosphodiesterase-5 inhibitor used widely in the management of erectile dysfunction. To assess its ability on human sperm motility in vitro, 70 asthenozoospermic semen specimens delivered by masturbation were investigated. Semen samples were divided equally into four tubes, one as a control and to the others tadalafil dissolved solution was added in vitro in three different concentrations (4.0, 1.0, 0.5 mg ml⁻¹) respectively). The tubes were incubated and were followed up for sperm motility per cent changes for 0.5, 1, 2, 3 h. It was found that the concentration used played an important role in the degree of sperm enhancement. Specimens treated with 4 mg ml⁻¹ tadalafil solution demonstrated a significant decrease in sperm motility compared with the controls. Specimens treated with 1.0 mg ml⁻¹ solution demonstrated significant increase in sperm progressive forward motility. Specimens treated with 0.5 mg ml⁻¹ solution demonstrated significant increases in sperm motility but lower than that of 1 mg ml⁻¹ concentration. It is concluded that in vitro use of tadalafil solution in special concentration has a significant stimulatory effect on asthenozoospermic sperm motility.

alpha-1,4-glucosidase activity in infertile oligoasthenozoospermic men with and without varicocele.

Roaiah MM, Mostafa T, Salem D, El-Nashar AR,
MS

Kamel II, El-Kashlan

Department of Andrology & Sexology, Faculty of Medicine, Cairo University,
Cairo, Egypt.

Abstract

This work aimed to assess seminal alpha-1,4-glucosidase activity in infertile oligoasthenozoospermic men associated with and without scrotal varicocele. Eighty men were investigated. They were divided into three groups: group 1 (n = 20), fertile normozoospermic men; group 2 (n = 30), oligoasthenozoospermia with varicocele; and group 3 (n = 30), oligoasthenozoospermia without varicocele. The patients underwent medical history, clinical examination, conventional semen analysis and estimation of seminal plasma alpha-1,4-glucosidase activity by double-beam spectrophotometer method and serum testosterone by radioimmunoassay method. There was a significant decrease in the mean seminal alpha-1,4-glucosidase activity levels in infertile men versus controls (mean +/- SD; 7.66 +/- 0.433, 2.088 +/- 0.565, 5.384 +/- 0.85 mU ml(-1) respectively). Mean serum testosterone levels demonstrated nonsignificant differences between studied groups. Seminal alpha-1,4-glucosidase activity levels demonstrated significant correlation with sperm count, sperm motility percentage and serum testosterone in oligoasthenozoospermia with varicocele group and demonstrated nonsignificant correlation in other groups. It is concluded that varicocele-induced hypoxia is the adverse effect that causes both oligoasthenozoospermia and decreased seminal alpha-1,4-glucosidase levels.

Serum leptin correlates in infertile oligozoospermic males

Hanafy S, Halawa FA, Mostafa T, Mikhael NW, Khalil KT.

Dermatology & Andrology Department, Faculty of Medicine, Benha University, Benha, Egypt.
Medical Biochemistry and Andrology & Sexology Departments, Faculty of Medicine, Cairo University, Cairo, Egypt.

Abstract

Leptin is an adipocyte-secreted protein that participates in the regulation of energy homeostasis. Eighty men were investigated; fertile normozoospermia as a control (n = 30) and infertile oligozoospermia (n = 50). The patients underwent estimation of body weight (kg), height (cm), calculation of body mass index (BMI), semen analysis, serum leptin and testosterone hormones. Mean body weight was significantly higher in infertile oligozoospermia compared with controls. Mean height, BMI and serum testosterone levels showed nonsignificant differences between the two groups. Infertile oligozoospermia had significantly higher mean serum leptin level than controls (mean \pm SD; 6.88 \pm 8.65, 16.3 \pm 13.98 ng ml⁻¹), P < 0.01). Serum leptin demonstrated significant positive correlation with age, body weight, BMI and significant inverse correlation with serum testosterone. It had nonsignificant correlation with the height and sperm concentration. These results are suggestive of a link between the adipocyte derived hormone, leptin and male reproduction.

Mast cells in testicular biopsies of azoospermic men

Roaiiah MM, Khatab H, Mostafa T.

Departments of Andrology & Sexology and Pathology, Faculty of Medicine, Cairo University, Cairo, Egypt.

Abstract

This work aimed at identifying mast cells in testicular biopsies from 10 normal fertile controls, 20 patients with obstructive azoospermia and 70 patients with nonobstructive azoospermia. The biopsies were stained with haematoxylin and eosin stain for tubular-modified Johnson score and with toluidine blue stain for mast cells. Two populations of mast cells, peritubular and interstitial, were demonstrated in all sections with varied counts. Testicular sections with Sertoli cell only and spermatogenic arrest patterns demonstrated a significant increase in both peritubular and interstitial mast cells compared with other groups, whereas obstructive azoospermia demonstrated a nonsignificant increase compared with the controls. Mast cell count was significantly correlated negatively with Johnson score for both peritubular ($P = 0.001$) and interstitial ($P = 0.001$) populations. Whether these results could be a cause or an effect, a special role might be assigned to mast cells in the pathogenesis of disturbed spermatogenesis.

16. **Ann Hematol.** 2007 Jan;86(1):31-4.

Effect of L-carnitine on the physical fitness of thalassemic patients.

El-Beshlawy A, El Accaoui R, Abd El-Sattar M, Gamal El-Deen MH, Youssry I, Shaheen N, Hamdy M, El-Ghamrawy M, Taher A.

Department of Pediatrics, New Children Hospital, Cairo University,
Cairo, Egypt.

Abstract

Poor physical fitness is a common problem among thalassemic patients. L-Carnitine plays an essential role in fatty acid beta-oxidation, a process especially important in the organs that preferentially use fatty acid as a source of energy such as the myocardium and the skeletal muscles. The main objective of this study is to assess the effect of the administration of oral L-carnitine on exercise tolerance and physical fitness in patients with thalassemia major. Thirty patients followed up at the New Cairo University Children Hospital were included in this study. Clinical, laboratory, and cardiopulmonary exercise testing were performed before and after 6 months of oral L-carnitine therapy (50 mg/kg/day). The oxygen consumption, cardiac output, and oxygen pulse at maximal exercise significantly increased after L-carnitine therapy ($p < 0.001$, $p = 0.002$ and $p < 0.001$, respectively). However, there was no significant change in minute ventilation and ventilatory equivalent of carbon dioxide ($p = 0.07$ and $p = 0.06$, respectively). A weak but positive correlation between the age of the patients and the degree of improvement in exercise parameters was noted. There was also significant increase in the blood transfusion intervals after L-carnitine administration ($p = 0.008$). However, there was no significant change in hemoglobin concentration ($p = 0.4$). L-Carnitine seems to be a safe and effective adjunctive therapeutic approach in thalassemic patients. It improves their cardiac performance and physical fitness. The younger the patients are, the higher is the degree of improvement in their exercise parameters.

17. **APLAR J Rheumatology** 2007; 10: 130–6.

High-resolution CT pulmonary findings in idiopathic ankylosing spondylitis: correlations with clinical assessment, plain chest X-ray and pulmonary function tests.

Zaki S, El-Hadidi K, Sami H , Emad Y.

Rheumatology & Rehabilitation Department, Faculty of Medicine, Cairo University, Cairo, Egypt.

Assessment of seminal plasma laminin in fertile and infertile men.

El-Dakhly MR, Tawadrous GA, Mostafa T, Roaia MM, El-Nashar AR, Shedeed SA, Kamel II, Aziz AA, El-Mohtaseb Y.

Departments od Andrology & Sexology and Medical Biochemistry, Faculty of Medicine, Cairo University, Cairo, Egypt.

Abstract

AIM: To assess laminin levels in the seminal plasma of infertile and fertile men, and to analyze the correlation of laminin levels with sperm count, age, sperm motility and semen volume. **METHODS:** One hundred and twenty-five recruited men were equally divided into five groups according to their sperm concentration and clinical examination: fertile normozoospermia, oligoasthenozoospermia, non-obstructive azoospermia (NOA), obstructive azoospermia (OA) and congenital bilateral absent vas deferens (CBAVD). The patients' medical history was investigated and patients underwent clinical examination, conventional semen analysis and estimation of seminal plasma laminin by radioimmunoassay. **RESULTS:** Seminal plasma laminin levels of successive groups were: 2.82 +/- 0.62, 2.49 +/- 0.44, 1.77 +/- 0.56, 1.72 +/- 0.76, 1.35 +/- 0.63 U/mL, respectively. The fertile normozoospermic group showed the highest concentration compared to all infertile groups with significant differences compared to azoospermic groups ($P < 0.05$). Testicular contribution was estimated to be approximately one-third of the seminal laminin. Seminal plasma laminin demonstrated significant correlation with sperm concentration ($r = 0.460$, $P < 0.001$) and nonsignificant correlation with age ($r = 0.021$, $P = 0.940$), sperm motility percentage ($r = 0.142$, $P = 0.615$) and semen volume ($r = 0.035$, $P = 0.087$). **CONCLUSION:** Seminal plasma laminin is derived mostly from prostatic and testicular portions and minimally from the seminal vesicle and vas deferens. Estimating seminal laminin alone is not conclusive in diagnosing different cases of male infertility.

Seminal plasma anti-Müllerian hormone level correlates with semen parameters but does not predict success of testicular sperm extraction (TESE).

Mostafa T, Amer MK, Abdel-Malak G, Nsser TA, Zohdy W, Ashour S, El-Gayar D, Awad HH.

Andrology & Sexology Department, Faculty of Medicine, Cairo University, Cairo, Egypt.

Abstract

AIM: To assess seminal plasma anti-Müllerian hormone (AMH) level relationships in fertile and infertile males. **METHODS:** Eighty-four male cases were studied and divided into four groups: fertile normozoospermia (n = 16), oligoasthenoterato-zoospermia (n = 15), obstructive azoospermia (OA) (n = 13) and non-obstructive azoospermia (NOA) (n = 40). Conventional semen analysis was done for all cases. Testicular biopsy was done with histopathology and fresh tissue examination for testicular sperm extraction (TESE) in NOA cases. NOA group was subdivided according to TESE results into unsuccessful TESE (n = 19) and successful TESE (n = 21). Seminal plasma AMH was estimated by enzyme linked immunosorbent assay (ELISA) and serum follicular stimulating hormone (FSH) was estimated in NOA cases only by radioimmunoassay (RIA). **RESULTS:** Mean seminal AMH was significantly higher in fertile group than in oligoasthenoterato-zoospermia with significance (41.5 +/- 10.9 pmol/L vs. 30.5 +/- 10.3 pmol/L, P < 0.05). Seminal AMH was not detected in any OA patients. Seminal AMH was correlated positively with testicular volume (r = 0.329, P = 0.005), sperm count (r = 0.483, P = 0.007), sperm motility percent (r = 0.419, P = 0.021) and negatively with sperm abnormal forms percent (r = -0.413, P = 0.023). Nonsignificant correlation was evident with age (r = -0.155, P = 0.414) and plasma FSH (r = -0.014, P = 0.943). In NOA cases, seminal AMH was detectable in 23/40 cases, 14 of them were successful TESE (57.5%) and was undetectable in 17/40 cases, 10 of them were unsuccessful TESE (58.2%). **CONCLUSION:** Seminal plasma AMH is an absolute testicular marker being absent in all OA cases. However, seminal AMH has a poor predictability for successful testicular sperm retrieval in NOA cases.

Assessment of heme oxygenase-1 (HO-1) activity in the cavernous tissues of sildenafil citrate-treated rats.

Abdel Aziz MT, Al-Asmar MF, Mostafa T, Atta H, Rashed L, Sabry D, Ashour S, Aziz AT.
Molecular Biology Unit, Medical Biochemistry and Andrology & Sexology Departments, Faculty of Medicine, Cairo University, Cairo, Egypt.

Abstract

AIM: To assess heme oxygenase-1 (HO-1) activity in the cavernous tissue of sildenafil citrate-treated rats. **METHODS:** One hundred and ninety-two Sprague-Dawley male rats, divided into four equal groups, were investigated. Group 1, the control group, received regular animal chow; group 2 received sildenafil citrate by intragastric tube; group 3 received sildenafil and HO inhibitor (zinc protoporphyrin, ZnPP); and group 4 received sildenafil and nitric oxide synthase (NOS) inhibitor L-nitroarginine methyl ester (L-NAME). Twelve rats from each group were killed after 0.5 h, 1 h, 2 h and 3 h of drug administration. Then HO-1 activity, cGMP levels and NOS enzymatic activity in the cavernous tissues were estimated. **RESULTS:** In cavernous tissue, HO-1 activity, NOS enzymatic activity and cGMP concentration increased significantly in sildenafil-treated rats compared to other groups throughout the experiment. Rats receiving either HO or NOS inhibitors showed a significant decrease in these parameters. HO-1 cavernous tissue activity and NOS enzymatic activity demonstrated a positive significant correlation with cGMP levels ($r = 0.646$, $r = 0.612$ respectively; $P < 0.001$). **CONCLUSION:** The actions of PDE5 inhibitor sildenafil citrate in the cavernous tissue are partly mediated through the interdependent relationship between both HO-1 and NOS activities.

Semen parameters in men with spinal cord injury: changes and aetiology

Momen MN, Fahmy I, Amer M, Arafa M, Zohdy W, Naser TA.
Andrology & Sexology Department, Cairo University, Cairo, Egypt.

Abstract

AIM: To assess the changes in semen parameters in men with spinal cord injury (SCI) and the possible causes of these changes. **METHODS:** The study included 45 subjects with SCI. Semen retrieval was done by masturbation (2), vigorous prostatic massage (n = 13), penile vibratory stimulation (n = 13) or electroejaculation (n = 17). **RESULTS:** The semen of men with SCI showed normal volume (2.3 +/- 1.9 mL) and sperm count (85.0 X 10(6) +/- 83.8 X 10(6)/mL) with decreased motility (11.6% +/- 0.1%), vitality (18.5% +/- 5.2%) and normal forms (17.5% +/- 3.4%), and pus cells has been increased (6.0 X 10(6) +/- 8.2 X 10(6)/mL). Total (13.4 +/- 9.9 vs. 7.1 +/- 6.8) and progressive (4.4 +/- 3.9 vs. 2.2 +/- 2.1) motility were significantly higher in subjects with lower scrotal temperatures. There was no statistical significant difference between electroejaculation and penile vibratory stimulation groups as regards any of the semen parameters. Subjects'age, infrequent ejaculation, injury duration and hormonal profile showed no significant effect on semen parameters. **CONCLUSION:** The defining characteristics of the seminogram in men with SCI are normal volume and count with decreased sperm motility, vitality and normal forms, and the increased number of pus cells. The most acceptable cause of the deterioration of semen is elevated scrotal temperature.

Impact of Triton X-100 on alpha 2-antiplasmin (SERPINF2) activity in solvent/detergent-treated plasma.

Burnouf T, Goubran HA, Radosevich M, Sayed MA, Gorgy G, El-Ekiaby M
Research Department, Human Plasma Product Services, Lille, France.
Clinical Haematology Unit, Department of Internal Medicine, Faculty of Medicine, Cairo
University, Cairo, Egypt.

Abstract

Large-pool solvent/detergent (SD) plasma for transfusion exhibits reduced alpha 2-antiplasmin (alpha2-AP; SERPINF2) functional activity. The reason for the loss of alpha2-AP has not been described and could be due to the SD incubation itself and/or to the processing steps implemented to remove the solvent and the detergent. We have studied alpha2-AP activity during six down-scale preparations of plasma virally-inactivated by 1% (v/v) TnBP combined with two different non-ionic detergents, either 1% Triton X-100 or 1% Triton X-45, at 31 degrees C for 4h. The SD-treated plasmas were then extracted with 7.5% (v/v) soybean oil, centrifuged at 3800 x g for 30 min, and subjected to hydrophobic interaction chromatography (HIC) to remove the SD agents. Control runs without TnBP and Triton were performed to evidence possible impacts of each process step on alpha2-AP activity. TnBP, Triton X-100, and Triton X-45 were measured at all stages of the processes to evaluate potential interferences with the alpha2-AP assay. Alpha 2-AP activity was about 10% that of starting plasma after 1% TnBP-1% Triton X-100 incubation and about 50% after oil extractions, centrifugation, and HIC. By contrast about 73% of the antiplasmin activity was found after the incubation with 1% TnBP and 1% Triton X-45, 88% after removal of the SD agents by oil extractions, 90% after centrifugation and 92% after HIC. The control runs performed without SD agents showed that the process steps did not affect the alpha2-AP activity. In conclusion, the agent altering alpha2-AP activity in SD-plasma is Triton X-100. The choice of detergents for the SD viral inactivation of therapeutic plasma fractions used in patients at risk of fibrinolysis should consider the impact on alpha2-AP activity.

Study of genetic polymorphism of xenobiotic enzymes in acute leukemia.

Eyada TK, El Ghonemy EG, El Ghoroury EA, El Bassyouni SO, El Masry MK.
Department of Clinical Pathology, Faculty of Medicine, Cairo University, Cairo, Egypt

Abstract

The work studied possible association between genetic polymorphisms of CYP2D6, GSTM1, GSTT1 and NQO1 and altered susceptibility to leukaemia, correlating these genetic polymorphisms with clinical prognostic data, response to therapy and relapse. The study included 32 leukaemia patients, 19 with acute myeloid leukemia (AML) and 13 with acute lymphoid leukaemia (ALL), and 11 normal individuals (control group). Basic investigations for the diagnosis of AML and ALL were performed, including blood picture, bone marrow aspirate, cytochemistry and immunophenotyping for detection of subtypes. Detection of CYP2D6, NQO1, GSTM1 and GSTT1 genetic polymorphisms used a polymerase chain reaction-restriction fragment length polymorphism. A follow-up was made for association between the outcome of patients and different patterns of genetic polymorphisms. Results demonstrate a significant increase in the frequency of CYP2D6 wild-type and GSTM1 null genotypes in the acute leukaemia group compared with the control. Studying the relationship between polymorphisms of these genes and the outcome of our cases revealed the wild genotype of CYP2D6 significantly influenced the outcome of acute leukaemia particularly in AML cases, while GSTM1 null genotype was associated with bad prognosis among the ALL group. The study revealed that patients with combined mutant CYP2D6/present GSTM1/present GSTT1 achieved the best prognosis, suggesting synergistic impact of these genetic polymorphisms on the outcome of acute leukaemia cases. This case-control study suggests a contribution of CYP2D6 and GSTM1 null variants in the development of acute leukaemia. In addition, GSTM1 and GSTT1 genotypes were apparently related to response, side effects and prognosis of patients with AML.

On the pathogenesis of penile venous leakage: role of the tunica albuginea.

Shafik A, Shafik I, El Sibai O, Shafik AA.

Department of Surgery and Experimental Research, Faculty of Medicine, Cairo University, Cairo, Egypt.

Abstract

BACKGROUND: Etiology of venogenic erectile dysfunction is not exactly known. Various pathologic processes were accused but none proved entirely satisfactory. These include presence of large venous channels draining corpora cavernosa, Peyronie's disease, diabetes and structural alterations in fibroblastic components of trabeculae and cavernous smooth muscles. We investigated hypothesis that tunica albuginea atrophy with a resulting subluxation and redundancy effects venous leakage during erection. **METHODS:** 18 patients (mean age 33.6 +/- 2.8 SD years) with venogenic erectile dysfunction and 17 volunteers for control (mean age 31.7 +/- 2.2 SD years) were studied. Intracorporal pressure was recorded in all subjects; tunica albuginea biopsies were taken from 18 patients and 9 controls and stained with hematoxylin and eosin and Masson's trichrome stains. **RESULTS:** In flaccid phase intracorporal pressure recorded a mean of 11.8 +/- 0.8 cm H₂O for control subjects and for patients of 5.2 +/- 0.6 cm, while during induced erection recorded 98.4 +/- 6.2 and 5.9 +/- 0.7 cmH₂O. Microscopically, tunica albuginea of controls consisted of circularly-oriented collagen impregnated with elastic fibers. Tunica albuginea of patients showed degenerative and atrophic changes of collagen fibers; elastic fibers were scarce or absent. **CONCLUSION:** Study has shown that during erection intracorporal pressure of patients with venogenic erectile dysfunction was significantly lower than that of controls. Tunica albuginea collagen fibers exhibited degenerative and atrophic changes which presumably lead to tunica albuginea subluxation and floppiness. These tunica albuginea changes seem to explain cause of lowered intracorporal pressure which apparently results from loss of tunica albuginea veno-occlusive mechanism. Causes of tunica albuginea atrophic changes and subluxation need to be studied.

The role of heat shock protein 60, vascular endothelial growth factor and antiphospholipid antibodies in behcet's disease.

Shaker O, Ay El-Deen MA, El Hadidi H, Grace BD, El Sherif H, Abdel Halim A.

Departments of Medical Biochemistry, General Surgery, Dermatology, Medicine and Rheumatology, Faculty of Medicine, Cairo University, Cairo, Egypt

Abstract

BACKGROUND: Behçet disease is a systemic inflammatory disease of unknown aetiology. T cells in this disease proliferate vigorously in response to a specific peptide of heat shock protein (HSP) 60 in an antigen-specific fashion. Vascular endothelial cell growth factor (VEGF) is a cytokine participating in the inflammatory process. One of the prominent features of Behçet disease is vasculitis as a result of endothelial dysfunction. Antiphospholipid antibodies (APA) may play a role in the development of thrombosis by inhibiting production of prostacyclin by endothelial cells. **OBJECTIVES:** To investigate the role of HSP60, VEGF and APA in Behçet disease and their relation to clinical manifestations and disease activity. **METHODS:** Thirty patients with Behçet disease were included; 17 were in the active stage and 13 were in the inactive. Fifteen age- and sex-matched healthy subjects served as controls. Complete clinical examination and Doppler examination were done. Serum levels of HSP60, VEGF and APA were performed. **RESULTS:** Serum levels of HSP60, VEGF and APA were significantly higher in patients than in controls; however, their level did not correlate with disease activity. The serum level of VEGF correlated significantly with the presence of vascular manifestations and ocular involvement. The serum level of APA was greater in patients with thrombosis. HSP60 has an important role in aetiopathogenesis of Behçet disease, which sheds new light on its autoimmune nature. **CONCLUSIONS:** An elevated serum level of VEGF may be a risk factor for the development of ocular disease contributing to poor visual outcome.

The socioeconomic impact among Egyptian glaucoma patients.

Eldaly M, Hunter M, Khafagy M.

Ophthalmology Department, Faculty of Medicine, Cairo University,
Cairo, Egypt

Abstract

BACKGROUND/AIM: To evaluate the economic burden of intraocular pressure (IOP)-lowering medications on Egyptian patients with glaucoma, in addition to studying the social grounds of glaucoma education. **METHODS:** In a cross-sectional observational study, the clinical and socioeconomic data were collected from 68 glaucomatous patients who were attending the outpatient clinics of Cairo University Hospital, through interviews, questionnaires, and clinical examinations. **RESULTS:** Patients had a mean IOP of 22.9 mm Hg (SD 11.5). Just under half the patients had an IOP of over 30 mmHg although 88% were on medical treatment; average of 2.1 medications (SD 0.8). Patients had been spending 79.5 LE (SD 95.3) on glaucoma medications a month, which equals 30.1% of their monthly income. Forty per cent of patients did not know that glaucoma causes blindness. The primary source of knowledge about glaucoma for 79.4% of patients was the ophthalmologist. **CONCLUSION:** The lack of control of IOP is probably related to the economic burden associated with glaucoma medications. 'Glaucoma education' is an important issue to both the treating ophthalmologist and the patient.

27. **Bratisl Lek Listy.** 2007;108(2):75-82.

Metabolic encephalopathy in Egyptian children

Hindawy A, Gouda A, El-Ayyadi A, Megahed H, Bazaraa H.
Pediatric Department, Faculty of Medicine, Cairo University, Egypt.

Abstract

Fatty Acid Oxidation disorders represent an expanding group of inborn errors of metabolism. Clinical manifestations include episodic encephalopathy, hypoketotic hypoglycemia, Reye like episodes, hepatic, muscular, cardiac affection and sudden death. Analysis of urinary organic acids and plasma fatty acids of 44 clinically suspected patients by Gas Chromatography Mass spectrometry revealed 4 cases of Medium chain acyl-CoA dehydrogenase deficiency (MCADD), 3 cases of Very long chain acyl-CoA dehydrogenase deficiency, 9 cases of multiple defects of acyl-CoA dehydrogenation in addition to 3 patients with other metabolic disorders. Timely detection of these disorders including screening for MCADD can have a favorable impact on the outcome of these patients (Tab. 11, Fig. 3, Ref. 24).

Therapeutic potential of bone marrow-derived mesenchymal stem cells on experimental liver fibrosis

Abdel Aziz MT, Atta HM, Mahfouz S, Fouad HH, Roshdy NK, Ahmed HH, Rashed LA, Sabry D, Hassouna AA, Hasan NM.

Departments of Medical Biochemistry, Unit of Molecular Biology and Pathology, Faculty of Medicine, Cairo University, Cairo, Egypt

Abstract

OBJECTIVE: To study the effect of mesenchymal stem cells (MSC) on experimental liver fibrosis in rats. **DESIGN AND METHOD:** MSC were derived from bone marrow obtained from femoral and tibial bones of male albino rats. MSC were separated, grown, and propagated in culture for 4 weeks and were characterized morphologically and by detection of CD29 by RT-PCR. They were then infused into the tail vein of female rats that received CCl₄ injection to induce liver fibrosis. Rats were divided into 4 groups: control, CCl₄, CCl₄ plus MSC, and MSC. Liver tissue was examined histopathologically and liver functions (ALT and serum albumin) were estimated for all groups. Y-chromosome gene (sry) was assessed by PCR in liver tissue of the female rats to confirm uptake of the male stem cells. Hydroxyproline content in liver tissue was assessed by chemical methods and expression of the collagen gene (type I) was detected as a marker for liver fibrosis. Results of the present study showed that MSC have a significant antifibrotic effect as evidenced by the significant decrease in liver collagen gene expression as well as the decrease in hydroxyproline content in the CCl₄/MSC group ($p < 0.001$) compared to the CCl₄ group. The Y-chromosome gene (sry) was detected by RT-PCR in the CCl₄/MSC group, but was not detected in control group and other groups. The CD29 gene was expressed in MSC culture, and this confirmed the efficiency of isolation and propagation of MSC in culture. With regard to liver function, there was also a significant improvement and elevation of serum albumin in the CCl₄/MSC group compared to the CCl₄ group ($p < 0.05$). As regard to the liver enzyme ALT, there was a decrease of its level in the CCl₄/MSC group compared to the CCl₄ group. However, this was statistically nonsignificant ($p > 0.05$). In conclusion, MSC have a potential therapeutic effect against the fibrotic process through their effect in minimizing collagen deposition in addition to their capacity to differentiate into hepatocytes.

Circulating levels of osteoprotegerin and receptor activator of NF-kappaB ligand in patients with chronic renal failure.

Shaarawy M, Fathy SA, Mehany NL, Hindy OW.

Endocrinology and Maternal Biochemistry Labs, Department of Obstetrics & Gynecology,
Faculty of Medicine, Cairo University, Cairo, Egypt

Abstract

BACKGROUND: Osteoprotegerin (OPG) is a recently identified cytokine that acts as a decoy receptor for the receptor activator of nuclear factor-kappaB ligand (RANKL). OPG and RANKL have been shown to be important regulators of osteoclastogenesis. The aim of this study was to investigate the relationship between the OPG-RANKL system and bone mineral metabolism in patients with chronic renal failure (CRF). **METHODS:** Serum OPG, RANKL, osteocalcin, cross-linked c-telopeptide of type I collagen (ICTP), intact parathyroid hormone (PTH), bone alkaline phosphatase and cystatin C levels were measured in 40 chronic hemodialysis male patients and 32 age- and sex-matched healthy controls. Their lumbar spine bone mineral density (LS-BMD) was measured by dual energy X-ray absorptiometry. **RESULTS:** Serum OPG, RANKL, PTH, bone alkaline phosphatase and cystatin C levels were significantly increased in patients with CRF. Serum OPG was positively correlated to serum RANKL and cystatin C. Positive correlations were found between serum RANKL and cystatin C and ICTP. LS-BMD was significantly lower in patients with CRF than in controls. In patients with CRF, LS-BMD was inversely correlated to serum RANKL and cystatin C, whereas it was positively correlated to serum OPG. **CONCLUSIONS:** The OPG-RANKL system is involved in the pathogenesis and regulation of bone turnover in CRF. Circulating levels of OPG and RANKL may be useful markers to assess turnover renal osteopathies.

30. **Clin Exp Obstet Gynecol.** 2007;34(4): 244-6.

Effect of different types of textiles on pregnancy

Shafik A.

Department of Surgery and Experimental Research, Faculty of Medicine, Cairo University, Cairo,
Egypt

Abstract

PURPOSE OF INVESTIGATION: The effect of different types of textiles on pregnancy was studied in 35 pregnant bitches divided equally into one control and four experimental groups. **METHODS:** During pregnancy, the test groups were dressed in a garment made of either pure polyester, cotton or wool, or of a 50/50% polyester-cotton mix. Serum estradiol 17 B and progesterone were measured before and every 15 days during pregnancy. Electrostatic potential (EP) was assessed on the skin before and after wearing the garment. **RESULTS:** The bitches wearing cotton, wool and polyester-cotton mix as well as five of the seven wearing pure polyester garments had normal serum estradiol and progesterone during pregnancy and produced normal offspring. The remaining two animals of the group wearing pure polyester showed low serum progesterone levels in the first month of pregnancy and had spontaneous abortions. Mating was attempted in these two bitches during the subsequent estrous cycle without making them wear polyester garments. Serum levels of reproductive hormones were normal and they produced normal offspring. EP was detected on the skin of only the polyester-dressed groups, and was higher in the pure than in the mixed polyester groups. **CONCLUSIONS:** The cause of low serum progesterone and abortion in the two bitches is unknown. Abortion seemed to be due to the low serum progesterone which may have resulted from the injurious effect of EP on the ovarian or placental function.

Changing patterns of acute viral hepatitis at a major urban referral center in Egypt.

Zakaria S, Fouad R, Shaker O, Zaki S, Hashem A, Esmat G, Zakaria S, El-Kamary SS,

Departments of Tropical Medicine and Medical biochemistry, Faculty of Medicine, Cairo University, Cairo, Egypt

Department of Tropical Medicine, Faculty of Medicine, Al-Azhar University, Cairo, Egypt

Abstract

BACKGROUND: Changes in the viral etiology of hospitalized patients can inform us of changes in the overall epidemiology of acute viral hepatitis infections. We hypothesized that improvements in health care and sanitation in the past 2 decades in Egypt have significantly impacted the viral causes of acute viral hepatitis in hospitalized patients. We compared the viral causes of acute viral hepatitis at a major urban referral center with results reported from the same center 20 years earlier. **METHODS:** Over a period of 10 months, 200 consecutive inpatients with clinical acute viral hepatitis were enrolled in the study, and serum samples were tested for hepatitis A through E, cytomegalovirus, and Epstein-Barr virus. **RESULTS:** The frequency of acute hepatitis B virus infection as a cause of symptomatic hepatitis decreased from 43.4% in 1983 to 28.5% in 2002 ($P<.01$), and acute hepatitis A virus infection increased from 2.1% in 1983 to 34% in 2002 ($P<.01$), and occurred at older ages. In 1983, non-A, non-B hepatitis virus infection caused acute viral hepatitis in 38.7% of cases, compared with 31% in the present study ($P=.12$). The mean alanine aminotransferase level was highest in patients with combined infections, and clinical presentation did not distinguish between different viral etiologies of hepatitis. **CONCLUSIONS:** A significant decrease in hepatitis B virus infection and an increase in hepatitis A virus infection have occurred since the earlier study was performed in 1983. The decrease in hepatitis B virus infection is attributable to the steep decrease in hepatitis B virus infection among children that resulted from the universal hepatitis B virus immunization of infants that was initiated in 1991. The increase in clinical hepatitis A virus infection occurred in older patients and could be attributed to improved sanitation that delayed individuals' initial exposures to the virus.

Hughes-Stovin syndrome: is it incomplete Behçet's? Report of two cases and review of the literature.

Emad Y, Ragab Y, Shawki Ael-H, Gheita T, El-Marakbi A, Salama MH.

Rheumatology and Rehabilitation Department, Faculty of Medicine, Cairo University, Cairo, Egypt

Abstract

In this report, we described two male patients with Hughes-Stovin syndrome. The first patient was a 26-year-old male who initially presented with deep vein thrombosis (DVT) in the right lower limb followed shortly by hemoptysis. Pulmonary CT angiography revealed bilateral pulmonary artery aneurysms secondary to underlying pulmonary vasculitis. While the second case was a 16-year-old male patient who initially presented with generalized fits due to sagittal sinus thrombosis and later followed by DVT in the left lower limb. Pulmonary CT angiography showed small pulmonary artery aneurysms with thrombosis of peripheral pulmonary artery branches. Both patients were treated successfully with steroids and immunosuppressive therapy and showed clinical improvement.

Inflammatory synovitis due to underlying lipoma arborescens (gadolinium-enhanced MRI features): report of two cases.

Ragab Y, Emad Y, Banakhar A.

Faculty of Medicine, Department of Radiology, Cairo University,
Cairo, Egypt

Abstract

Lipoma arborescens (synovial lipomatosis) is a rare, benign intra-articular lesion of unknown etiology. It is a very rare primary benign tumour of the synovium, which usually affects the knee joint and can lead to slowly progressive chronically swollen knee. In this report we described two cases with this rare entity with initial presentation of inflammatory synovitis. We also described the Gadolinium (Gd-DTPA)-enhanced MRI features. To the best of our knowledge, this is the first report that described inflammatory synovitis in association with this rare entity.

34. *Cochrane Database Syst Rev.* 2007 Oct 17;(4):CD005071.

Gonadotrophins for idiopathic male factor subfertility.

Attia AM, Al-Inany HG, Farquhar C, Proctor M.

Department of Obstetrics & Gynaecology, Faculty of Medicine, Cairo University, Cairo, Egypt,

Abstract

BACKGROUND: Male factor infertility accounts for 50% of all infertility. The treatment of idiopathic male infertility is empirical. Urinary, purified, and recombinant gonadotrophins have been used to improve sperm parameters in idiopathic male infertility with the goal of increasing pregnancy rates. Research addressing pregnancy rates in partners of men treated with gonadotrophins has had conflicting results and needs to be analysed. **OBJECTIVES:** To determine the effectiveness of gonadotrophin administration in men with idiopathic subfertility in improving spontaneous pregnancy rate and in assisted reproductive technique cycles. **SEARCH STRATEGY:** We searched the Cochrane Menstrual Disorders and Subfertility Group trials register (31 May 2007), the Cochrane Central Register of Controlled Trials (The Cochrane Library, issue 2, 2007), MEDLINE (1966 to May 2007), EMBASE and Biological Abstracts (1980 to Week 21 2007). Searches were not limited by language. The bibliographies of included, excluded trials and abstracts of major meetings were searched for additional trials. Authors and pharmaceutical companies were contacted for missing and unpublished data. **SELECTION CRITERIA:** Truly randomised controlled trials where gonadotrophins were administered for the treatment of idiopathic male subfertility with reporting of pregnancy rates were included in the review. **DATA COLLECTION AND ANALYSIS:** Two reviewers independently assessed trial quality and extracted data. Study authors were contacted for additional information. Adverse effects information was collected from the trials. We analysed data regarding pregnancy occurring within three months after gonadotrophin therapy. **MAIN RESULTS:** Four RCTs with 278 participants were included in the analysis. None of the studies had an adequate sample size and they had variable follow-up periods. None of the studies reported live birth or miscarriage rates. Compared to placebo or no treatment, gonadotrophins showed a significantly higher pregnancy rate per couple randomized within three months of completing therapy (OR 4.17, 95% CI 1.30 to 7.09). **AUTHORS' CONCLUSIONS:** The number of trials and participants is insufficient to draw final conclusions. A large multicenter study with adequate power is needed.

Pigmentary disorders in the Mediterranean area

El-Mofty MA, Esmat SM, Abdel-Halim MR

Department of Dermatology, Faculty of Medicine, Cairo University,
Cairo, Egypt

Abstract

The Mediterranean area represents the area of land that borders the Mediterranean basin. It is composed of several countries that share many geographic and racial characteristics. Although Mediterraneans seem to share common skin type and are subjected to similar environmental factors, they still represent a genetic and socioeconomic diversity. True prevalence of pigmentary disorders in this area depends on large epidemiologic studies, including countries that are not available. This article, however, highlights and classifies the most important developmental (heritable-genetic) and acquired pigmentary disorders seen and reported in this important area of the world.

36. **Dialysis Transplant** Jan 2007

IF: **0,248**

Influence of plasma volume status on blood pressure in patients on maintenance hemodialysis

Ibrahim S, Taweel A

Department of Internal Medicine, Faculty of Medicine, Cairo University,
Cairo, Egypt.

A novel concept for the surgical anatomy of the perineal body.

Shafik A, Sibai OE, Shafik AA, Shafik IA.

Department of Surgery and Experimental Research, Faculty of Medicine, Cairo University, Cairo, Egypt

Abstract

PURPOSE: Perineal body is considered by investigators as a fibromuscular structure that is the site of insertion of perineal muscles. We investigated the hypothesis that perineal body is the site across which perineal muscles pass uninterrupted from one side to the other. **METHODS:** Perineal body was studied in 56 cadaveric specimens (46 adults, 10 neonatal deaths) by direct dissection with the help of magnifying loupe, fine surgical instruments, and bright light. **RESULTS:** Perineal body consisted of three layers: 1) superficial layer, which consisted of fleshy fibers of the external anal sphincter extending across perineal body to become the bulbospongiosus muscle; 2) tendinous extension of superficial transverse perineal muscle crossing perineal body to contralateral superficial transverse perineal muscle, with which it formed a criss-cross pattern; and 3) tendinous fibers of the deep transverse perineal muscle; the fibers crossing perineal body decussated in criss-cross pattern with the contralateral deep transverse perineal muscle. A relation of levator ani or puborectalis muscles to perineal body could not be identified. **CONCLUSIONS:** Perineal body (central perineal tendon) is not the site of insertion of perineal muscles but the site along which muscle fibers of these muscles and the external anal sphincter pass uninterrupted from one side to the other. Such a free passage from one muscle to the other seems to denote a "digastric pattern" for the perineal muscles. Perineal body is subjected to injury or continuous intra-abdominal pressure variations, which may eventually result in perineocele, enterocele, or sigmoidocele.

38. **East Mediterr Health J.** 2007 Jul-Aug;13(4):780-6.

Screening for beta-thalassaemia carriers in Egypt: significance of the osmotic fragility test.

El-Beshlawy A, Kaddah N, Moustafa A, Mouktar G, Yousry I.

Department of Paediatrics, Faculty of Medicine, Cairo University, Cairo, Egypt

Abstract

To estimate beta-thalassaemia carrier rate and to determine an accurate mass screening test, we tested 1000 randomly selected children aged 5-16 years from different geographical areas of Egypt. Microcytosis was present in 412 participants. The osmotic fragility test was positive in 81.1% of the 90 beta-thalassaemia carriers; in the indeterminate group (12 participants), the test was positive in 83.3%; in the 310 who were iron deficient, the test was positive in 63.9%. beta-thalassaemia carrier rate was $\geq 9\%$. Serum iron, microcytosis, HbA2 level and transferrin saturation were accurate tests for detecting carriers. For the one-tube osmotic fragility test, sensitivity was 87.0% and specificity 34.1%; the test has limited use for a mass screening programme in Egypt, where iron deficiency is prevalent.

Bipolar radiofrequency treatment for snoring with mild to moderate sleep apnea: a comparative study between the radiofrequency assisted uvulopalatoplasty technique and the channeling technique.

Bassiouny A, El Salamawy A, Abd El-Tawab M, Atef A.
Department of Otolaryngology, Faculty of Medicine, Cairo University,
Cairo, Egypt

Abstract

We compared radiofrequency techniques used in the treatment of snoring and obstructive sleep apnea [radiofrequency assisted uvulopalatoplasty (RAUP) and channeling] as regard the efficacy and morbidity. A pilot, prospective randomized single blinded study was conducted on 40 patients in the ENT Department, Kasr Al-Aini Hospital, Cairo University during the period from April to December 2003. Patients were randomized into two groups each consisting of 20 patients. The first group was treated by submucosal channeling of the palate, while the second group was treated by radiofrequency assisted uvulopalatoplasty (RAUP). Patients were followed for 4 months, filling a questionnaire in a standard visual analogue score pattern. Assessment was done prior to the surgery and was repeated 3, 10 days and 3 weeks postoperatively. Visual analogue scores were done for the following parameters: pain, speech deficits, dysphagia, and snoring (by the bed partner). Polysomnography was done pre to intervention and was repeated 4 months postoperatively. This work confirms the favorable effects of radiofrequency in the treatment of patients with snoring and mild to moderate obstructive sleep apnea (OSA) particularly on snoring, confirming the results of the previous studies and highlighting the more rapid relief of snoring and apnea in RAUP group compared to channeling group but with more postoperative pain and morbidity.

40. **Eur J Dermatol.** 2007 Jul-Aug;17(4):351-2.

IF: **1,303**

Lipedema and lipedematous alopecia: report of 10 new cases.

El Darouti MA, Marzouk SA, Mashaly HM, El Nabarawi EA, Abdel-Halim MR, El Komy MM, Hafez VG, Abdel Reheem HM, Moussa KM.

Dermatology Department, Faculty of Medicine, Cairo University, Cairo, Egypt

Ultrasound biomicroscopy in the diagnosis of skin diseases.

**El-Zawahry MB, Abdel El-Hameed El-Cheweikh HM, Abd-El-Rahman Ramadan S,
Ahmed Bassiouny D, Mohamed Fawzy M.**

Department of Dermatology, Kasr El-Aini University Hospital, Cairo-University, Cairo, Egypt.

Abstract

Ultrasound scanning is becoming an important diagnostic tool in dermatology. The major advantages of this technique are its non invasive non-ionizing nature and its relatively low cost. We aimed to evaluate the accuracy of ultrasound biomicroscopy (UBM) in the diagnosis of eight skin disorders namely, morphea, keloid, lichen planus, chronic eczema, psoriasis, port wine stain, seborrheic keratosis, and photo-aged skin, through correlation of its findings with clinical and pathological assessment. Fifty seven patients with the above diseases were examined by ultrasound biomicroscopy (UBM). Two areas, one of normal skin and the other from lesional skin, were examined for each patient. Skin biopsies were taken from the same lesion examined by UBM. In morphea, the dermal echogenicity was increased and the thickness of morphea plaques correlated significantly with disease severity. Keloids appeared as low echogenic images. In lichen planus and chronic eczema the dermis appeared as sound shadow. In psoriasis, an intermediate zone between the epidermis and dermis (B zone) was detected. Its thickness correlated significantly with the PASI score. Port wine stain lesions appeared hypoechoic. Seborrheic keratosis appeared as a sound shadow. In photo-aged skin a subepidermal low echogenic band (SLEB) was detected. We conclude that UBM is a non-invasive diagnostic tool in dermatology which can be used to give valuable information about disease progress and the effectiveness of therapy.

Effect of cooling on the rectal tone

Shafik A, El Sibai O, Shafik I, Shafik AA.

Department of Surgery and Experimental Research, Faculty of Medicine, Cairo University, Cairo, Egypt

Abstract

OBJECTIVES: It has been claimed that recognizable organized sensory nerve endings could not be detected in the rectal wall. Hence the identification of cold receptors sensitive to cold temperature in the rectal wall has so far not been reported in the literature. We investigated the hypothesis that rectal cooling effected an increase of the rectal tone. **METHODS:** Twenty-eight healthy volunteers (18 men, 10 women, age 26-50 years) were studied. The rectal wall tone was assessed by the barostat system during infusion of normal saline at 30 degrees C and at 4 degrees C. The test was repeated after rectal anesthetization with lidocaine. **RESULTS:** The rectal tone on rectal saline infusion showed no response at a temperature of 30 degrees C, and a significant increase ($p < 0.05$) at 4 degrees C. The latency measured by the switch-inflation apparatus recorded a mean of 15.3 +/- 1.2 ms. Iced saline infusion into the anesthetized rectum effected no significant change in the rectal tone. **CONCLUSIONS:** The current study has demonstrated that rectal infusion of iced saline produced an increase of the rectal tone. This effect is suggested to be a reflex and mediated through the 'rectal cooling reflex'. The reflex is suggested to act as an investigative tool in the diagnosis of rectal motile disorders provided further studies are performed.

NaviStar ThermoCool catheter for ventricular tachycardia.

Abdelwahab A, Sapp JL.

QEII Health Sciences Centre, Department of Medicine, Cardiology Division, Halifax, Nova Scotia, Canada.

Abstract

Despite the relatively short history of catheter ablation, it has clearly demonstrated high efficacy and safety in treating a wide spectrum of cardiac arrhythmias. An important contributor to this success has been the rapid incorporation of evolving technologies that have changed the practice of electrophysiology remarkably. The introduction of irrigated radiofrequency ablation has allowed electrophysiologists to tackle complex arrhythmias, such as atrial fibrillation and ventricular tachycardia, with a higher success rate. Similarly, the introduction of 3D mapping systems has enhanced our understanding of arrhythmia mechanisms and allowed for integration of electrophysiologic and anatomically guided ablation. In 2006, the US FDA approved the Navistar ThermoCool ablation catheter, which incorporates an irrigated tip design with electroanatomical guidance, for ventricular tachycardia ablation. The design of this catheter, its clinical profile, its potential advantages and possible complications associated with its use in ventricular tachycardia ablation are discussed herein.

Among women undergoing embryo transfer, is the probability of pregnancy and live birth improved with ultrasound guidance over clinical touch alone? A systemic review and meta-analysis of prospective randomized trials

Abou-Setta AM, Mansour RT, Al-Inany HG, Aboulghar MM, Aboulghar MA, Serour GI.

Gynecology & Obstetrics Department, Faculty of Medicine, Cairo University, Cairo, Egypt

The Egyptian IVF-ET Center, Cairo, Egypt

Abstract

OBJECTIVE: To investigate the theory that ultrasound guidance during ET improves clinical outcomes. **DESIGN:** Systematic review of prospective, randomized, controlled trials comparing ultrasound with clinical touch methods of embryo catheter guidance. **SETTING:** Infertility centers. **PATIENT(S):** 5,968 ET cycles in women. **INTERVENTION(S):** Embryo transfer with or without ultrasound guidance. **MAIN OUTCOME MEASURE(S):** Meticulous electronic (e.g., PubMed, EMBASE, CENTRAL) and hand searches were performed to locate trials. Primary outcome measures were the live-birth, ongoing pregnancy, and clinical pregnancy rates. Secondary outcome measures were the implantation, multiple pregnancies, and miscarriage rates. In addition, the incidences of ectopic pregnancies and difficult transfers were evaluated. **RESULT(S):** Twenty-five studies were retrieved, of which five were excluded. Meta-analysis of the remaining studies (5,968 ET cycles in women) was conducted by using the Mantel-Haenszel method (fixed-effect model). There was a significantly increased chance of a live birth (odds ratio [OR] = 1.78, 95% confidence interval [CI] = 1.19 to 2.67), ongoing pregnancy (OR = 1.51, 95% CI = 1.31 to 1.74), clinical pregnancy (OR = 1.50, 95% CI = 1.34 to 1.67), embryo implantation (OR = 1.35, 95% CI = 1.22 to 1.50), and easy transfer rates after ultrasound guidance (OR = 0.68, 95% CI = 0.58 to 0.81). There was no difference in multiple pregnancy, ectopic pregnancy, or miscarriage rates. **CONCLUSION(S):** Ultrasound-guided ET significantly increases the chance of live birth and ongoing and clinical pregnancy rates compared with the clinical touch method.

In vitro sildenafil citrate use as a sperm motility stimulant

Mostafa T.

Andrology & Sexology Department, Faculty of Medicine, Cairo University, Cairo, Egypt

Abstract

The effect of different concentrations of sildenafil citrate (Viagra) solution in vitro on human sperm motility was assessed in 85 asthenozoospermic semen specimens. Semen samples were divided equally into six tubes, one as a control and to the others, sildenafil dissolved solution was added (v/v) in vitro with five different concentrations (4.0, 2.0, 1.0, 0.5, 0.1 mg/mL). The tubes were incubated and were followed up for sperm motility changes at 0.5, 1, 2, and 3 hours. It is demonstrated that the in vitro use of sildenafil citrate solution has a concentration-related stimulatory effect on ejaculated sperm motility.

Impairment of the insulinotropic effect of gastric inhibitory polypeptide (GIP) in obese and diabetic rats is related to the down-regulation of its pancreatic receptors.

Younan SM, Rashed LA.

Department of Physiology and Medical Biochemistry, Faculty of Medicine, Cairo University, Cairo, Egypt

Abstract

The association of obesity with type 2 diabetes mellitus has been recognized for years. In type 2 diabetes, there is a possibility that an important part of the impaired insulin secretion is due to the gastric inhibitory polypeptide (GIP) hormone. This study investigated changes that occur in the pancreatic GIP receptors' (GIP-Rs) expression and in GIP secretion in obese and type 2 diabetic rats and its relation to plasma glucose and insulin levels during oral glucose tolerance test (OGTT) compared to control rats. During the first 20 min of the OGTT, both the obese and the diabetic rats had a significant increase in the glucose excursion and a significant decrease in early-insulin secretion compared to the control group, with more prominent changes in the diabetic group. The obese rats had a significant increase in fasting GIP level and in the incremental change of GIP from 0 to 20 min (GIP Delta 0-20: 60.1 + or - 6.66 pmol/l) compared to that of the control (33.96 + or - 4.69 pmol/l) and the diabetic (29.34 + or - 2.62 pmol/l) group, which were not significantly different from each other. However, there was a significant decrease in GIP-Rs expression in both the obese (88.07 + or - 10.36 microg/ml) and diabetic (87.51 + or - 4.72 microg/ml) groups compared to the control group (120.35 + or - 8.06 microg/ml). During the second hour of the OGTT, plasma GIP was decreasing in all groups, however, the obese group had a significant hyperinsulinemia compared to the other two groups. Moreover, the diabetic group had a significantly lower plasma insulin level until the 90 min interval and thereafter it showed a non-significant difference compared to the control group. In conclusion, both obese and diabetic rats had an impaired early-phase insulinotropic effect of GIP due to impaired gene expression of GIP-Rs which could be a potential target to prevent transition of obesity to diabetes and to improve insulin secretion in the latter.

**Subclinical hyperthyroidism as a potential factor for
dysfunctional uterine bleeding**

Attia AH, Youssef D, Hassan N, El-Meligui M, Kamal M, Al-Inany H.

Department of Obstetrics & Gynecology and Chemical Pathology, Cairo University, Cairo, Egypt

Abstract

OBJECTIVE: To evaluate the functional status of the thyroid gland in apparently euthyroid women with dysfunctional uterine bleeding. **MATERIALS AND METHODS:** Forty apparently euthyroid women with menorrhagia and no pathologic lesion in the genital tract were compared with 20 women having normal menstrual cycles as controls. All women underwent hormonal evaluation: serum total and free triiodothyronine (T3), thyroxine (T4), thyroid-stimulating hormone (TSH) and serum prolactin. **RESULTS:** Statistically significant differences were observed in the values of TSH, total T3, free T3, free T4 and total T4 between the menorrhagia and the control group. Prolactin was increased significantly in the menorrhagia group. **CONCLUSION:** Subclinical hyperthyroidism can be a potential risk factor for dysfunctional uterine bleeding. Other studies are needed to confirm our findings.

Comparative study of three amniotic fluid markers in premature rupture of membranes: prolactin, beta subunit of human chorionic gonadotropin, and alpha-fetoprotein

Shahin M, Raslan H.

Department of Obstetrics & Gynecology, Cairo University, Cairo, Egypt

Abstract

OBJECTIVE: To evaluate whether prolactin, alpha-fetoprotein (AFP) or B-human chorionic gonadotropin (BHCG) is the most effective marker in vaginal fluid for diagnosing prelabor rupture of membranes (PROM). These proteins are present in amniotic and vaginal fluid and have been reported to be potent markers of PROM, but have not been used clinically nor compared to each other. **STUDY DESIGN:** A total of 100 pregnant women between 28 and 37 weeks of gestation were recruited for the study. Patients were divided into 2 groups. The first group consisted of 50 pregnant women diagnosed with ruptured membranes. The second group consisted of 50 normal pregnant women seen during routine antenatal clinic visit (control) group. All women underwent speculum examination aiming to sample prolactin, BHCG and AFP in the vaginal fluid. Ultrasonographic examination for gestational age and amniotic fluid index measurement was performed. The electrochemoluminescence (ECLIA) method was used for quantitative measurement of the three proteins (the total duration of the assay was 18 min). **RESULTS:** Vaginal fluid concentrations of the three markers were significantly higher in the PROM group than in the control group ($p < 0.001$). Receiver operator curve analysis indicated that AFP had 94% specificity, sensitivity, positive and negative predictive values, and efficiency. The other two markers have lower specificity, sensitivity, positive and negative predictive values, and efficiency: 70, 76, 71.7, 74.5 and 73% for prolactin and 72, 84, 75, 81.8 and 78% for BHCG, respectively. **CONCLUSION:** This work demonstrates that of the three markers investigated AFP has the highest diagnostic performance. Using the ECLIA method it can be an ideal marker for diagnosing PROM particularly in equivocal cases. The technique could be introduced into laboratory tests to meet clinical needs.

Radiofrequency ablation of atypical atrial flutter after cardiac surgery or atrial fibrillation ablation: a randomized comparison of open-irrigation-tip and 8-mm-tip catheters.

Bai R, Fahmy TS, Patel D, Di Biase L, Riedlbauchova L, Wazni OM, Schweikert RA, Burkhardt JD, Saliba W, Natale A.

Department of Cardiovascular Medicine, Section of Cardiac Electrophysiology & Pacing,
Cleveland Clinic Foundation, Cleveland, Ohio, USA.

Critical care Unit, Faculty of Medicine, Cairo University, Cairo, Egypt

Abstract

BACKGROUND: The efficacy of radiofrequency ablation of atypical atrial flutter (AAFL) remains relatively low. This is probably related to the complex mechanism of this arrhythmia or may be due to an inability to deliver sufficient energy during ablation. **OBJECTIVE:** The aim of this study is to assess whether an open-irrigation-tip catheter or an 8-mm-tip catheter is more effective for ablation of AAFL in patients with prior history of cardiac surgery and/or catheter ablation of atrial fibrillation. **METHODS:** Seventy patients with AAFL after cardiac surgery/atrial fibrillation ablation were randomized for ablation with either an open-irrigation-tip catheter (Group 1, n=36) or an 8-mm-tip catheter (Group 2, n=34). Acute success was defined as the termination of AAFL by radiofrequency delivery and noninducibility by programmed pacing at the end of procedure. Patients' postoperative courses were followed up by means of intermittent standard electrocardiogram (ECG), transtelephonic ECG monitoring, and telephone interview. All patients underwent 48-hour Holter monitoring at their 3-, 6-, and 9-month follow-up after ablation. **RESULTS:** Acute success was achieved in 34 patients (94.4%) in Group 1 and 26 patients (76.5%) in Group 2 ($P < .05$). As compared with the patients in Group 2, more patients in Group 1 remained in sinus rhythm without antiarrhythmic drugs at 90-day follow-up (22 vs 8, $P < .05$). After 10 months of follow-up, 91.7% of the patients from Group 1 were free of atrial tachyarrhythmias, whereas only 58.9% of the patients from Group 2 remained in sinus rhythm ($P < .05$). The fluoroscopy and radiofrequency times were significantly shorter when an open-irrigation-tip ablation catheter was used. **CONCLUSION:** In patients with a prior history of cardiac surgery or ablation for atrial fibrillation, an open-irrigation-tip catheter is superior to an 8-mm-tip catheter for radiofrequency ablation of scar-related AAFLs. Patients ablated with an open-irrigation-tip catheter seem to have higher acute success rate with less x-ray exposure and radiofrequency delivery, and have a more favorable long-term outcome with more patients maintaining sinus rhythm without antiarrhythmic drugs.

Study of beta-Thalassemia mutations using the polymerase chain reaction-amplification refractory mutation system and direct DNA sequencing techniques in a group of Egyptian Thalassemia patients.

El-Gawhary S, El-Shafie S, Niazi M, Aziz M, El-Beshlawy A.

Department of Clinical Pathology and Pediatrics, Faculty of Medicine, Cairo University, Cairo, Egypt

Abstract

The aim of this study was the molecular characterization of beta-thalassemia (thal) mutations in a group of 95 Egyptian thalassemic patients from Fayoum in Upper Egypt, Cairo, Alexandria and Tanta in Lower Egypt and the Nile Delta. To identify these anomalies, the polymerase chain reaction-amplification refractory mutation system (PCR-ARMS) technique was used, complemented by direct DNA sequencing for uncharacterized cases. In 80 of the 95 patients, the beta-thal mutation was detected by PCR-ARMS. The most common allele encountered in our study was IVS-I-6 (T-->C) (36.3%); the second most common mutation was IVS-I-110 (G-->A) (25.8%). In addition, we report three homozygous cases for the promoter region -87 (C-->G) allele with a frequency of 3.2%. DNA sequencing of uncharacterized cases (14 cases, 15 alleles) revealed six cases (six alleles) of codon 27 (G-->T), and three cases (three alleles) of the IVS-II-848 (C-->A) mutation. Codon 37 (G-->A) in the homozygous state was found in one patient with positive consanguinity. The frameshift codon 5 (-CT) mutation was detected in two of our uncharacterized cases. The codon 15 (TGG-->TGA) mutations was detected in one patient (one allele, 0.5%). All studied cases were fully characterized by this strategy. Screening for beta-thalassemic mutations using ARMS-PCR for the seven most frequent alleles in Egypt succeeded in determining the beta-globin genotype in 84.2% of our patients (91.6% of the expected alleles). To improve the efficiency of routine screening, the PCR-ARMS mutation panel should be updated to include the reported rare alleles. Direct DNA sequencing is an additional way to allow a full characterization of beta-thal patients in the Egyptian population.

Skin iron concentration: a simple, highly sensitive method for iron stores evaluation in thalassemia patients.

Youssry I, Mohsen NA, Shaker OG, El-Hennawy A, Fawzy R, Abu-Zeid NM, El-Beshlawy A.

Department of Pediatrics and Medical Biochemistry, Faculty of Medicine, Cairo University, Cairo, Egypt.

Abstract

Iron overload is a potentially fatal complication in thalassemia patients. Accurate assessment of body iron is of utmost importance for these patients. The available methods for iron stores evaluation have limitations. We assessed biochemically the skin iron concentration (SIC) and determined the relation between the hepatic and skin iron level in thalassemia major patients to develop a simple, sensitive, quantitative measure of the body iron stores. Thirty-one cases with thalassemia major were assessed for iron overload. Liver and skin biopsies were performed for the patients and skin biopsies were taken from the 31 controls. The biopsies were subjected to biochemical assay of iron and histologic sections were examined. The SIC of the studied cases was significantly higher than that of the control group with a mean of 2.705 +/- 1.14 and 0.275 +/- 0.13 mg/g dry skin weight, respectively, $p < 0.001$. There was significant correlation between the SIC and the liver iron concentration (LIC) ($r = 0.43$, $p = 0.01$). The amount of liver iron is equivalent to $[(3.5 \times \text{SIC}) + 12.9]$. With the use of this equation, we could reliably estimate an LIC value as high as 21.2 mg/g dry liver weight with a standard error of 4.07. Biochemical assay of the skin iron concentration is a reliable quantitative indicator of the body iron stores in patients with thalassemia major.

Study of the effect of ileal distension on the motor activity of the jejunum, and of jejunal distension on the motor activity of the ileum.

Shafik A, Shafik AA, El SO, Shafik IA.

Department of Surgery and Experimental Research, Faculty of Medicine, Cairo University, Egypt.

Abstract

BACKGROUND/AIMS: The effect of ileal distension on the jejunal motor activity and of jejunal distension on the ileal motility have been poorly addressed in the literature. We investigated the hypothesis that distension of either ileum or jejunum would affect the motile activity of the other. **METHODOLOGY:** Response of jejunal pressure to ileal balloon distension and of ileal pressure to jejunal distension in increments of 2 mL of normal saline was recorded in 18 dogs. The test was performed after individual local anesthetization of the ileum and jejunum and was repeated using saline instead of lidocaine. **RESULTS:** Ileal distension with 2, 4, and 6mL of saline produced no jejunal pressure response ($p > 0.05$), while 8- and up to 12-mL distension effected jejunal pressure decrease ($p < 0.05$). Jejunal distension up to 6mL did not change ileal pressure ($p > 0.05$); distension with 8, 10, and 12 mL reduced it ($p < 0.05$). Jejunal or ileal pressure responses were maintained as long as ileal or jejunal distension was continued. Distension of the anesthetized ileum or jejunum did not produce significant pressure changes in either. **CONCLUSIONS:** Jejunal or ileal pressure decrease and presumably hypotonia upon large-volume ileal or jejunal, respectively, distension postulate reflex relationship which we call 'ileal-jejunal and jejuno-ileal inhibitory reflex'. These reflexes appear to regulate chyme flow in small intestine by creating a balance of chyme delivery between the jejunum and ileum. Reflex derangement in neurogenic and myogenic diseases may result in gastrointestinal disorders, a point that needs to be investigated.

**Sperm suspension is a highly ultrasonically visible material:
a novel model to study uterine activity**

Mansour RT, Al-Inany HG, Abou-Setta AM, Murad L, Serour GI, Aboulghar MA.

The Egyptian IVF-ET Center, Cairo, Egypt.

Department of Obstetrics & Gynecology, Cairo University, Cairo, Egypt.

Abstract

BACKGROUND: The aims of this study were to find an ultrasonically echogenic material to study the uterine activity, and to test whether closing the vaginal speculum on the cervix prevents the displacement of the injected material. **METHODS:** A concentrated sperm suspension was used as an ultrasonically visible material. Forty-five women undergoing intrauterine insemination were randomized into: open speculum group (n=23) and closed speculum group (n=22). Mimicking embryo transfer, 50 ul of concentrated sperm suspension was injected intrauterine while the vaginal speculum was open in 23 patients. In the other group, the two blades of the vaginal speculum were closed on the cervix, then 50 ul of concentrated sperm suspension was injected. The ultrasonically visible material was observed in the uterine cavity for 10 min during which the procedure was video-recorded. **RESULTS:** The injected sperm suspension was clearly visible in all cases. In the closed speculum group, the echogenic droplet remained in the upper uterine segment in 18 cases (82%) and moved towards the lower uterine segment in six cases (18%). In the open speculum group, the echogenic droplet remained in the upper uterine segment in only six cases (26%) and it moved towards the lower uterine segment and passed through the cervical canal in 17 cases (74%). **CONCLUSIONS:** For the first time in the medical literature, a concentrated sperm suspension was used as an ultrasonographically visible material to study uterine activity. Closing the portio-vaginalis of the cervix prevents the displacement of the injected material.

54. *Ital J Biochem.* 2007 Mar;56(1):18-27.

Plasma levels of adrenomedullin and atrial natriuretic peptide in patients with congestive heart failure of various etiologies.

Randa Abdel Kader M, Grace BD, Badawi NE.

Medical Biochemistry and Internal Medicine Departments, Faculty of Medicine, Cairo University

Abstract

OBJECTIVE: The aim of this study was to evaluate the plasma levels of the adrenomedullin (ADM) and atrial natriuretic peptide (ANP) in adult and pediatric patients with congestive heart failure (CHF) of various etiologies and to investigate their relations with haemodynamic variables e.g. echocardiographic left ventricular ejection fraction (LVEF) and fractional shortening (FS). **SUBJECTS AND METHODS:** The study was made in 38 adult and 21 pediatric patients with CHF of various etiologies and compared with 15 adult and 10 pediatric normal healthy controls. Patients with CHF were classified according to the New York Heart Association (NYHA) functional classification into grades II to IV in adult patients and into grade IV in all pediatric patients. ADM and ANP plasma levels were determined prior to the treatment with enzyme immunoassay. **RESULTS:** A statistically significant difference in the plasma levels of ADM and ANP were found between pediatrics and adult patients and corresponding healthy controls. Their levels were progressively increased with severity of NYHA class in adult patients. We found a significant positive correlation between plasma levels of each of ADM and ANP and pulse rate, systolic and diastolic blood pressure; and a significant negative correlation between their plasma levels and echocardiographic LVEF and FS. A significant positive correlation between plasma levels of ADM and ANP in both pediatrics and adult patients were also found. **CONCLUSION:** Plasma levels of ADM and ANP increased in adult and pediatric patients with CHF irrespective of the cause. They were positively correlated with each other and negatively correlated with LVEF and FS. These findings might have important clinical implications in that a noninvasive blood test may be used to identify high-risk subjects for HF for more invasive procedures.

55. **Indian J Pediatr.** 2007 Mar;74(3):279-81.

Safety and efficacy of rifampicin in children with cholestatic pruritus.

El-Karakasy H, Mansour S, El-Sayed R, El-Raziky M, El-Koofy N, Taha G.
Department of Pediatrics, Faculty of Medicine, Cairo University, Cairo, Egypt.

Abstract

OBJECTIVE: The present study aimed at verifying the safety and efficacy of rifampicin in ameliorating pruritus in cholestatic children. **METHODS:** Twenty-three Egyptian children (14 boys and 9 girls), suffering from intractable pruritus of cholestasis, were included. Rifampicin was started at a dose of 10 mg/Kg/day in two divided doses and increased gradually to a maximum of 20 mg/Kg/day if there was no response. Liver function tests were followed up weekly. **RESULTS:** Seventeen patients (74%) showed improvement of pruritus with rifampicin. None of the patients showed any deterioration in liver functions. **CONCLUSION:** Rifampicin in a dose of 10-20 mg/Kg/day is safe and effective in ameliorating uncontrollable pruritus in children with persistent cholestasis.

Prostatic massage: a simple method of semen retrieval in men with spinal cord injury.

Arafa MM, Zohdy WA, Shamloul R.

Andrology & Sexology Department, Cairo University, Cairo, Egypt

Abstract

The aim of this study was to evaluate the efficacy of prostatic massage (PM) as a method for obtaining semen in men with spinal cord injury (SCI) and to evaluate the semen parameters in the semen samples obtained by this method. Sixty-nine patients with SCI underwent PM as a trial for semen retrieval. History taking, examination and hormonal assay analysis (follicle-stimulating hormone, luteinizing hormone, prolactin and testosterone) were performed in all patients. Patients were grouped as follows: group 'A' where sperm could be successfully retrieved by PM and group 'B' where no sperm could be retrieved. PM resulted in the production of prostatic secretion in 51 patients (73.9%) and no secretion was obtained in 18 patients. Spermatozoa were successfully retrieved in only 22 patients (31.9%). The semen analysis of the sperm-positive samples showed asthenoteratozoospermia with decreased vitality and increased number of leucocytes. Semen collection by PM was significantly higher in patients with an SCI level above T10. PM is a safe and simple outpatient clinic procedure that can be easily used to retrieve semen in men with SCI.

The prevalence of Peyronie's disease in diabetic patients with erectile dysfunction.

Arafa M, Eid H, El-Badry A, Ezz-Eldine K, Shamloul R.

Department of Andrology & Sexology, Cairo University, Cairo, Egypt

Abstract

We attempted in this study to investigate the prevalence of Peyronie's disease (PD) among diabetic patients with erectile dysfunction (ED). Two-hundred and six diabetic patients were further evaluated in this study. Forty-two (20.3%) patients had PD. There were significant associations between PD and risk factors of age, obesity and smoking. All patients with PD had also ED. Penile curvature was present in 82.1% of all patients with PD. Of the patients with PD, 25.4% had pain with or without erection. Significant associations between PD and ED and ED duration were detected. This study confirmed the high prevalence of PD among diabetic patients with ED. Further work is needed probing the mechanisms through which diabetes affects the pathogenesis of ED and PD.

Involvement of alpha-receptors and potassium channels in the mechanism of action of sildenafil citrate.

El-Metwally MA, Sharabi FM, Daabees TT, Senbel AM, Mostafa T.

Department of Pharmacology, Faculty of Pharmacy, University of Alexandria, Alexandria, Egypt
Department of Andrology & Sexology, Faculty of Medicine, Cairo University, Cairo, Egypt

Abstract

Modulation of the adrenergic activity and interfering with channels such as potassium channels may affect relaxation and contraction of the corpus cavernosum. Sildenafil is a selective phosphodiesterase-5 inhibitor, proven effective in treating erectile dysfunction. In this study, the effect of sildenafil citrate on alpha-receptors modulation and potassium channels was tested. The direct relaxant effect of sildenafil citrate was studied by measuring changes in isometric tension in isolated strips of rabbit corpus cavernosum and rat aortic ring precontracted with phenylephrine or KCl compared to that of diazoxide in the presence and absence of tetraethylammonium. The inhibitory effect of sildenafil on electrical field stimulation-induced contraction of rabbit corpus cavernosum and rat anococcygeus muscle was also studied compared to that of phentolamine. Muscle relaxant effect of sildenafil (1×10^{-9} - 1×10^{-6} M) on phenylephrine-precontracted rabbit corpus cavernosum strips was not attenuated by N(G)-nitro-L-arginine (3×10^{-5} M). Cumulative addition of sildenafil (1×10^{-9} - 1×10^{-6} M) and phentolamine (1×10^{-9} - 1×10^{-6} M) to the organ bath dose-dependently inhibited electrical field stimulation-induced contraction of rabbit corpus cavernosum and rat anococcygeus muscle, with almost similar EC(50) values. Sildenafil (1×10^{-7} M) also inhibited phenylephrine-induced contraction of rat aortic rings by 39.83 \pm 3.01%. In addition, tetraethylammonium (1×10^{-3} M) significantly attenuated the muscle relaxant effect of sildenafil (1×10^{-9} - 1×10^{-6} M) on phenylephrine-precontracted strips of rabbit corpus cavernosum. Sildenafil citrate is capable of producing cavernosal smooth muscle relaxation by an additional mechanism that may involve alpha-receptors and potassium channel opening.

Repeated intracorporeal self-injection: effect on peak systolic velocity and cavernosal artery diameter.

Awad H, El-Karaksy A, Mostafa T, Abbas M, Kamel II, Arafa M, Zeidan A.
Department of Andrology & Sexology, Faculty of Medicine, Cairo University, Cairo, Egypt

Abstract

This work is aimed at evaluating the effect of repeated intracavernosal injection (ICI) self-injection on the peak systolic velocity (PSV) and the diameter of cavernosal arteries. Sixty erectile dysfunction (ED) patients who were positive responders for ICI therapy were studied. Pharmacopenile duplex ultrasonography (PPDU) was carried out before starting ICI and after 10 doses of home therapy in an open-label uncontrolled study. There was significant increase in the cavernosal artery diameter and their PSV before and after injection. Cavernosal arteries diameter before injection in both right and left sides was 0.64 ± 0.13 and 0.63 ± 0.12 mm at the start and became 0.81 ± 0.22 and 0.79 ± 0.22 mm respectively at the end with significant differences ($P<0.001$). Cavernosal arteries diameter after injection in both right and left sides was 1.10 ± 0.18 and 1.09 ± 0.19 mm at the start and became 1.34 ± 0.39 and 1.27 ± 0.33 mm respectively at the end with significant differences ($P<0.001$). PSV at the start was 33.77 ± 13.26 and 32.33 ± 8.09 cm/s on both right and left sides and became 44.4 ± 1.19 and 46.1 ± 5.86 cm/s respectively at the end with significant differences ($P<0.001$). It is concluded that repeated ICI improves arterial erectile response with associated increase in PSV and cavernosal artery diameters.

Treatment of submucous cleft palate by pharyngeal flap as a primary procedure.

Abdel-Aziz M.

ENT Department, Cairo University, Cairo, Egypt

Abstract

OBJECTIVE: (a) Palatal repair is the standard surgical method for correction of velopharyngeal incompetence due to submucous cleft, but some patients may need further narrowing of velopharynx by pharyngeal flap. (b) The purpose of this study is to evaluate the efficacy of a pharyngeal flap as a single surgical procedure in the treatment of symptomatic cases. **METHODS:** Nine cases of symptomatic submucous cleft palate were subjected to treatment by pharyngeal flap only as a primary and single procedure after failure of speech therapy. Preoperative flexible nasopharyngoscopy was carried out for all children to determine the width of the velopharyngeal gap; the results were recorded on videotape and reviewed in the operating theatre for determination of the width of the pharyngeal flap. Postoperative follow-up by flexible nasopharyngoscopy and parent's questionnaire were used to assess the success rate. **RESULTS:** Follow-up flexible nasopharyngoscopy showed complete closure of the lateral ports in eight cases (89%) while one case (11%) showed incompetence. Hypernasality was improved in all cases witnessed by parent's questionnaire and this improvement was satisfactory in seven cases (78%) but not satisfactory in two cases (22%). One of the last two cases reached to satisfactory level after speech therapy, while the other case showed no further improvement. **CONCLUSIONS:** Speech therapy alone cannot correct hypernasality in presence of anatomical defect. Pharyngeal flap is a useful procedure monitored by flexible nasopharyngoscopy. When pharyngeal flap is used, the need for adjunctive procedure is absent.

Radical cystectomy with preservation of sexual function and fertility in patients with transitional cell carcinoma of the bladder: new technique

Salem HK

Urosurgery Department, Faculty of Medicine, Cairo University, Cairo, Egypt

Abstract

OBJECTIVES: Radical cystectomy is the standard treatment for patients with invasive bladder carcinoma. Preservation of sexual function and fertility are important for surgery acceptance in young patients with this disease, and part of the prostate is generally preserved for this reason; however, this may compromise the radical nature of the surgery. Herein a novel technique of radical cystectomy with preservation of the vas deferens only is described aimed at preservation of sexual function and better cancer control. **METHODS:** Between March 2002 and February 2004, four potent male patients with muscle invasive transitional cell carcinoma of the bladder underwent nerve-sparing radical cystectomy with urinary diversion. The bladder, prostate with prostatic urethra, regional lymph nodes and seminal vesicles were removed while the vas deferens was preserved until its terminal end and anastomosed (in the perineum) to the bulbar urethra (end to side). The diversion was ureterocolic in three patients and ileal conduit in one patient. The median age of the patients was 45.0 years (range 35-55). The mean follow-up was 35.5 months (range 23-46 months). **RESULTS:** There was no mortality. All patients were free of the disease (no local or distant recurrence) at the last follow-up. All patients reported adequate sexual function with normal erections and satisfactory intercourse similar to that reported before surgery. Two patients maintained antegrade ejaculation allowing procreation in one case. **CONCLUSION:** This technique allows preservation of sexual function in nearly all cases with better oncological outcome than any other techniques of radical cystectomy aimed at preservation of sexual function.

Significance of phentolamine redosing during prostaglandin E1 penile color Doppler ultrasonography in diagnosis of vascular erectile dysfunction

Arafa M, Eid H, Shamloul R.

Abstract

Recently, it was reported that phentolamine redosing during penile duplex can abolish a false diagnosis of venous leakage in patients with impotence. The aim of this study is to identify any useful role of phentolamine redosing in diagnosis of venogenic impotence. Sixty-seven consecutive patients complaining of weak erection for at least 6 months were included in this study. Penile color Doppler ultrasound (CDU) was performed using a 7.5 MHz linear array transducer with a color flow mapping capability. Following intracavernous injection of 20 microg prostaglandin E1 (PGE1), all patients with persistent end diastolic velocity (EDV) >5 cm/sec with an erectile response of E3 or lower, 20 min after intracavernosal injection of PGE1, were asked to revisit our clinic for a second CDU, 2 weeks later. During initial CDU examination, all 67 patients experienced poor response to 20 microg PGE1 with their average peak systolic velocity (PSV) and EDV being 42.8 and 6.6 cm/sec, respectively. The second CDU examination had similar results to the first one. Addition of 2 mg phentolamine did not significantly change the PSV and EDV of cavernosal arteries in any of the 67 patients. In conclusion, addition of intracavernous phentolamine during PGE1 CDU examination carries no advantage over the use of PGE1 alone regarding cavernosal artery response in patients with suspected venogenic EDV.

**Role of sacral ligament clamp in the pudendal neuropathy (pudendal canal syndrome):
results of clamp release.**

Shafik A, El Sibai O, Shafik IA, Shafik AA.

Department of Surgery and Experimental Research, Faculty of Medicine, Cairo University, Cairo,
Egypt

Abstract

Pudendal canal syndrome (PCS) is treated by pudendal canal (PC) decompression. We studied the hypothesis that failure of PCD to relieve anal and perianal pain could result from compression of the pudendal nerve (PN) not only in the PC but also in the sacral ligament clamp (SLC), i.e., in the space between sacrotuberous and sacrospinous ligaments. SLC release was performed in 21 patients with proctalgia who had not improved after PCD. PN terminal motor latency was higher than normal. The SLC release operation comprised entering the ischiorectal fossa through a para-anal incision, identifying the PN, and division of sacrospinous ligament. Treatment was successful in 17 patients and failed in 4. The former showed pain disappearance and improvement in fecal incontinence, perianal sensation, and anal reflex. Clinical manifestations and investigative results improved after SLC release in 80.9% of the cases. We assume that these results denote traumatization of the PN not only in the PC but also in the SLC.

64. *Int Urogynecol J Pelvic Floor Dysfunct.* 2007 Aug;18(8):851-6. IF: 1,828

Physioanatomical relationship of the external anal sphincter to the bulbo-cavernosus muscle in the female.

Shafik A, Shafik IA, El-Sibai O, Shafik AA.

Department of Surgery and Experimental Research, Faculty of Medicine, Cairo University, Cairo, Egypt

Abstract

Both external anal sphincter (EAS) and bulbocavernosus muscle (BCM) have been shown anatomically and physiologically to constitute one muscle in males. We investigated the hypothesis that the EAS and BCM have similar anatomical pattern in females. The study consisted of cadaveric dissection, electromyographic recordings and inferior rectal nerve stimulation. Bulbocavernosus reflex action was performed in 16 healthy women before and after anesthetization of the EAS and BCM. The EAS extended forward across the perineal body and became continuous with the BCM in the labia majora. Glans clitoridis (GC) or inferior rectal nerve stimulation effected synchronous EAS and BCM contractions with identical action potentials. GC stimulation while the EAS or BCM was anesthetized produced neither EAS nor BCM response. Similarly, stimulation of the anesthetized GC produced no EAS or BCM response. The BCM and EAS apparently constitute a single muscle, which seems to play dual and yet synchronous roles in fecal control and sexual response.

The effect of external urethral sphincter contraction on the cavernosus muscles and its role in the sexual act.

Shafik A, Shafik IA, Sibai OE, Shafik AA.

Department of Surgery and Experimental Research, Faculty of Medicine, Cairo University, Cairo, Egypt

Abstract

OBJECTIVES/AIM: A study of the effect of external urethral sphincter contraction on ischio-/bulbo-cavernosus muscles could not be traced in the literature. We investigated the hypothesis that external urethral sphincter contraction induces cavernosus muscles' contraction. **METHODS:** Twenty-one healthy volunteers (age 37.6 +/- 9.7 SD years, 12 men, nine women) were studied. The electromyographic response of the ischio- and bulbo-cavernosus muscles to external urethral sphincter stimulation was recorded before and after anesthetization of the external urethral sphincter, and the ischio- and bulbo-cavernosus muscles; the response was also recorded using normal saline instead of lidocaine. **RESULTS:** Upon external urethral sphincter stimulation (five square pulses, 1 ms duration, 53.8 +/- 10.2 mA threshold), both cavernosus muscles exhibited increased electromyographic activity with a mean amplitude of 386.2 +/- 44.9 microV for the ischio-cavernosus and 318.4 +/- 36.6 microV for the bulbo-cavernosus muscle. The mean latency read 16.8 +/- 1.3 ms for the ischio-cavernosus muscle and 15.7 +/- 1.2 ms for the bulbo-cavernosus muscle. Neither the ischio- nor the bulbo-cavernosus muscle responded to stimulation of the anesthetized external urethral sphincter, but both responded after saline administration. Likewise, the anesthetized ischio- and bulbo-cavernosus muscles showed no response to external urethral sphincter stimulation but responded after saline had been injected. **CONCLUSIONS:** Increased electromyographic activity of the two cavernosus muscles on external urethral sphincter stimulation presumably denotes contraction of these two muscles and that this action is probably reflex, mediated through the 'sphinctero-cavernosus-reflex'. Cavernosus muscles' contraction assists in the erectile and ejaculatory mechanisms. It is suggested that this reflex be included as an investigative tool in the diagnosis of erectile and ejaculatory disorders, provided further studies are performed.

Modified extravesical ureteral reimplantation technique for kidney transplants

Abou-Elela A, Morsy A, Reyad I, Torkey M, Meshref A, Barsoum R.
Department of Urology and Nephrology, Cairo University, Cairo, Egypt

Abstract

PURPOSE: We challenge the requirement for routine placement of a nephrostomy tube after percutaneous renal surgery, assessing the outcome, safety, and efficacy of tubeless procedures. **PATIENTS AND METHODS:** A total of 128 patients underwent tubeless percutaneous renal surgery from May 2001 to May 2004: stone extraction in 120 patients and endopyelotomy +/- stone extraction in 8. The stone sizes ranged from 2 to 7 cm with a mean of 4.1 cm. An external ureteral catheter was used in 120 patients and was removed after 24 hours if a retrograde study revealed no extravasation. An antegrade Double-J stent was used in 8 patients and removed 4 to 6 weeks postoperatively. Among the 128 patients treated by the tubeless technique, we met situations that mandated insertion of a nephrostomy tube in 18. **RESULTS:** The stone free-rate was 90.4%. The mean hospital stay was 1.7 days. The incidence of significant intraoperative bleeding was 1.5% and that of significant postoperative hematuria was 4.6%. Postoperative sonography revealed a small perirenal collection (<50 mL) in 10 patients (7.8%) and significant perirenal collections (100-250 mL) in 3 (2.3%). The postoperative retrograde study revealed minor extravasation in 14 patients (12%) and significant extravasation in 3 (2.3%) **CONCLUSION:** Tubeless percutaneous renal surgery with an externalized ureteral catheter is a safe procedure that is suitable for any patient who can be rendered stone free with a single procedure regardless of the initial stone burden.

67. **Interact Cardiovasc Thorac Surg.** 2007 Aug;6(4):455.

ICVTS on-line discussion B. And what about skills upgrading?

Aboul-Azm AN.

Department of Cardiothoracic Surgery, faculty of Medicine, Cairo University, Cairo, Egypt

Pulmonary vein antral isolation using an open irrigation ablation catheter for the treatment of atrial fibrillation: a randomized pilot study

Kanj MH, Wazni O, Fahmy T, Thal S, Patel D, Elay C, Di Biase L, Arruda M, Saliba W, Schweikert RA, Cummings JE, Burkhardt JD, Martin DO, Pelargonio G, Dello Russo A, Casella M, Santarelli P, Potenza D, Fanelli R, Massaro R, Forleo G, Natale A.

Section of Cardiac Electrophysiology and Pacing, Department of Cardiovascular Medicine, Cleveland Clinic, Cleveland, Ohio, USA.

Critical Care Unit, Faculty of Medicine, Cairo University, Cairo, Egypt.

Abstract

OBJECTIVES: We sought to test how catheter ablation using an open irrigation catheter (OIC) compares with standard catheters for pulmonary vein antrum isolation. **BACKGROUND:** Open irrigation catheters have the advantage of delivering greater power without increasing the temperature of the catheter tip, which enables deeper and wider lesions without the formation of coagulum on catheters. **METHODS:** Catheter ablation was performed using an 8-mm catheter (8MC) or an OIC. Patients were randomized to 3 groups: 8MC; OIC-1, OIC with a higher peak power (50 W); and OIC-2, OIC with lower peak power (35 W). **RESULTS:** A total of 180 patients were randomized to the 3 treatment strategies. Isolation of pulmonary vein antra was achieved in all patients. The freedom from atrial fibrillation was significantly greater in the 8MC and OIC-1 groups compared with the OIC-2 group (78%, 82%, and 68%, respectively, $p = 0.043$). Fluoroscopy time was lower in OIC-1 compared with OIC-2 and 8MC (28 +/- 1 min, 53 +/- 2 min, and 46 +/- 2 min, respectively, $p = 0.001$). The mean left atrium instrumentation time was lower in the OIC-1 compared with the OIC-2 and 8MC groups (59 +/- 3 min, 90 +/- 5 min, and 88 +/- 4 min, respectively, $p = 0.001$). However, there was a greater incidence of "pops" in the OIC-1 (100%, 0%, 0%, $p < 0.001$) along with higher incidences of pericardial effusion (20%, 0%, 0%, $p < 0.001$) and gastrointestinal complaints (17% in OIC-1, 3% in 8MC, and 5% in OIC-2, $p = 0.031$). **CONCLUSIONS:** Although there was a decrease in fluoroscopy and left atrium instrumentation time with the use of OIC at higher power, this setting was associated with increased cardiovascular and gastrointestinal complications.

Remote magnetic navigation: human experience in pulmonary vein ablation

Di Biase L, Fahmy TS, Patel D, Bai R, Civello K, Wazni OM, Kanj M, Elayi CS, Ching CK, Khan M, Popova L, Schweikert RA, Cummings JE, Burkhardt JD, Martin DO, Bhargava M, Dresing T, Saliba W, Arruda M, Natale A.

Section of Cardiac Electrophysiology and Pacing, Department of Cardiovascular Medicine, Cleveland Clinic, Cleveland, Ohio, USA.

Critical Care Unit, Faculty of Medicine, Cairo University, Cairo, Egypt.

Abstract

OBJECTIVES: We aimed at assessing the feasibility and efficacy of remote magnetic navigation (MN) and ablation in patients with atrial fibrillation (AF). **BACKGROUND:** This novel MN system could facilitate standardization of the procedures, reducing the importance of the operator skill. **METHODS:** After becoming familiar with the system in 48 previous patients, 45 consecutive patients with AF were considered for ablation using the Niobe II remote magnetic system (Stereotaxis, St. Louis, Missouri) in a stepwise approach: circumferential pulmonary vein ablation (CPVA), pulmonary vein antrum isolation (PVAI), and, if failed, PVAI using the conventional approach. Remote navigation was done using the coordinate or the wand approach. Ablation end point was electrical disconnection of the pulmonary veins (PVs). **RESULTS:** Using the coordinate approach, the target location was reached in only 60% of the sites, whereas by using the wand approach 100% of the sites could be reached. After step 2 ablation, only 1 PV in 4 patients (8%) could be electrically isolated. Charring on the ablation catheter tip was seen in 15 (33%) of the cases. In 23 patients, all PVs were isolated with the conventional thermocool catheter, and in 22 patients only the right PVs were isolated with the conventional catheter. After a mean follow-up period of 11 +/- 2 months, recurrence was seen in 5 patients (22%) with complete PVAI and in 20 patients (90%) with incomplete PVAI. **CONCLUSIONS:** Remote navigation using a magnetic system is a feasible technique. With the present catheter technology, effective lesions cannot be achieved in most cases. This appears to impact the cure rate of AF patients.

The response of the corporal tissue and cavernosus muscles to urethral stimulation: an effect of penile buffeting of the vaginal introitus.

Shafik A, Shafik AA, El Sibai O, Shafik IA.

Department of Surgery and Experimental Research, Faculty of Medicine, Cairo University, Cairo, Egypt

Abstract

We investigated the hypothesis that urethral stimulation in humans induces sexual response in the form of activation of the corporal tissue and cavernosus muscles through a reflex mechanism. Electromyographic activity of corpora cavernosa (CC), corpus spongiosum (CS), bulbocavernosus (BCM), and ischiocavernosus (ICM) muscles was recorded in 43 healthy volunteers (24 men, 19 women; age, 37.7 +/- 8.2 years) during urethral stimulation. The tests were repeated after individual anesthetization of urethra, CC, CS, BCM, and ICM. During stimulation of the distal urethra, slow wave variables of CC and CS decreased while motor unit action potentials of BCM and ICM increased. Urethral stimulation after individual anesthetization of urethra, CC, CS, BCM, and ICM did not affect significant changes in these structures, but saline administration did. Diminished electromyographic activity of CC and CS with increased activity of BCM and ICM during distal urethral stimulation presumably denotes sinusoidal muscle relaxation of CC and CS and cavernosus muscles' contraction. Sinusoidal muscle relaxation and contraction of cavernosus muscles upon distal urethral stimulation are suggested to be mediated through a reflex that we call the "urethro-corporocavernosal reflex." Sinusoidal and cavernosus muscles' response during coitus appears to affect a degree of tumescence for both male and female partners.

71. **J Bronchol.** 2007; 14 (2) April 2007.

Flexible bronchoscopy for the retrieval of aspirated metallic pins A case series

Al-Halfawy A

Pulmonary Medicine Department, Faculty of Medicine, Cairo University, Cairo, Egypt

Electrical isolation of the superior vena cava: an adjunctive strategy to pulmonary vein antrum isolation improving the outcome of AF ablation.

Arruda M, Mlcochova H, Prasad SK, Kilicaslan F, Saliba W, Patel D, Fahmy T, Morales LS, Schweikert R, Martin D, Burkhardt D, Cummings J, Bhargava M, Dresing T, Wazni O, Kanj M, Natale A.

Section of Cardiac Electrophysiology and Pacing, Department of Cardiovascular Medicine, Cleveland Clinic, Cleveland, Ohio, USA.

Critical Care Unit, Faculty of Medicine, Cairo University, Cairo, Egypt.

Abstract

PV isolation at the antrum (PVAI) has improved safety and efficacy of ablation procedures for atrial fibrillation (AF). AF triggers from the superior vena cava (SVC) may compromise the outcome of PVAI. **PURPOSE:** We evaluated the (1) incidence of SVC triggers, (2) feasibility of empiric SVC electrical isolation (SVCI) as an adjunct to PVAI, and (3) SVCI safety. **METHODS AND RESULTS:** Of 190 patients (group I), 24 (12%) showed SVC triggers. Following PVAI, seven patients had AT originating from the SVC and three had AF. After SVCI, all 24 patients were arrhythmia-free 450 +/- 180 days post procedure. In the subsequent 217 patients (group II), empirical SVCI was performed following PVAI. Sixty-six of all 407 patients (16%) experienced recurrence of AF. A repeat procedure in 25 of the 66 patients showed that five (20%) had AF recurrence initiated by SVC triggers, of whom four were among group I patients (4/190; 2%) and one was from group II (1/217; 0.4%), ($P < 0.05$). Transient diaphragmatic paralysis can be avoided by pacing at the lateral aspect of the SVC using high output (30 mA). There was no SVC stenosis on CT scans before or 3 months after the procedure. There was no sinus node injury. **CONCLUSIONS:** The SVC harbors the majority of non-PV triggers of AF. SVCI is feasible, safe, and may be considered as an adjunctive strategy to PVAI for ablation of AF. The long-term favorable outcome of this hybrid approach remains to be evaluated in a larger series of patients.

Efficacy of adjuvant anterior left atrial ablation during intracardiac echocardiography - guided pulmonary vein antrum isolation for atrial fibrillation.

Verma A, Patel D, Famy T, Martin DO, Burkhardt JD, Elayi SC, Lakkireddy D, Wazni O, Cummings J, Schweikert RA, Saliba W, Tchou PJ, Natale A.
Southlake Regional Health Centre, Newmarket, Ontario, Canada.
Critical Care Unit, Faculty of Medicine, Cairo University, Cairo, Egypt.

Abstract

BACKGROUND: Recent data have shown that the septum and anterior left atrial (LA) wall may contain "rotor" sites required for AF maintenance. However, whether adding ablation of such sites to standard ICE-guided PVAI improves outcome is not well known. **OBJECTIVE:** To determine if adjuvant anterior LA ablation during PVAI improves the cure rate of paroxysmal and permanent AF. **METHODS:** One hundred AF patients (60 paroxysmal, 40 persistent/permanent) undergoing first-time PVAI were enrolled over three months to receive adjuvant anterior LA ablation (Group I). These patients were compared with 100 randomly selected, matched first-time PVAI controls from the preceding three months who did not receive adjuvant ablation (Group II). All 200 patients underwent ICE-guided PVAI during which all four PV antra and SVC were isolated. In group I, a decapolar lasso catheter was used to map the septum and anterior LA wall during AF (induced or spontaneous) for continuous high-frequency, fractionated electrograms (CFAE). Sites where CFAE were identified were ablated until the local EGM was eliminated. A complete anterior line of block was not a requisite endpoint. Patients were followed up for 12 months. Recurrence was assessed post-PVAI by symptoms, clinic visits, and Holter at 3, 6, and 12 months. Patients also wore rhythm transmitters for the first 3 months. Recurrence was any AF/AFL >1 min occurring >2 months post-PVAI. **RESULTS:** Patients (age 56 +/- 11 years, 37% female, EF 53% +/- 11%) did not differ in baseline characteristics between group I and II by design. Group I patients had longer procedure time (188 +/- 45 min vs 162 +/- 37 min) and RF duration (57 +/- 12 min vs 44 +/- 20 min) than group II ($P < 0.05$ for both). Overall recurrence occurred in 15/100 (15%) in group I and 20/100 (20%) in group II ($P = 0.054$). Success rates did not differ for paroxysmal patients between group I and II (87% vs 85%, respectively). However, for persistent/permanent patients, group I had a higher success rate compared with group II (82% vs 72%, $P = 0.047$). **CONCLUSIONS:** Adjuvant anterior LA ablation does not appear to impact procedural outcome in patients with paroxysmal AF but may offer benefit to patients with persistent/permanent AF.

Intracardiac echo-guided image integration: optimizing strategies for registration.

Fahmy TS, Mlcochova H, Wazni OM, Patel D, Cihak R, Kanj M, Beheiry S, Burkhardt JD, Dresing T, Hao S, Tchou P, Kautzner J, Schweikert RA, Arruda M, Saliba W, Natale A.

Section of Cardiac Electrophysiology and Pacing, Department of Cardiovascular Medicine, Cleveland Clinic, Cleveland, Ohio, USA.

Critical Care Unit, Faculty of Medicine, Cairo University, Cairo, Egypt.

Abstract

INTRODUCTION: Image integration is being used in ablation procedures. However, the success of this approach is dependent on the accuracy of the image integration process. This study aims to evaluate the in vivo accuracy and reliability of the integrated image. **METHODS AND RESULTS:** One hundred twenty-four patients undergoing radiofrequency (RF) ablation catheter ablation for atrial fibrillation (AF) were recruited for this study from three different centers. Cardiac computerized tomography (CT) was performed in all patients and a 3D image of the left atrium (LA) and pulmonary veins (PVs) was extracted for registration after segmentation using a software program (CartoMerge, Biosense Webster, Inc.). Different landmarks were selected for registration and compared. Surface registration was then done and the impact on integration and the landmarks was evaluated. The best landmark registration was achieved when the posterior points on the pulmonary veins were selected (5.6 +/- 3.2). Landmarks taken on the anterior wall, left atrial appendage (LAA) or the coronary sinus (CS) resulted in a larger registration error (9.1 +/- 2.5). The mean error for surface registration was 2.17 +/- 1.65. However, surface registration resulted in shifting of the initially registered landmark points leading to a larger error (from 5.6 +/- 3.2 to 9.2 +/- 2.1; 95% CI 4.2-3.05). **CONCLUSION:** Posterior wall landmarks at the PV-LA junction are the most accurate landmarks for image integration in respect to the target ablation area. The concurrent use of the present surface registration algorithm may result in shifting of the initial landmarks with loss of their initial correlation with the area of interest.

Subconjunctival bevacizumab for vascularized rejected corneal grafts

Awadein A.

Department of Ophthalmology, Faculty of Medicine, Cairo University,
Cairo, Egypt.

Abstract

We describe 3 patients who experienced corneal neovascularization following keratoplasty and were treated with a single subconjunctival injection of 2.5 mg bevacizumab. Although there was immediate regression of the corneal vascularization and haze, as well as improvement in the anterior chamber reaction, the effects were short-lived and starting from the second week, the corneal vessels began to progress. All 3 cases ended in permanent graft failure. The series suggests a possible role for bevacizumab in the management of graft rejection with vascularization.

76. **J Clin Endocrinol Metab.** 2007 Aug;92(8):2882-4.

IF: **5,799**

Editorial: Preventing ovarian hyperstimulation syndrome.

Aboulghar MA.

Gynecology & Obstetrics Department, Faculty of Medicine, Cairo University, Cairo, Egypt.

Factors affecting platelet yield and their impact on the platelet increment of patients receiving single donor PLT transfusion

Enein AA, Hussein EA, El Shafie S, Hallouda M.

Department of Hematology, Faculty of Medicine, Cairo University,
Cairo, Egypt

Abstract

The aim of this study was to analyze the impact of various donor and machine parameters on PLT yield in 127 PLT apheresis procedures, to optimize PLT yield achieving clinical and economic advantages. One hundred and twenty-seven apheresis procedures were analyzed. Age, gender, volume processed, Hb, and PLT precounts were included as donor predicting variables. AC infusion rate, processing time, and plasma volume collected with PLTs were assessed as machine parameters. We evaluated the post-transfusion effectiveness in 23 patients with thrombocytopenia, studying the effect of PLT dose, ABO group, and PLT storage time. Females gave higher yields, compared to males, $P < 0.01$. PLT yield correlated positively with PLT precount ($r = 0.512$), and TBV ($r = 0.404$), and negatively with donor preapheresis Hb ($r = -0.306$). Processing time and AC infusion rate had a positive impact on PLT yield. Post-apheresis decrease in PLT count was $53.6 \pm 26.3 \times 10^{11}$. Donors with $Hb \geq 12$ g/dl, donated safely. Most of the complications were citrate related (13.4% of all procedures). PLT increments in transfused patients correlated positively with the number of units transfused ($r = 0.41$), and negatively with PLT storage days ($r = -0.342$). PLT increments in patients receiving ABO-compatible PLTs were 75% higher, compared to the increments in patients receiving incompatible PLTs. PLT count and volume processed were the main predictors of PLT yield. Increasing the processing time, the AC infusion rate, or the volume of plasma obtained with PLTs can increase PLT yields. High PLT dose, short storage time, as well as ABO compatibility should be considered during PLT transfusion.

78. *J Cosmet Dermatol.* 2007 Jun;6(2):89-94.

Combined trichloroacetic acid peel and topical ascorbic acid versus trichloroacetic acid peel alone in the treatment of melasma: a comparative study.

Soliman MM, Ramadan SA, Bassiouny DA, Abdelmalek M.
Department of Dermatology, Faculty of Medicine, Cairo University,
Cairo, Egypt.

Abstract

BACKGROUND: Melasma is a common acquired hypermelanosis that is difficult to treat. Several chemical peeling agents were used in treatment of melasma. Topical vitamin C was also used with minimal side effects. **AIM:** To compare the effect of 20% trichloroacetic acid (TCA) peel alone vs. 20% TCA peel combined with topical 5% ascorbic acid in cases of epidermal melasma. **PATIENTS AND METHODS:** Thirty women with bilateral epidermal melasma (Fitzpatrick skin types III and IV) were divided into two groups (A and B, 15 patients each). Before therapy, digital photography and a melasma area and severity index (MASI) score were done for each patient. Groups A and B were primed for 2 weeks before TCA peel. Group B also applied 5% ascorbic acid topically once daily; 20% TCA peel was done for all patients weekly until clearance of melasma or for a maximum of six peels. Group B continued to use 5% ascorbic acid topically in between peels and during the 16-week follow-up period. Patients were assessed at the end of peeling sessions and at the end of follow-up by photography, MASI score, and a global evaluation by the patient. **RESULTS:** Group B compared with group A showed a significant decrease in MASI score at the end of TCA peels ($P < 0.001$) and at the end of the 16-week follow-up period ($P < 0.003$). Global evaluation showed that 13 patients (87%) in group B improved or maintained their improvement compared with only 10 patients (67%) in group A. **CONCLUSION:** Topical ascorbic acid combined with 20% TCA peel in melasma improves the results and helps in maintaining the response to therapy.

79. **J Egypt Soc Parasitol.** 2007 Dec; 37(3):977-88.

Antibody isotypes in urethral swabs of symptomatic and asymptomatic men infected with *Trichomonas vaginalis*

Imam NF, Eassa AH, Shoeib EY, Abo-Raia GY.

Department of Parasitology, Faculty of Medicine, Cairo University,
Cairo, Egypt

Abstract

Trichomoniasis may be asymptomatic or symptomatic in both sexes. The outcome of infection depends on the virulence factors of *T. vaginalis*, but these factors remain unclear. Genetic variability of the isolates and the host's immune response are likely to be key factors in that respect. Symptomatic and asymptomatic males infected with *T. vaginalis* were compared regarding the differences in antibody subclasses response in the urethral samples. In symptomatic cases there was a significant elevation in IgM, IgG1 & IgG2b levels in urethral samples, and a little, non-significant rise in IgG2a levels. However, there were no statistically significant differences between levels of IgA, IgG3 & IgG4. The results showed that specific IgG1 & IgM and to a lesser extent IgG2 may be involved in established symptomatic trichomoniasis in men, compared to asymptomatic ones.

80. **J Egypt Soc Parasitol.** 2007 Aug; 37(2):681-8.

Human hydatidosis granulosis in greater Cairo, Egypt: with general review.

Ibrahim BB, Haridy FM, Hegazi MM, Morsy TA.

Department of Pathology and Parasitology, Faculty of Medicine, Cairo University, Egypt

Abstract

In this study, human cases (41) of proved hydatidosis granulosis were obtained from Al Kasr Al Aini University Hospitals from 2000-2006. They were 22 females with ages from 8 to 70 years and 19 males with ages from 5 to 75 years. The highly infected organ was the liver. Infection in other organs as lung, spleen, brain, eye, pelvic and bones of upper and lower limbs were reported. Most of the hydatidosis patients were from governorates of Giza (24 cases), Qalyobia (7 cases), Cairo (5 cases), Bani-Swef (3 cases), Sharkia (1 case) and Demiatta (1 case). Biopsies of infected liver and lung were processed for the histopathological studies and photographed. The results were discussed on the light of work done before Egypt.

81. **J Egypt Soc Parasitol.** 2007 Aug;37(2):631-40.

The surface ultrastructure of the Egyptian liver fluke *Fasciola gigantica*.

Mahmoud LH, Hegazi MA.

Department of Parasitology, Faculty of Medicine, Cairo University,
Cairo, Egypt

Abstract

Scanning electron microscopy (SEM) of adult *Fasciola gigantica*, a known liver fluke in Egypt, shows the presence of tegumental spines and folds giving the appearance of a rough surface. The spines are small and closely-spaced anteriorly, increasing in size and number on the in the mid-lateral aspect of the ventral surface. Towards the posterior end the spines progressively decrease in both size and number. Tegumental transverse folds or invaginations are interspaced between the spines. There are two types of sensory papillae on the tegumental surface. The dorsal surface exhibits similar features but the spines and papillae are less numerous with less extensive surface folds than on the ventral surface of the body. The oral and ventral suckers, together with the excretory pore, appear spineless, bearing ciliate sensory papillae. Further studies should be directed at deciphering the genetic codes and the synthesis of some of these antigens by recombinant DNA technology to be used in serodiagnosis, vaccination and for drug receptors.

82. **J Egypt Soc Parasitol.** 2007 Aug;37(2):609-22.

Echinococcosis granulosus/hydatidosis an endemic zoonotic disease in Egypt

Elshazly AM, Awad SE, Hegazy MA, Mohammad KA, Morsy TA.

Departments of Parasitology, Faculty of Medicine, Mansoura & Cairo Universities, Egypt

Abstract

The hydatidosis patients were collected from Mansoura University's Hospitals and Dakahlia Public Health Hospitals. The patients were divided into three groups: GI: 74 patients with surgically confirmed cystic echinococcosis (CE), GII: 45 patients with other parasitic infections, GIII: 30 healthy parasite-free individuals. All were subjected to questionnaire and full clinical examination, imaging investigation, routine laboratory examination, and serum samples for antibody against CE by the specific ELISA. The hydatidosis was higher in females but without statistically significant difference ($p = 0.309$). There was no age predilection difference regarding hydatidosis infection. However, the hydatidosis granulosus was significantly higher in the shepherd followed by the farmers. All the questionnaires were positively correlated to hydatidosis infection except the availability of clean domestic water and personal knowledge about hydatidosis gave negative correlations. The ELISA-OD correlated positively with the imaging investigation (mainly U S stage). The sensitivity of ELISA was 86.7% and specificity was 81.4%. The results were evaluated regarding the local and regional data on echinococcosis/hydatidosis.

Safety and efficacy of tubeless percutaneous renal surgery

Abou-Elela A, Emran A, Mohsen MA, Reyad I, Bedair AS, Kader MA.
Department of Urology, Faculty of Medicine, Cairo University, Cairo, Egypt

Abstract

PURPOSE: We describe a modification and evaluate a technique of extravesical ureteral reimplantation for kidney transplant. **MATERIALS AND METHODS:** We reviewed the records of 120 kidney transplant recipients who underwent ureteral reimplantation via a modified extravesical technique. Follow-up evaluation included renal ultrasonography. Because reflux is not routinely assessed in transplant cases, only symptomatic reflux was considered a complication and accessed with voiding cystourethrography (VCUG). The urological complications evaluated included urinary fistula, ureteral stenosis and symptomatic vesicoureteral reflux. **RESULTS:** The modified extravesical technique produced a successful result in 93.4% of patients with no symptomatic reflux or anastomotic obstruction. Anastomotic complications included stenosis in four patients, prolonged leakage and fistula in three patients, and symptomatic vesicoureteral reflux in one patient. Other urologic complications included complicated hematuria in three patients, postoperative urosepsis in one patient, and ureteral stenosis caused by extrinsic compression in three patients due to lymphocele (two patients) and by adhesions (one patient). **CONCLUSIONS:** The modified extravesical ureteral reimplantation is a reliable procedure with predictable results comparable to those of more-traditional techniques and proved to be efficient without increasing the incidence of urological or anastomotic complications. This modified technique offers two advantages; removal of the ureteral stent with the urethral catheter without the need for a postoperative cystoscopy and facilitation of postoperative endoscopic maneuvers if needed.

Laparoscopic transperitoneal ureterolithotomy.

El-Feel A, Abouel-Fettouh H, Abdel-Hakim AM.

Department of Urology, Faculty of Medicine, Cairo University, Cairo, Egypt

Abstract

PURPOSE: To present our experience with laparoscopic ureterolithotomy as a potential alternative to open ureterolithotomy. **PATIENTS AND METHODS:** Between October 2003 and October 2005, a total of 27 laparoscopic ureterolithotomies were performed in 25 patients. The mean age of the patients was 39.8 +/- 17.5 years, and the mean body mass index (BMI) was 28.7 +/- 3.9 kg/m². The inclusion criteria were stone(s) in the middle or upper ureter not suitable for treatment with SWL or endoscopy. Bilateral stones, multiple stones at the same level, recurrent stones, or stones in duplex systems were not a contraindication. A transperitoneal approach was used. **RESULTS:** The mean operative time was 145 +/- 42 minutes. The mean blood loss was 62.5 +/- 23 mL with mean hemoglobin decline of 0.78 +/- 0.31 g/dL. Postoperative analgesia was a single dose of a non-steroidal anti-inflammatory drug on day 1. The mean postoperative hospital stay was 4.1 +/- 6.7 days. No evidence of backpressure changes or increase in the serum creatinine concentration was observed during the follow-up. Assessment of the BMI, level of the stone, and laterality showed no statistical impact on the mean operative time. **CONCLUSIONS:** Laparoscopic ureterolithotomy is technically feasible with the advantage of being minimally invasive and having lower postoperative morbidity.

Laparoscopic vesical diverticulectomy

Abdel-Hakim AM, El-Feel A, Abouel-Fettouh H, Saad I.

Department of Urology, Faculty of Medicine, Cairo University, Cairo, Egypt

Abstract

PURPOSE: We report our initial experience with 13 cases of laparoscopic vesical diverticulectomy done via an extravesical approach between November 2002 and October 2004. **PATIENTS AND METHODS:** All patients were male, with a mean age of 53 years and a mean body mass index of 26.2 kg/m². A transperitoneal approach was preferred. The diverticulum was of the primary type in three patients and of the secondary type resulting from benign prostatic hyperplasia in seven patients and a longstanding urethral stricture in three patients. **RESULTS:** The mean operative time was 265 minutes with a mean blood loss of <100 mL and a mean postoperative hemoglobin decline of 1.1 g/dL. The urethral catheter was removed on day 7 postoperatively in the patients with a primary diverticulum, whereas it was left for 11 to 14 days in patients with secondary bladder diverticula. Postoperative complications occurred in only one patient with a primary diverticulum, taking the form of extravasation from the suture line in the control gravity-fill cystogram that was done routinely prior to urethral-catheter removal. Leakage resolved with urethral catheterization for 2 more weeks. The postoperative stay was 3 to 4 days. **CONCLUSION:** Laparoscopic diverticulectomy is technically feasible and safe and may represent an alternative to the standard open procedure.

Electromyographic lag time and opening time: two novel noninvasive methods to investigate patients with anal outlet obstruction and their response to treatment.

Shafik A, Shafik IA, Shafik AA, Sibai OE.

Department of Surgery and Experimental Research, Faculty of Medicine, Cairo University, Cairo, Egypt.

Abstract

INTRODUCTION: The anterolateral abdominal wall muscles (AAWMs) are composed of the external and internal oblique, transversus abdominis, and the rectus abdominis muscles. **AIM:** We investigated the hypothesis that the AAWMs contract reflexly during ejaculation. **METHODS:** Effect of coitus on AAWMs was tested in 16 healthy men (mean age 37.2 +/- 9.7 years). The intra-abdominal pressure was measured by a manometric catheter introduced into the rectum. The response of the AAWMs to erection and ejaculation was recorded before and after penile and AAWMs' anesthetization by a needle electrode inserted into each of the muscles. **MAIN OUTCOME MEASURES:** Electromyographic (EMG) activity of AAWMs and rectal pressure increased at ejaculation. **RESULTS:** A few seconds before and during ejaculation, the rectal pressure and motor unit action potentials (EMG activity) of each of the AAWMs increased; this effect was abolished by anesthetization of the penis and AAWMs. **CONCLUSION:** Increased AAWMs' EMG denotes contraction of the said muscles. AAWMs' contraction at ejaculation, the resulting increase of the intra-abdominal pressure, and the presumably increased pelvic venous congestion seem to augment the penile venous congestion and rigidity. This effect is suggested to be mediated through a reflex which we call "ejaculation-abdominal wall reflex."

87. **J Leukoc Biol.** 2007 Nov;82(5):1033-9.

IF: 4,572

The role of B cells in the induction of peripheral T cell tolerance.

Ashour HM, Seif TM.

Department of Microbiology & Immunology, Faculty of Medicine,
Cairo University, Cairo, Egypt88. **J MED Sci.** 2007; 7(8): 1297-1303.

88. **J MED Sci.** 2007; 7(8): 1297-1303.

Role of intraoperative endoscopic sphenopalatine ganglion block in sinonasal surgery

Ahmed HM, Abu-Zaid EH

Department of Anesthesiology, Faculty of Medicine, Cairo University, Cairo, Egypt.

Identification of a vaginal pacemaker: An immunohistochemical and morphometric study

Shafik A, Shafik AA, Sibai OE, Shafik IA.

Department of Surgery and Experimental Research, Faculty of Medicine, Cairo University, Cairo, Egypt

Abstract

Vaginal electric waves spread caudally in the vagina. We investigated the hypothesis that electric waves originate from a centre of interstitial cells of Cajal (ICCs) in the proximal vagina. Specimens (0.75 x 0.75 cm) were obtained from the vaginal walls of 23 cadavers (age 38.2 +/- 10.2 years). Sections were prepared for immunohistochemical investigations using the specific ICC marker, C-kit. Morphometric studies for image analysis using a Leica imaging system were performed. C-kit positive cells were detected in vaginal smooth muscle. Results from image analyser revealed that mean area percent of positive immunoreactivity for C-kit in the upper part of posterior vaginal wall was significantly higher ($p < 0.0001$) than of areas in other vaginal walls, and also significantly higher ($p < 0.05$) in circular than in longitudinal muscle layer. Studies have shown that the greatest collection of ICCs occurred in the upper part of the posterior vaginal wall. The vaginal electric waves are suggested to originate from this 'centre' and spread caudally.

Role of transanal endorectal pull-through in complicated Hirschsprung's disease: experience in 18 patients.

Hadidi A, Bartoli F, Waag KL.

Pediatric Surgery Department, Faculty of Medicine, Cairo University,
Cairo, Egypt

Abstract

BACKGROUND/PURPOSE: In Hirschsprung's disease (HD) redo pull-through (PT) is indicated for anastomotic complications and for persistent aganglionosis after previous definitive surgery. This study was undertaken to evaluate the role of transanal approach to redo PT procedure in the management of complicated cases of HD over the last 7 years. **PATIENTS AND METHODS:** Between November 1998 and September 2005, 225 patients with HD were operated using the transanal endorectal PT (TEPT) approach. Eighteen patients had a redo PT owing to persistent aganglionosis. The present study evaluates the role of TEPT approach in patients with persistent aganglionosis (n = 18). Three patients needed a colostomy (n = 2) or ileostomy (n = 1) before the final operation. All the 18 patients underwent transanal mobilization (TEPT) of the colon. Six patients required additional mobilization of the proximal colon (n = 4) and the ileum (n = 2) during the redo PT operation. **RESULTS:** Median follow-up was 43 months (range, 3-72 months). Sixteen patients have had a good outcome with stool pattern 1 to 4 times daily. One patient had obstructive symptoms for 4 months postoperatively but then settled. One patient has occasional soiling. **CONCLUSIONS:** In this series, TEPT and posterior midline split of the muscle cuff were used with good results. This has the advantage of avoiding injury to the pelvic muscles and nerves. The TEPT approach is combined with transabdominal mobilization of the intestine depending on the length of the aganglionic segment. The outcome has been favorable, but long-term follow-up is necessary for full assessment of those patients.

91. **J Pediatr Urol** 2007; 3: 223-9.

**Management of high-grade renal injuries in children after blunt abdominal trauma:
Experience of 40 cases.**

Salem HK, Morsi H, Zakria A

Department of Urology, Faculty of Medicine, Cairo University, Cairo, Egypt

Abstract

Objective: We present our experience of management of high-grade renal trauma in a pediatric population, including assessment of the long-term function and morphology of the ipsilateral kidney.

Patients and methods: From 1997 to 2005, 40 children with high-grade renal injury (III, IV, V) after blunt abdominal trauma were managed. Initial evaluation included vital signs, color of urine, hemoglobin (Hb%), hematocrit, serum creatinine and computed tomography (CT). Follow up included vital signs, urine analysis, Hb%, CT, intravenous pyelogram and renogram.

Results: One patient needed superselective embolization due to continuing hemorrhage in spite of conservative treatment. Internal stenting plus percutaneous tube drain was indicated in three cases due to progressive extravasation. Exploration was indicated in four cases, one at presentation due to hemodynamic instability which ended in nephrectomy; the other three were successfully repaired. Conservative treatment was successful in 32 cases (80%). Blood transfusion was indicated in 16 cases (40%). Length of hospital stay was 4e20 days (mean 12.1). At the last follow up (range 1e8 years, mean 3.5), scars were detected in 10 cases, while all showed normal levels of Hb% and creatinine. No patient developed hypertension. Apart from in the nephrectomy case, the ipsilateral kidney showed split function of 40e50%.

Conclusion: After exclusion of hemodynamic instability and continuing hemorrhage, conservative treatment is successful in 80% of patients. Internal stenting with or without percutaneous drainage is indicated if there is progressive urinoma. Angioembolization is successful in selected cases.

92. **J Pediatr Urol.** 2007; 3: 235-8.

Tubeless percutaneous nephrolithotomy

Salem HK, Morsi H, El_Dao M

Department of Urology, Faculty of Medicine, Cairo University, Cairo, Egypt

Abstract

Objective: To assess the effectiveness of tubeless percutaneous nephrolithotomy (PCNL) as an alternative to extracorporeal shock-wave lithotripsy (ESWL) in the management of urolithiasis in children.

Materials and methods: In 2003-2005 we operated on 20 cases that met the inclusion criteria. Extensive follow-up tests were performed in all patients; stone clearance was defined as the absence of residual fragments on plain abdominal X-ray and renal ultrasound. Pain-scale ruler (0-10) was used to evaluate pain postoperatively. Comparison was made with a group of 10 patients with very similar criteria operated upon with PCN tube.

Results: Mean follow-up period was 9 months (3-18 months) and mean age 7.5 years (4-15 years). Mean operative time was 115 min (45-180) with no significant bleeding intra- or postoperatively. Conversion to open surgery was necessary in one case. There were no major perioperative complications. In the tubeless group the pain score was 3e6 (mean 4.6), there was no need for IV analgesia, and median hospital stay was 1.7 days (1-4 days); urine leakage occurred in one patient. In the group with PCN tube the pain score was 5e8 (mean 5.5), IV analgesia was mandatory in four patients, and median hospital stay was 2.8 days (3-4 days); urine leakage occurred in five patients and a small residual stone was detected in one child.

Conclusion: Tubeless PCNL in children has the advantages of being less painful, less troublesome and shortening the hospital stay of the child. The decision to use this procedure is best made intraoperatively and depends on the experience of the surgeon.

93. **J Sex Med.** 2007 Sep ; 4(5) : 1428-34.

IF: 4,676

Chronic lead exposure may be associated with erectile dysfunction.

**Anis TH, El-Karaksy A, Mostafa T, Gadalla A, Imam H,
O.**

Hamdy L, Abu el-Alla

Andrology & Sexology Department, Faculty of Medicine, Cairo University, Cairo, Egypt

Abstract

INTRODUCTION: Heavy metals constitute significant potential threats to human health in both occupational and environmental settings. Research examining the etiology of lead toxicity-induced hypertension reveals that the free radical production and lowering of inherent antioxidant reserves resulting from lead toxicity are directly related to vasoconstriction underlying lead-induced hypertension. A similar mechanism would affect smooth muscle relaxation in the cavernous tissue leading to erectile dysfunction (ED). **AIM:** Is to study the possible hazardous effect of chronic lead exposure on the erectile function, and to document the deposition of lead in the cavernous tissue. **METHODS:** The study group consisted of 34 men with ED, consecutively scheduled for penile implant insertion at Cairo University Hospital, as well as 15 controls. We determined the blood lead level for the two groups by the use of atomic absorption spectrophotometry. Sixteen of the 34 patients, and none of the 15 controls, had elevated lead serum levels (above 25 [g/dL]). **MAIN OUTCOME MEASURES:** We estimated the levels of two reactive oxygen species (ROS) and four antioxidants in peripheral blood for the two groups. At the time of penile implant insertion, we prepared cavernous tissue paraffin sections stained with Mallory-Parker stain to study lead deposition. We also prepared ultrathin sections for electron microscopy. We estimated cavernous tissue lead level. **RESULTS:** The ED group had significantly higher blood lead level when compared with the control group. A significant positive correlation was found between the blood lead level and cavernous tissue lead level of the ED group. Individuals with high blood lead had significantly higher levels of serum ROS and significantly lower levels of serum antioxidants, compared with those having low blood lead. Histological sections from patients with high blood lead showed deposition of grayish lead granules in the cavernous tissue. **CONCLUSIONS:** Chronic lead exposure may be associated with ED.

Corporoscopic excavation of the fibrosed corpora cavernosa for penile prosthesis implantation: optical corporotomy and trans-corporeal resection, Shaeer's technique.

Shaeer O, Shaeer A.

Andrology & Sexology Department, Faculty of Medicine, Cairo University, Cairo, Egypt

Abstract

INTRODUCTION: Implantation of a penile prosthesis in cases of neglected or resistant ischemic priapism, or delayed re-implantation following prosthesis infection and extraction, is usually a difficult and risky procedure due to fibrosis of the corpora cavernosa. Among the common complications are perforation of the urethra, tunica albuginea, and infection. The complications are usually due to the use of blind force against resistance. **AIM:** We propose the techniques of Trans-Corporeal Resection and Optical Corporotomy as adjuvant measures for excavating the fibrosed corpora cavernosa under vision, without the use of force against resistance. **METHODS:** Six patients with diffuse fibrosis of the corpora cavernosa were operated on. The instruments and technique are the same as for optical urethrotomy and transurethral resection. Optical Corporotomy was started with, where the corpora are incised from within. After establishment of a satisfactory passage, Trans-Corporeal Resection followed to scrape the fibrous tissue. Implantation of penile prosthesis was completed as usual. The procedure was performed through 1.5 cm incision in the tunica albuginea. **MAIN OUTCOME MEASURES:** Length, girth, and straightness in the erect position, as well as the incidence of complications. **RESULTS:** Operative time was an average of 90 minutes. No difficulty was encountered during the procedure. No complications were noted through 1 year of follow-up. **CONCLUSION:** Optical Corporotomy and Trans-Corporeal Resection allow for force-free, visually monitored excavation of the fibrosed corpora cavernosa, aiming at safer penile prosthesis implantation.

Study of interstitial cells in the penis: human study.

Shafik A.

Department of Surgery and Experimental Research, Faculty of Medicine,
Cairo University, Cairo, Egypt

Abstract

INTRODUCTION: Specialized pacemaker cells, similar to the interstitial cells of Cajal (ICC) of the gut, have been detected in the urinary organs and are thought to pace their motile activity. **AIM:** We investigated the hypothesis that such cells could also exist in the corpora cavernosa (CC) of the human penis. **METHODS:** During the treatment of Peyronie's disease in 11 subjects (age 42.6 +/- 3.2 SD years), 3 x 3 mm strips were excised from each of the two CC and subjected to C-kit immunohistochemistry. Controls for the specificity of the antisera consisted of incubation of the tissue with normal rabbit serum substituted for the primary antiserum. **MAIN OUTCOME MEASURES:** Interstitial cells similar to ICC could exist in the CC based on C-kit immunohistochemistry. **RESULTS:** C-kit positive branched interstitial cells were detected in the CC. They were clearly distinguishable from the smooth muscle cells that were C-kit negative and non-branched. Although the mast cells were C-kit positive, they had a smooth body surface. **CONCLUSIONS:** Interstitial cells have been identified in the CC. They are similar to the ICC and may be responsible for initiating the slow waves recorded from the smooth muscle cells and for controlling their activity. We assume that a deficiency or absence of these cells may affect the erectile function of the patient. Further studies are needed to explore the role of these cells in erection.

Electromyographic study of the anterolateral abdominal wall muscles during ejaculation.

Shafik A, Shafik IA, El Sibai O, Shafik AA.

Department of Surgery and Experimental Research, Faculty of Medicine, Cairo University, Cairo, Egypt

Abstract

BACKGROUND: The role of the anterolateral abdominal wall muscles (AAWMs) at defecation has not received sufficient attention in the literature. We investigated the hypothesis that the AAWMs exhibit increased electromyographic (EMG) activity on rectal distension, which presumably assists in rectal evacuation. **MATERIALS AND METHODS:** The effect of rectal balloon distension on the AAWMs EMG and on anal and rectal pressure was examined in 23 healthy volunteers (37.2 +/- 9.4 SD years, 14 men, 9 women); this effect was tested before and after rectal and AAWMs anesthetization. **RESULTS:** The rectal and anal pressures increased gradually upon incremental rectal balloon distension starting at 70 mL balloon distension until, at a mean of 113.6 +/- 5.6 mL, the balloon was expelled to the exterior. The AAWMs showed no EMG activity at rest or on rectal distension up to the time of balloon expulsion when they exhibited significant increase of EMG. This effect was abolished on individual rectal or AAWMs anesthetization but not with saline administration. **CONCLUSIONS:** AAWMs appear to contract simultaneously with rectal contraction; this action seems to increase the intra-abdominal pressure and assist rectal evacuation. The AAWMs contraction upon rectal contraction appears to be mediated through a reflex, which we call the "recto-abdominal wall reflex". Further studies are required to investigate the role of this reflex in defecation disorders.

Heme oxygenase vs. nitric oxide synthase in signaling mediating sildenafil citrate action

Abdel Aziz MT, El-Asmer MF, Mostafa T, Mostafa S, Atta H, Aziz Wassef MA, Fouad H, Rashed L, Sabry D, Mahfouz S.

Molecular Biology Unit, Medical Biochemistry, Andrology & Sexology and Pathology Departments, Faculty of Medicine, Cairo University, Cairo, Egypt.

Abstract

INTRODUCTION: Heme oxygenase (HO) enzyme catalyzes the rate limiting step in oxidative degradation of heme to biliverdin and carbon monoxide (CO). CO has been shown to share many properties with nitric oxide (NO), including activation of guanyl cyclase, signal transduction, and gene regulation. **AIM:** To assess the signaling pathways mediating cavernous tissues response to sildenafil citrate intake experimentally. **MAIN OUTCOME MEASURES:** In dissected cavernous tissues; detection of HO-1, HO-2 and neuronal nitric oxide synthase (nNOS) gene expressions by reverse transcriptase polymerase chain reaction (RT-PCR), HO enzyme activity assay, HO-1, HO-2 protein detection by Western blot, cyclic guanosine monophosphate (cGMP) tissue levels by enzyme linked immunosorbent assay (ELISA) and histopathology. **METHODS:** Two hundred forty Sprague-Dawley rats divided into five equal groups were investigated: group (Gr) 1, controls received regular diet; Gr 2, received sildenafil citrate 4 mg/kg orally; Gr 3, received the same dose of sildenafil added to HO inducer, diferuloylmethane; Gr 4, received sildenafil added to HO inhibitor, zinc protoporphyrin, and Gr 5, received sildenafil kg orally by gastric tube. Gr 3 received the same dose of sildenafil added to HO inducer, added to nitric oxide synthase inhibitor, L-Nitroarginine methylester. Twelve rats from each group were sacrificed by cervical dislocation successively after 1/2, 1, 2, and 3 hours from the intake. **RESULTS:** HO-2 gene expression was demonstrated in all groups. HO-1 was not expressed in controls, expressed in Gr 2, accentuated in Gr 3, and attenuated in Gr 4 and 5. These results were confirmed by Western blot. The nNOS was expressed in controls, increased in Gr 2 and 3, and decreased in Gr 4 and 5. HO enzyme activity and cGMP levels were significantly elevated in Gr 2, accentuated in Gr 3, and significantly decreased in Gr 4 and 5 compared to controls. Vasodilatations were observed in cavernous tissues of histopathologic sections of Gr 2 and increased in those of Gr 3. **CONCLUSION:** Sildenafil citrate actions may be mediated by up-regulation of HO-1 gene expression.

Antibiotic treatment can delay ejaculation in patients with premature ejaculation and chronic bacterial prostatitis.

El-Nashaar A, Shamloul R.

Department of Andrology, Sexology and STDs, faculty of Medicine,
Cairo University, Cairo, Egypt

Abstract

INTRODUCTION: Premature ejaculation (PE) is regarded as the most common male sexual disorder. Previous studies reported that prostatic inflammation was highly prevalent in PE. However, the effect of antibiotic treatment of cases with PE and chronic prostatitis has not been extensively investigated. **AIM:** To examine the effect of antibiotic treatment in delaying ejaculation in patients with PE and chronic prostatitis. **METHODS:** A total of 145 consecutive men attending of secondary premature ejaculation (SPE) were included in this study. Sequential microbiologic specimens were obtained from urine and prostatic fluid. Antibiotics were given for 1 month according to the results of their culture and sensitivity test. All patients were instructed to follow up with our clinic monthly for at least 4 months. At the end of the 4-month follow-up, another prostatic secretion analysis was performed. **RESULTS:** Based on expressed prostatic secretion culture and white blood cell (WBC) count, 94 (64.8%) were having chronic bacterial prostatitis. The remaining 51 (35.2%) patients had negative WBC count. Of the 94 patients with SPE and chronic bacterial prostatitis, 20 patients were left untreated and considered as a control group. All 74 patients with PE and chronic prostatitis continued the 1-month treatment duration. Following 1-month antibiotic treatment, all 74 patients with initially positive cultures had sterile final cultures ($P < 0.05$). Sixty-two (83.9%) patients showed increases in their ejaculatory latency time and reported good control of their ejaculation and were considered treatment responsive. None of the control group patients experienced any improvement either in their prostatic infection condition or in their ejaculation time. The follow-up of treatment-responsive patients ($N = 62$) revealed no recurrence of PE with negative prostatic culture. **CONCLUSIONS:** Successful eradication of causative organisms in patients with PE and chronic prostatitis may lead to marked improvement in intravaginal ejaculatory latency time and ejaculatory control.

Electrophysiologic activity of the tunica albuginea and corpora cavernosa: possible role of tunica albuginea in the erectile mechanism.

Shafik A, Shafik AI, El Sibai O, Shafik AA.

Department of Surgery and Experimental Research, Faculty of Medicine,
Cairo University , Cairo, Egypt.

Abstract

INTRODUCTION: It is claimed that the tunica albuginea (TA) shares in the erectile mechanism by compressing the emissary veins passing through it. However, the TA does not contain smooth muscle fibers. **AIM:** We investigated the hypothesis that TA lacks a contractile activity on the emissary veins passing through it. **METHODS:** Fourteen healthy male volunteers (mean age 35.2 +/- 4.3 years) were studied. The electromyographic (EMG) activity of the TA and corpora cavernosa (CC) was individually recorded in the flaccid and erectile phases by EMG needle electrodes. Recording was performed in the upper, middle, and lower third of the TA and CC on one and then on the contralateral side. **MAIN OUTCOME MEASURES:** The TA lacks a contractile activity on the emissary veins passing through it. **RESULTS:** The EMG of the CC in the flaccid phase recorded regular slow waves and random action potentials. The wave variables in the erectile phase exhibited a significant decrease ($P < 0.01$) compared with the variables in the flaccid phase of the same subject. The TA EMG showed no electric waves in the flaccid or erectile phases. These recordings were similar from the upper-, middle-, and lower-third of the penis, and were reproducible from the contralateral CC. **CONCLUSIONS:** Electric waves were recorded from the CC in the flaccid phase; wave variables decreased at erection. In contrast, the TA showed no electric waves in the flaccid or erectile phases. It appears that the TA acts as a CC covering sheet which expands passively at erection, and shares in compressing the subtunical venular plexus between it and the tumescent CC.

Penile prosthesis implantation in cases of fibrosis: ultrasound-guided cavernotomy and sheathed trochar excavation.

Shaeer O.

Andrology & Sexology Department, Faculty of Medicine, Cairo University, Cairo, Egypt

Abstract

INTRODUCTION: Implantation of a penile prosthesis into fibrosed corpora cavernosa is a difficult and risky procedure. Specialized instruments that assist safer and more efficient excavation include Otis Urethrotome and various cavernotomes, all of which operate underneath the tunica albuginea, out of sight. The blind use of such instruments can result in perforation of the tunica albuginea or injury to the urethra. **AIM:** This work describes the utility of ultrasonography for adding visual monitoring to any of the above-mentioned instruments, maintaining them in the mid-corpus cavernosum position to avoid perforation, and describes the application of alternative sheathed, sharp instruments that allow fast, efficient, and visually monitored drilling into fibrous tissue. **MAIN OUTCOME MEASURES:** Clinical outcome data were examined. **METHODS:** Surgery was performed on five cases with extensive fibrosis of the penis. Initial blunt dilatation by Hegar dilators faced considerable resistance. An ultrasound probe was applied to the ventral aspect of the penis. A laparoscopy sheath was advanced under ultrasound guidance up to the fibrous tissue. A sharp laparoscopy trochar was inserted through the sheath. Its tip was oriented in the mid-corpus cavernosum by longitudinal and transverse sonography sections, as it drilled into the fibrous tissue. Laparoscopy scissors were used in the same fashion to cut fibrous tissue lumps. After full excavation, penile prosthesis was implanted. **RESULTS:** All implants survived adequately. No complications occurred following implantation. Operative time ranged from 50 to 60 minutes. No difficulty was encountered at excavation. **CONCLUSION:** Ultrasound guidance can be a handy adjunct to any of the available techniques developed for excavating the fibrosed corpora cavernosa, with a possible decrease in difficulty and complication rate of the procedure. Utility of sheathed, sharp instruments guided by sonography is an alternative to the cavernotomes, allowing fast and efficient drilling into fibrous tissue.

**Development and evaluation of the Arabic index of
premature ejaculation (AIPE)**

Arafa M, Shamloul R.

Department of Andrology, Sexology and STDs, Faculty of Medicine,
Cairo University, Cairo, Egypt

Abstract

OBJECTIVES: Our report describes the construction and evaluation of the Arabic Index Premature Ejaculation (AIPE) as a diagnostic tool for premature ejaculation (PE) and presents data supporting its validity. **METHODS AND MAIN OUTCOME MEASURES:** Seventy-one men complaining of PE and 73 healthy subjects were asked to complete the seven-question AIPE. Diagnosis of PE was based on the criteria set by the second consultation on sexual dysfunctions. The seven items selected were based on assessment of erectile function, sexual desire, ejaculation latency, ejaculation control, patient satisfaction, partner satisfaction, and psychological distress. The AIPE was examined for sensitivity, specificity, and construct validity. **RESULTS:** A receiver operating characteristic curve indicated that the AIPE is an excellent diagnostic test. A cutoff score of 30 (range of scores 7-35) discriminated best (sensitivity = 0.98, specificity = 0.88). Severity of PE ranged from none (31-35) to severe (7-13). A high kappa value (0.85) indicated existence of significant agreement existed between the predicted and "true" PE classes. **CONCLUSIONS:** AIPE shows a potential to be a reliable aid to decrease the number of misdiagnosed cases of PE.

**Structured management and counseling for patients with
a complaint of a small penis**

Ghanem H, Shamloul R, Khodeir F, ElShafie H, Kaddah A, Ismail I.

Andrology & Sexology Department, faculty of Medicine,
Cairo University, Cairo, Egypt

Abstract

INTRODUCTION: Penile augmentation surgery has become increasingly common though there is no consensus about the management strategy for men with a complaint of small penis. **AIM:** To introduce and evaluate the outcome of a structured management and counseling protocol for patients with a complaint of a small-sized penis. **METHODS:** A structured protocol for consultation and management of (physically normal) patients with a complaint of a small penis through a descriptive study comprised of a series of 250 patients. **MAIN OUTCOME MEASURES:** Percentage of patients who elect to undergo penile augmentation surgery. **RESULTS:** Only nine patients (3.6%) chose to seek further surgical intervention. Two had a buried penis, two had true micropenis and five had normal penile size. **CONCLUSIONS:** Using a structured management and counseling protocol, most men chose not to undergo penile augmentation surgery, even when offered for free.

103. **J Sex Med.** 2007 Sep;4(5):1214-7.

IF: **4,676**

Penoscopy: optical corporotomy and resection for prosthesis implantation in cases of penile fibrosis, Shaeer's technique.

Shaeer O.

Andrology & Sexology Department, faculty of Medicine, Cairo University, Cairo, Egypt

Effect of rectal distension on vesical motor activity in humans: the identification of the recto-vesicourethral reflex.

Shafik A, Shafik I, El-Sibai O.

Department of Surgery and Experimental Research, Faculty of Medicine,
Cairo University, Cairo, Egypt

Abstract

OBJECTIVE: Rectal lesions have an effect on the urinary bladder and its sphincters. Patients with constipation sometimes complain of difficult micturition or of retention. Urinary retention may also occur after anorectal operations. We investigated the hypothesis that rectal distension affects vesical dilatation through a reflex action. **METHODS:** The study comprised 22 healthy volunteers (14 men, 8 women, age 42.3 +/- 10.3 SD years). The rectum was distended by rectal balloon inflated with air in increments of 50 mL. The vesical and posterior urethral pressures were recorded before and after individual anesthetization of the rectum, bladder, and posterior urethra. **RESULTS:** Fifty-milliliter rectal distension effected no vesicourethral pressure response ($P > 0.05$). At 100 and up to 300-mL distension, the vesical pressure decreased ($P < 0.05$), while the urethral pressure increased ($P < 0.05$). The response showed no significant difference upon increase of the distending volume. The mean latency was 16.8 +/- 2.4 milliseconds. Vesicourethral pressure did not respond to rectal distension when the bladder, urethra, or rectum was individually anesthetized. **CONCLUSIONS:** Rectal distension seems to induce diminished vesical, but increased urethral sphincter tone, an effect that is presumably mediated through a reflex that we call the "recto-vesicourethral reflex." This reflex is apparently evoked at defecation to abort simultaneous micturition. The clinical significance of the reflex needs to be established.

Electromyographic activity of the anterolateral abdominal wall muscles during rectal filling and evacuation.

Shafik A, El Sibai O, Shafik IA, Shafik AA.

Department of Surgery and Experimental Research, Faculty of Medicine,
Cairo University, Cairo, Egypt

Abstract

BACKGROUND: The role of the anterolateral abdominal wall muscles (AAWMs) at defecation has not received sufficient attention in the literature. We investigated the hypothesis that the AAWMs exhibit increased electromyographic (EMG) activity on rectal distension, which presumably assists in rectal evacuation. **MATERIALS AND METHODS:** The effect of rectal balloon distension on the AAWMs EMG and on anal and rectal pressure was examined in 23 healthy volunteers (37.2 +/- 9.4 SD years, 14 men, 9 women); this effect was tested before and after rectal and AAWMs anesthetization. **RESULTS:** The rectal and anal pressures increased gradually upon incremental rectal balloon distension starting at 70 mL balloon distension until, at a mean of 113.6 +/- 5.6 mL, the balloon was expelled to the exterior. The AAWMs showed no EMG activity at rest or on rectal distension up to the time of balloon expulsion when they exhibited significant increase of EMG. This effect was abolished on individual rectal or AAWMs anesthetization but not with saline administration. **CONCLUSIONS:** AAWMs appear to contract simultaneously with rectal contraction; this action seems to increase the intra-abdominal pressure and assist rectal evacuation. The AAWMs contraction upon rectal contraction appears to be mediated through a reflex, which we call the "recto-abdominal wall reflex". Further studies are required to investigate the role of this reflex in defecation disorders.

Lobectomy or pneumonectomy for multidrug-resistant pulmonary tuberculosis can be performed with acceptable morbidity and mortality: a seven-year review of a single institution's experience.

Mohsen T, Zeid AA, Haj-Yahia S.

Department of Cardiothoracic Surgery, Faculty of Medicine, Cairo University, Cairo, Egypt

Abstract

OBJECTIVE: Combination chemotherapy is considered the first-line treatment for pulmonary tuberculosis. Despite related morbidity, the need for surgical resections coincides with the emergence of multidrug-resistant tuberculosis. This study presents a single-institution retrospective audit of the surgical management of 23 patients with multidrug-resistant tuberculosis. **METHODS:** We analyzed 23 consecutive patients undergoing anatomic pulmonary resections for human immunodeficiency virus-negative multidrug-resistant tuberculosis. Twenty were male (87%) and 3 were female (13%); their mean age was 24.4 years. We defined resistance in this cohort as failure to respond to combination chemotherapy, including isoniazid and rifampicin, with a mean duration of administration being 90 days. Fifteen of 23 (65.3%) patients, although sputum negative, were considered at risk for relapse owing to extensive parenchymal disease. Eight (34.7%) of 23 patients were sputum positive at the time of operation. We performed pneumonectomy on 11 (47.8%) and lobectomy on 12 (52%) patients. All had adjuvant chemotherapy for 18 to 24 months, with follow-ups ranging from 14 to 27 months. **RESULTS:** Stay in the intensive treatment unit was 2.9 days (range 1-17 days) and hospital stay, 8.6 days (range 5-45 days). Four (17%) patients had prolonged air leak, 3 (13%) required further treatment for empyema, with re-exploration for bleeding in 1 (4%). Hospital mortality was 4.3%. All patients attained sputum-negative status postoperatively (range 1-5 months). One (4%) patient had a relapse after 12 months. **CONCLUSION:** Surgery should be considered as an adjunct to medical therapy when eradicating multidrug-resistant tuberculosis in affected patients. Anatomic lung resections can be performed with acceptable morbidity and mortality. Early referral of such patients for surgical consideration is warranted.

Paternity after varicocelectomy: preoperative sonographic parameters of success.

Donkol RH, Salem T.

Department of Radiology, Faculty of Medicine, Cairo University, Cairo, Egypt

Abstract

OBJECTIVE: This study was done to assess the sonographic findings that could predict the outcome of varicocele repair in the treatment of male infertility/subfertility related to varicocele. **METHODS:** This was a retrospective study and follow-up of 107 selected patients with male factor infertility related to the presence of varicocele. The patients were classified into 2 groups according to their estimated testicular size by sonography. Group 1 included 80 patients with normal-sized testes ($>15 \text{ cm}^3$), and group 2 included 27 patients with small testes ($10\text{-}15 \text{ cm}^3$). The mean age \pm SD was 34 ± 11 years. The mean duration of infertility was 3.4 ± 1.4 years. They had oligospermia, asthenospermia, or oligoasthenospermia. The patients underwent low ligation varicocelectomy and were followed for 18 to 45 months after surgery for occurrence of paternity. Their scrotal sonographic findings were reviewed and correlated with the postoperative paternity rate. **RESULTS:** Postoperative paternity was achieved in 24 patients (30%) of group 1 with normal-sized testes and in 3 patients (11%) of group 2 with small testes. In patients of group 1, the positive paternity rate was higher (36.6%) in patients with clinically detected varicocele, compared with only 16% of patients with subclinical varicocele. In addition, postoperative paternity was significantly higher in patients with bilateral varicocele (54.5%; $P = .0099$), patients with shunt-type varicocele (75%; $P = .0117$), and patients with a permanent grade of venous reflux (70%; $P = .0148$). No significant differences were noted between positive paternity rates in patients with mildly or markedly dilated veins. **CONCLUSIONS:** The best preoperative sonographic parameters of success of varicocele repair are the presence of normal-sized testes, clinically palpable veins, bilateral varicocele, shunt-type varicocele, and a permanent grade of venous reflux. It does not matter how much the veins are dilated.

**Mechanism of gastric emptying through the pyloric sphincter:
a human study**

Shafik A, El Sibai O, Shafik AA, Shafik IA.

Department of Surgery and Experimental Research, Faculty of Medicine,
Cairo University, Cairo, Egypt

Abstract

BACKGROUND: The current view holds that gastric emptying is effected by the force of the antral peristaltic wave squeezing food particles through pyloric sphincter resistance. Whether this is accomplished by a reflex action was investigated. **MATERIAL/METHODS:** The study comprised 12 healthy volunteers (age: 42.2+/-10.6 years). A balloon-tipped and a manometric tube were introduced into the stomach. Pressure responses in the proximal stomach, pyloric antrum, and pyloric sphincter to distension of the proximal stomach and of the antrum were recorded. Pyloric sphincter distension was induced to test its effect on antral and proximal stomach pressure. These tests were repeated in nine men after separately anesthetizing the pyloric antrum and sphincter. **RESULTS:** Distension of the proximal stomach produced no pressure changes in the proximal stomach, pyloric antrum, or sphincter ($p>0.05$). Antral distension effected a significant rise in antral pressure, but not in the proximal stomach. Significant sphincter pressure decrease occurred only with antral distension volumes >50 ml. Pyloric sphincter distension produced a significant rise in antral pressure, but not in the proximal stomach. Sphincteric or antral anesthetization produced no pressure changes in the pyloric sphincter, antrum, or proximal stomach. **CONCLUSIONS:** Pyloric sphincter relaxation upon antral distension implies a reflex relationship the authors call the "antro-sphincteric inhibitory reflex". Pyloric sphincter distension effected antral contraction, which is suggested to be a reflex in nature and which they term the "sphinctero-antral excitatory reflex". It is postulated that these two reflexes act to churn and transport gastric contents to the duodenum.

**The effect of gastric overfilling on the pharyngo-esophageal and lower esophageal sphincter:
a possible factor in restricting food intake**

Shafik A, Shafik AA, El Sibai O, Shafik IA.

Department of Surgery and Experimental Research, Faculty of Medicine,
Cairo University, Cairo, Egypt

Abstract

BACKGROUND: How afferent activity in the gut achieves the required ingestion control has not been established. The authors hypothesized that gastric overdistension effects an increase in pharyngo-esophageal and lower esophageal sphincter activity aimed at inhibiting ingestion. **MATERIAL/METHODS:** The study comprised 16 mongrel dogs. Under anesthesia, one balloon-tipped catheter was placed in the stomach, another within the lower esophageal sphincter (LES), and a third within the pharyngo-esophageal sphincter (PES). The gastric balloon was filled with H₂O in increments of 10 ml and LES and PES pressures were recorded. The test was repeated after individual gastric, LES, and PES anesthetization. **RESULTS:** Gastric balloon filling with more than 20 ml of H₂O showed progressively increasing LES pressure up to 110-120 ml of gastric filling, beyond which the pressure exhibited no further increase upon incrementally increased gastric filling volume. PES pressure increased only with a gastric filling volume exceeding 100-110 ml and continued to increase with increasing gastric filling. Gastric filling as above while the stomach, LES, and PES were separately anesthetized produced no LES or PES pressure response. **CONCLUSIONS:** LES and PES appear to contract on gastric filling; PES responds only to excess gastric filling. It seems that LES and PES response to gastric filling is mediated through a reflex which the authors call the "gastro-esophagopharyngeal reflex" (GEPR). Changes in the evoked response would indicate a defect in the reflex pathway. GEPR might thus serve as an investigative tool in the diagnosis of gastroesophageal disorders, although further studies are required.

Effect of carnosine on gentamicin-induced nephrotoxicity.

Soliman KM, Abdul-Hamid M, Othman AI.

Department of Medical Biochemistry, Faculty of Medicine, Cairo University, Cairo, Egypt

Abstract

BACKGROUND: Gentamicin (GM) is an antibiotic whose clinical use is limited by its nephrotoxicity. Thus the present study was undertaken to investigate if carnosine, an antioxidant, could protect the kidney in this experimental model. **MATERIAL/METHODS:** The animals were divided into seven groups each of 10 animals: one control group, two healthy carnosine groups (10 mg/kg/day), two GM groups (80 mg/kg/day), and two carnosine-GM groups. Kidney function tests, histopathological, ultrastructural, and enzymatic histochemical studies clarified GM nephrotoxicity. **RESULTS:** GM rat showed early kidney function failure as blood creatinine and blood urea were significantly increased after one and two weeks. Experimental evidence suggested a role of reactive oxygen species in GM-induced nephrotoxicity. Histopathological examination revealed degenerative changes in glomeruli and tubules. Ultrastructural study showed glomerular changes, some degeneration of both distal and collecting tubules. The proximal tubules showed marked degrees of changes and necrosis. Enzymatic histochemical studies of GM rats revealed marked elevation of lactate dehydrogenase (LDH) and inhibition of succinic dehydrogenase (SDH), alkaline phosphatases (ALP), acid phosphatases (ACP), and adenosine triphosphatase (ATPase). Blood creatinine and urea were normalized in the carnosine-GM group after one and two weeks. Structural and enzymatic histochemical pictures were greatly ameliorated. **CONCLUSIONS:** The mechanism by which carnosine has a protective effect on GM-induced nephrotoxicity was attributed to its many actions: double antioxidant action, protein molecule protection, removal of harmfully modified ones, activation of immune system, preservation of membrane fluidity, and cytosolic buffering. Carnosine thus offers a promise of ameliorating GM nephrotoxicity.

Tissue inhibitor of matrix metalloproteinase-2 in nasopharyngeal carcinoma

El Badry AA, El-Fadle AA, El-Balshy AL.

Departments of ENT, Medical Biochemistry and Pathology, Faculty of Medicine, Cairo University, Cairo, Egypt

Abstract

By regulating matrix metalloproteinase (MMP) activity and controlling the breakdown of extracellular matrix components, tissue inhibitors of metalloproteinases (TIMPs) play an important role in the process of tumor invasion and metastasis. The present study was designed to clarify the role of TIMP-2 in nasopharyngeal carcinoma (NPC) patients and to evaluate its importance relative to clinicopathologic parameters. It was carried out in 30 patients with NPC and 20 controls. Tissue biopsies were studied and graded pathologically, and Western blot analysis was performed to assess TIMP-2 protein expression. Clinically, in accordance with TNM classification (T: tumor size, N: lymph node involvement, M: distant metastasis), 8 cases were diagnosed as stage II, 12 as stage III, and 10 cases as stage IV; however, pathologic typing with use of the World Health Organization (WHO) classification revealed the presence of 9 specimens of squamous cell carcinoma (WHO type 1), 6 cases of nonkeratinizing carcinoma (WHO type 2), and 15 cases of undifferentiated carcinoma (WHO type 3). The difference in percentage of TIMP-2 positivity between NPC patients (76.6%) and normal controls (30%) was statistically highly significant ($P < .01$). In addition, there was a significant positive correlation between TIMP-2 protein positivity and either the clinical staging or the histopathologic typing ($P < .01$) using Chi-square test (χ^2), suggesting that TIMP-2 can be used as a marker of the severity of NPC. Accordingly, we can assume that TIMP-2 may play a role in regional lymph node and/or distant metastasis and in progression of squamous cell carcinoma. Further studies are needed to investigate the role of TIMP-2 as a marker for tumor progression and to evaluate its potential value in the follow-up of patients.

112. **Middle East J Anesthesiol.** 2007 Oct;19(3):631-44.

Painless injection of propofol: pretreatment with ketamine vs thiopental, meperidine, and lidocaine

Saadawy I, Ertok E, Boker A.

Department of Anesthesia, Faculty of Medicine, Cairo University, Egypt.

Abstract

Propofol, a commonly used anesthetic, often causes pain on injection. Several methods have been described to reduce this pain, however, complete inhibition has not been achieved. Our randomized, placebo controlled, double blind study has been conducted to compare the analgesic efficacy of iv pretreatment of ketamine, meperidine, thiopental, lidocaine to minimize the injection pain of propofol. 125 patients ASA I and II were randomly allocated into 5 groups and received. Group K, ketamine 0.4 mg/kg; Group T, thiopental 0.5 mg/kg; Group M, meperidine 0.4 mg/kg; Group L, lidocaine 1 mg/kg; Group S, saline 3 ml. All pretreatment drugs were made into 4 ml solutions and were accompanied by manual venous occlusion for 1 min, followed by tourniquet release and slowly IV administration of propofol. Pain was assessed with a four point scale. All treatment groups had a significantly lower incidence of pain than placebo group ($p < 0.05$). However, it has been observed that pretreatment with ketamine was the most effective in attenuating pain associated with propofol injection ($p < 0.05$). For painless injection of propofol, routine pretreatment with ketamine 0.4 mg/kg along with venous occlusion is recommended.

Comparison of cigarette and water pipe smoking among female university students in Egypt

Labib N, Radwan G, Mikhail N, Mohamed MK, Setouhy ME, Loffredo C, Israel E.

Department of Public Health, Faculty of Medicine, Cairo University,
Cairo, Egypt

Abstract

This study investigated behavioral and sociodemographic factors associated with tobacco use among female university students patronizing water pipe cafes in Cairo, Egypt. We interviewed two groups of female university student smokers (100 and 96 students from a public and a private university, respectively). The interviews took place in nine water pipe cafes near the two universities. A logistic regression model was developed to analyze the relationship between tobacco-related knowledge and beliefs and the choice between smoking water pipe or cigarettes. Among these smokers, 27% smoked cigarettes only, 37.8% smoked water pipe only, and 35.2% smoked both types of tobacco. Most of the water pipe smokers (74.1%) preferred this method because they believe it to be less harmful than smoking cigarettes. More than half of the subjects were encouraged to start smoking by other females (56.6%). Curiosity was a significant factor for initiation (OR = 2.8, 95% CI = 1.3-6.2, $p < .01$). We found no significant differences between water pipe and cigarette smokers regarding current age, age at initiation, quit attempts, knowledge about the hazards of smoking, wanting to be fashionable, or smoking with friends. About one in four (23.7%) attempted to quit, with health cited as a major reason. An urgent need exists for correction of the misperception among this study population that water pipe smoking is safe and less harmful than cigarette smoking.

DRD2/ANKK1 TaqI polymorphism and smoking behavior of Egyptian male cigarette smokers

Radwan GN, El-Setouhy M, Mohamed MK, Hamid MA, Azem SA, Kamel O, Israel E, Loffredo CA.

Department of Public Health, Faculty of Medicine, Cairo University,
Cairo, Egypt

Abstract

Little is known about the genetic contribution to cigarette smoking and nicotine addiction in Egypt. The dopamine D2 receptor gene contains a TaqI repeat fragment length polymorphism creating two alleles with functional significance, DRD2*A1 and DRD2*A2. We investigated the relationship between these alleles and tobacco use in a study of 389 Egyptian male current smokers (mean age = 40 years; SD = 12). Participants were interviewed in 2004 on their smoking behaviors and quit attempts, and were given the Fagerström Test for Nicotine Dependence (FTND). Blood samples were obtained and genotyped for DRD2 A1 and A2 alleles. The frequencies of A1/A1, A1/A2, and A2/A2 genotypes were 6%, 29%, and 65%, respectively. We found no statistically significant association between genotype and age at onset of smoking, years of smoking, FTND score, or average number of cigarettes smoked per day. DRD2 genotype was associated with the number of cigarettes smoked in the past 48 hr (42.2 in A1 carriers vs. 37.6 in A2, $p = .03$), the previous quit duration (28% in A1 vs. 40% in A2 quit for more than 1 month, $p = .05$), and the depth of inhalation (82% in A1 vs. 72% in A2 inhaled the smoke deeply, $p = .03$). Logistic regression analysis including DRD2 genotype, FTND score, age at smoking initiation, marital status, and education as predictors showed that maximum duration of quit time was associated with FTND score ($p = .003$), DRD2 genotype ($p = .01$), marital status ($p = .03$), and age at smoking initiation ($p = .04$). These findings suggest a modest association between DRD2 genotype and quitting behavior in male cigarette smokers in Egypt..

The retinal ciliopathies

Adams NA, Awadein A, Toma HS

The Wilmer Eye Institute, Johns Hopkins University School of Medicine, Baltimore, Maryland,
USA

Ophthalmology Department, Faculty of Medicine, Cairo University,
Cairo, Egypt.

Abstract

While the functions of many of the proteins located in or associated with the photoreceptor cilia are poorly understood, disruption of the function of these proteins may result in a wide variety of phenotypes ranging from isolated retinal degeneration to more pleiotropic phenotypes. Systemic findings include neurosensory hearing loss, developmental delay, situs-inversus, infertility, disorders of limb and digit development, obesity, kidney disease, liver disease, and respiratory disease. The concept of "retinal ciliopathies" brings to attention the importance of further molecular analysis of this organelle as well as provides a potential common target for therapies for these disorders. The retinal ciliopathies include retinitis pigmentosa, macular degeneration, cone-dystrophy, cone-rod dystrophy, Leber congenital amaurosis, as well as retinal degenerations associated with Usher syndrome, primary ciliary dyskinesia, Senior-Loken syndrome, Joubert syndrome, Bardet-Biedl syndrome, Laurence-Moon syndrome, McKusick-Kaufman syndrome, and Biemond syndrome. Mutations for these disorders have been found in retinitis pigmentosa-1 (RP1), retinitis pigmentosa GTPase regulator (RPGR), retinitis pigmentosa GTPase regulator interacting protein (RPGR-IP), as well as the Usher, Bardet-Biedl, and nephronophthisis genes. Other systemic disorders associated with retinal degenerations that may also involve ciliary abnormalities include: Alstrom, Edwards-Sethi, Ellis-van Creveld, Jeune, Meckel-Gruber, Orofaciodigital Type 9, and Gurrieri syndromes. Understanding these conditions as ciliopathies may help the ophthalmologist to recognize associations between seemingly unrelated diseases and have a high degree of suspicion that a systemic finding may be present.

Effect of the thickness of the cartilage disk on the hearing results after perichondrium/cartilage island flap tympanoplasty

Atef A, Talaat N, Fathi A, Mosleh M, Safwat S.

Department of Otolaryngology, Faculty of Medicine, Cairo University,
Cairo, Egypt

Abstract

OBJECTIVE/HYPOTHESIS: The aim of this study was to analyze the effect of the thickness of the cartilage disk on the hearing results after perichondrium/cartilage island flap tympanoplasty. Our hypothesis was that thinning the rigid thick cartilage disk to half of its thickness could increase the compliance and give better acoustic gain and hearing results to patients with a reconstructed tympanic membrane. **STUDY DESIGN:** A prospective before/after clinical trial was conducted between January 2003 and March 2004. **METHOD:** Patients with chronic suppurative otitis media (mucosal type), central perforations and intact ossicular chain were randomly divided into 2 groups: the 1st group was treated with the perichondrium/cartilage island flap technique using the full-thickness cartilage disk, while the 2nd group was treated with the same technique but after bisecting the cartilage to half of its thickness. Hearing was evaluated using a 4-frequency (500, 1,000, 2,000, 3,000 Hz) pure-tone average air-bone gap before and then 8-9 months after tympanoplasty, and the results were compared statistically.

Sentinel lymph node biopsy (SLNB) in management of N0 stage T1-T2 lip cancer as a "same day" procedure.

Khalil HH, Elaffandi AH, Afifi A, Alsayed Y, Mahboub T, El-Refaie KM.

Department of Plastic & Reconstructive Surgery, Faculty of Medicine,
Cairo University, Cairo, Egypt

Abstract

Current management of N0 stage lip Squamous Cell Carcinoma (SCC) are prophylactic neck dissection, radiotherapy, or "watch and see" policy. The aim is the evaluation of the role of sentinel lymph node biopsy (SLNB) in their management based upon actual and not hypothetical presence of cervical lymph node (CLN) micrometastases as a same day procedure. Fourteen patients between November 2003 and August 2005 were included, nine men and five women, median age:57 years, (range 34-65 years). SLNB using preoperative lymphoscintigraphy and intra-operative localisation with patent blue and radioactive Tc(99m) Human Serum Albumin was performed. The median follow-up period was 26 months. Successful patent blue localisation in 13/14 whilst successful radio-localisation in all patients. Micrometastases were detected in 1/14 whom underwent therapeutic neck dissection. No local recurrence or regional lymph node involvement were detected. SLNB is a technically feasible and accurate approach for detection of CLN micrometastases in N0 stage lip SCC using the triple diagnostic localisation technique as a same day procedure.

Early hospital discharge versus continued hospitalization in febrile pediatric cancer patients with prolonged neutropenia: A randomized, prospective study.

Ahmed N, El-Mahallawy HA, Ahmed IA, Nassif S,
Haddad A

El-Beshlawy A, El-

Pediatric Branch, National Cancer Institute, Cairo University, Cairo, Egypt
Pediatric Department, Faculty of Medicine, Cairo University, Cairo, Egypt.

Abstract

BACKGROUND: Hospitalization with single or multi-agent antibiotic therapy has been the standard of care for treatment of febrile neutropenia in cancer patients. We hypothesized that an empiric antibiotic regimen that is effective and that can be administered once-daily will allow for improved hospital utilization by early transition to outpatient care. **PROCEDURE:** Febrile pediatric cancer patients with anticipated prolonged neutropenia were randomized between a regimen of once-daily ceftriaxone plus amikacin (C + A) and imipenem monotherapy (control). Afebrile patients on C + A satisfying "Early Discharge Criteria" at 72 hr continued treatment as outpatients. We compared the outcome, adverse events, duration of hospitalization, and cost between both groups. **RESULTS:** A prospective randomized controlled clinical trial was conducted on 129 febrile episodes in pediatric cancer patients with prolonged neutropenia. No adverse events were seen in 32 children (84% of study arm) treated on an outpatient basis. We found a statistically significant difference between the duration of hospitalization of the C + A group [median 5 days] and control [median 9 days]($P < 0.001$), per episode antibiotic cost ($P < 0.001$) and total episode cost ($P < 0.001$). There was no statistically significant difference in the response to treatment at 72 hr or after necessary antimicrobial modifications. **CONCLUSIONS:** We conclude that pediatric febrile cancer patients initially considered at risk for sepsis due to prolonged neutropenia can be re-evaluated at 72 hr for outpatient therapy. The convenience, low incidence of adverse effects, and cost benefit of the once-daily regimen of C + A may be particularly useful to reduce the overall treatment costs and duration of hospitalization.

Lesions of the hypothalamus: MR imaging diagnostic features.

Saleem SN, Said AH, Lee DH.

Department of Diagnostic Radiology, Faculty of Medicine, Cairo University, Cairo, Egypt

Abstract

The hypothalamus is susceptible to involvement by a variety of processes, including developmental abnormalities, primary tumors of the central nervous system (CNS), vascular tumors, systemic tumors affecting the CNS, and inflammatory and granulomatous diseases. The hypothalamus may also be involved by lesions arising from surrounding structures such as the pituitary gland. Magnetic resonance (MR) imaging is the modality of choice for evaluating the anatomy and pathologic conditions of the hypothalamus. The MR imaging differential diagnosis depends on accurate anatomic localization and tissue characterization of hypothalamic lesions through the recognition of their signal intensity and contrast material enhancement patterns. Diffusion-weighted imaging and proton MR spectroscopy can be helpful in differentiating among various types of hypothalamic lesions. Key MR imaging features, in addition to the patient's age and clinical findings at presentation, may be helpful in developing the differential diagnosis for lesions involving the hypothalamic region.

Clinical outcome following stimulation with HMG versus highly purified HMG in patients undergoing ICSI.

Foutouh IA, Khattab S, Mohesn IA, Moaz M, Al-Inany H.

Department of Obstetrics & Gynecology, Cairo University, Cairo, Egypt

Abstract

Current purification processes allow the production of highly purified human menopausal gonadotrophin (HP-HMG), with human chorionic gonadotrophin (HCG) constituting most of its LH-like activity. This retrospective study aimed to compare the effectiveness of HP-HMG to the widely used traditional human menopausal gonadotrophin (HMG) preparation. A total of 174 women undergoing intracytoplasmic sperm injection cycles were allocated to either HMG or HP-HMG for ovarian stimulation. The number of mature oocytes was significantly higher in the HP-HMG group (14.72 +/- 7.81) than in the HMG group (12.15 +/- 11.07) ($P < 0.05$). However, the number of good quality embryos was not significantly different between both groups (HMG: 1.65 +/- 1.54; HP-HMG: 1.78 +/- 1.41). Similarly, there was no statistically significant difference in number of embryos transferred per woman (HMG: 3.95 +/- 1.87; HP-HMG: 4.27 +/- 1.60). The pregnancy rate per woman was 38.39% versus 51.79% in the HMG- and HP-HMG-treated groups respectively. These findings suggest that HP-HMG produces more mature oocytes than ordinary HMG, but similar pregnancy rates.

Paternal age and outcome of intracytoplasmic sperm injection

Aboulghar M, Mansour R, Al-Inany H, Abou-Setta AM, Aboulghar M, Mourad L, Serour G.

The Egyptian IVF- ET Centre, Maadi, Egypt.
Department of Obstetrics & Gynecology, Cairo University, Cairo, Egypt

Abstract

In a retrospective study, the outcome of intracytoplasmic sperm injection (ICSI) in two age groups of men was studied. Couples with male partners aged 50 years and over (group A) (n = 227) with mean age of 53 +/- 5 years were compared with couples with younger age-group male partners (group B) (n = 227) with a mean age of 38.4 +/- 5.8 years. The control group of younger men was selected so that the women's age matched between the two groups. There was no significant difference in pregnancy rate between the two groups (37.9 versus 36.6%; OR = 1.06, 95% CI = 0.72-1.55). There was also no significant difference in the pregnancy rate between men aged 60 years and over as compared with men aged 50 to 59 years (OR = 1.00, 95% CI 0.74-1.37). However, the long-term outcome of these pregnancies needs further investigation. Semen analysis showed significantly lower motility in group A (37.4 +/- 20.4) versus group B (46.4 +/- 15.5; P < 0.0001). There was a significantly higher fertilization rate in younger men (P < 0.0001; OR = 1.36, 95% CI = 1.19-1.55), but this did not affect the pregnancy rate. In conclusion, it appears that paternal age has no effect on the pregnancy rate after ICSI.

**Gonadotrophin-releasing hormone antagonists for assisted conception:
a Cochrane review**

Al-Inany HG, Abou-Setta AM, Aboulghar M.

Department of Obstetrics & Gynaecology, Faculty of Medicine, Cairo University, Cairo, Egypt

Abstract

Gonadotrophin-releasing hormone (GnRH) antagonists suppress gonadotrophin secretion resulting in dramatic reduction in treatment cycle duration. Assuming comparable clinical outcomes, these benefits may justify changing the standard long GnRH agonist protocol to GnRH antagonist regimens. To evaluate the evidence, databases (e.g. Cochrane Library, MEDLINE, EMBASE) were electronically searched, hand searches were performed, and manufacturers in the field were contacted. Twenty-seven randomized controlled trials (RCT) fulfilled inclusion criteria for comparison of GnRH antagonist with long GnRH agonist protocol. Clinical pregnancy rate and ongoing pregnancy/live-birth rate were significantly lower in the antagonist group ($P = 0.009$; $OR = 0.83$, 95% CI 0.72-0.95 and $P = 0.02$; $OR = 0.82$, 95% CI 0.68-0.97 respectively). Conversely, incidence of severe OHSS was significantly reduced with the antagonist protocol ($P = 0.01$; $OR = 0.60$, 95% CI 0.40-0.88), and interventions to prevent OHSS were administered more frequently in the agonist group ($P = 0.03$; $OR = 0.43$, 95% CI 0.20-0.92). Concluding, GnRH antagonist protocols are short, simple, with good clinical outcomes and significant reduction in severe OHSS incidence and gonadotrophin amount; however, the lower pregnancy rate compared with the GnRH agonist long protocol necessitates counselling subfertile couples before recommending change from GnRH agonist to antagonist.

Clinical significance of serum concentration of anti-Müllerian hormone in obese women with polycystic ovary syndrome.

El-Halawaty S, Rizk A, Kamal M, Aboulhassan M, Al-Sawah H, Noah O, Al-Inany H.

Department of Obstetrics & Gynecology, Faculty Medicine, Cairo University, Cairo, Egypt

Abstract

In the human ovary, expression of anti-Müllerian hormone (AMH) is detected primarily in granulosa cells of preantral and small antral follicles. The aim of this study was to compare serum AMH measurements in obese women with polycystic ovary syndrome (PCOS) with those in obese normo-ovulatory women and to evaluate the role of AMH as a predictor of ovulation induction by clomiphene citrate compared to FSH. Sixty-eight obese women with PCOS were compared to 17 normoovulatory obese women. All women had a body mass index greater than 30 kg/m². Women with PCOS received clomiphene citrate (150 mg/day) for 5 days starting from day 3 of cycle and were subdivided into responsive and non-responsive groups. There was a significant difference in AMH concentration between women with PCOS and the control group ($P < 0.05$) and also between women with PCOS who responded to clomiphene citrate and those who did not ($P < 0.01$). A value of 1.2 ng/ml AMH could be used to predict response to clomiphene citrate in obese women with PCOS (sensitivity 71%, specificity 65.7%). AMH production increases in women with PCOS compared to controls. AMH measurement could also be useful in the prediction of ovarian response to clomiphene citrate.

A prospective randomized study comparing coasting with GnRH antagonist administration in patients at risk for severe OHSS.

Aboulghar MA, Mansour RT, Amin YM, Al-Inany HG, Aboulghar MM, Serour GI.

The Egyptian IVF- ET Centre, Maadi, Egypt.

Department of Obstetrics & Gynecology, Cairo University, Cairo, Egypt

Abstract

This work evaluated possible advantages of gonadotrophin-releasing hormone (GnRH) antagonist administration as an alternative to coasting in prevention of severe ovarian hyperstimulation syndrome (OHSS) in women undergoing IVF/ intracytoplasmic sperm injection. A prospective randomized study comparing coasting (group A) (n = 96) and GnRH antagonist administration (group B) (n = 94) in patients at risk of OHSS was performed. The primary outcome measure was high quality embryos. The secondary outcome measures were days of intervention, number of oocytes, pregnancy rate, number of cryopreserved embryos and incidence of severe OHSS. There were significantly more high quality embryos (2.87 +/- 1.2 versus 2.21 +/- 1.1; P < 0.0001), and more oocytes (16.5 +/- 7.6 versus 14.06 +/- 5.2; P = 0.02), in group B as compared with group A. There were more days of coasting as compared with days of antagonist administration (2.82 +/- 0.97 versus 1.74 +/- 0.91; P < 0.0001). In conclusion, GnRH antagonist was superior to coasting in producing significantly more high quality embryos and more oocytes as well as reducing the time until HCG administration. There was no significant difference in pregnancy rate between the two groups. No OHSS developed in either group.

Long-term use of nebulized human recombinant DNase1 in two siblings with primary ciliary dyskinesia.

El-Abiad NM, Clifton S, Nasr SZ.

Faculty of Medicine, Cairo University, Children's Hospital, Cairo, Egypt

Abstract

Primary ciliary dyskinesia (PCD) is characterized by ultra-structural defects of the cilia. In this report, we describe the long-term use of nebulized dornase alfa in two siblings with PCD. This is the first report of long-term use of dornase alfa in PCD.

Estimation of transforming growth factor-beta 1 as a marker of renal injury in type II diabetes mellitus.

Ibrahim S, Rashed L.

Departments of Medicine and Medical Biochemistry, Faculty of Medicine, Cairo University, Cairo, Egypt

Abstract

OBJECTIVE: To evaluate the serum transforming growth factor-beta 1 level in type II diabetic patients with diabetic nephropathy (DN) and to assess its use as a marker of renal injury in type II diabetes. **METHODS:** Sixty patients with type II diabetes mellitus (DM), who attended the outpatient internal medicine clinic in Cairo University Hospital, Egypt from January 2003 to March 2003, were the subjects of the present study and compared to 10 healthy age- and gender-matched control subjects. They were divided into 6 major groups according to degree of metabolic control, as determined by glycosylated hemoglobin (HbA1c), the rate of urinary albumin excretion (UAE) and serum creatinine level. Serum transforming growth factor-beta 1 level was assessed by enzyme linked immunosorbent assay (ELISA). **RESULTS:** Serum transforming growth factor-beta 1 level was significantly increased in micro albuminuric (UAE 20-200 ug/minute), macro albuminuric (UAE >200 ug/minute) and overtly nephropathic diabetic patients with renal impairment compared to healthy controls ($p < 0.05$). In addition, serum transforming growth factor-beta 1 level was significantly increased in type II diabetic patients with poor glycemic control (HbA1c >7.6%) compared to patients with good glycemic control (HbA1c 5.5-7.6%). Serum transforming growth factor-beta 1 level was significantly increased in hypertensive DM patients compared to normotensive DM patients ($p < 0.05$). There was a strong correlation between serum transforming growth factor-beta 1 level and HbA1c, blood urea, serum creatinine and 24-hour urinary protein excretion ($p < 0.01$). **CONCLUSION:** Our data strongly support the hypothesis that hyperglycemia may trigger the activation of transforming growth factor-beta 1 which in turn mediates progressive renal damage in type II DM. Increased serum transforming growth factor-beta 1 may be useful as a marker of diabetic renal disease as it shows a close association with the parameters of renal injury in type II diabetes.

Increased apoptosis and proliferative capacity are early events in cyst formation in autosomal-dominant, polycystic kidney disease.

Ibrahim S.

Department of Internal Medicine, Faculty of Medicine, Cairo University,
Cairo, Egypt

Abstract

Previous studies have highlighted epithelial proliferation and apoptosis in the cyst lining as common features in animal models of cystic disease. In this study, we sought to evaluate the timing and extent of these changes in renal tissue obtained from patients with autosomal-dominant, polycystic kidney disease (ADPKD) subjected for nephrectomy for a variety of clinical indications. Cell proliferation was assessed using an antibody to proliferating cell nuclear antigen (PCNA), and apoptosis was evaluated by the use of terminal deoxynucleotidyl transferase (TdT) digoxigenin-deoxyuridine (dUTP) nick end-labeling technique (ApopTag(R)). The origin of cystic structures was evaluated using antibodies to epithelial membrane antigen (EMA). The lineage of interstitial mononuclear cells was assessed by anti CD 45 and CD 68 monoclonal antibodies. We found an increased rate of proliferation within the epithelium, not only of cystic, but also of noncystic, tubules that was significantly higher than the corresponding values from normal kidney (p pound 0.0001). Apoptotic index values were significantly increased within the epithelium lining noncystic and cystic structures (p < 0.001). In the interstitium, increased proliferation and apoptosis rates were also noted. Interstitial infiltrates were dense and consisted mainly of CD 68-positive macrophages and CD 45-positive lymphocytes. The present study demonstrated that changes in cell turnover are early events in cyst formation. The observation of mild proportionate elevation of both proliferation and apoptosis values of the epithelium lining cysts explains the lack of increase risk of renal cell carcinoma in ADPKD. The development of heavy interstitial inflammation could contribute to progressive tubulointerstitial scarring, leading to progressive renal failure.

Evaluation of calculation algorithms implemented in different commercial planning systems on an anthropomorphic breast phantom using film dosimetry.

Polednik M, Abo Madyan Y, Schneider F, Wolff D, Bannach B, Lambrecht U, Wallin A, Cwiekala M, Maurer K, Reif F, Lohr F, Wenz F; Breast Cancer Working Group (German Cancer Association).

Department of Radiation Oncology, Mannheim University Hospital, University of Heidelberg, Mannheim Medical Center, Germany
Nuclear Medicine Department, Faculty of Medicine, Cairo University, Cairo, Egypt

Abstract

PURPOSE: To evaluate the accuracy of dose calculation algorithms of different planning systems for postoperative tangential radiotherapy in breast cancer. **MATERIAL AND METHODS:** On a CT dataset of an anthropomorphic phantom, a structure set of the left lung, clinical target volume (CTV), planning target volume, heart, and external contour were delineated. The dataset was processed by six radiation oncology centers participating in this multicenter dosimetry project. Conventional plans with two tangential wedged fields were generated in MasterPlan, Pinnacle, Eclipse, TMS, and PrecisePLAN. Plan calculations were done using the beam data of local linacs. The dose distributions were verified under local conditions with Gafchromic-EBT films. **RESULTS:** In all planning systems, deviations between calculation and measurement were around +/-3% in the CTV in the measured plane. Only small areas with deviations of +/-5% were detected. Pencil-beam (PB) calculations overestimated the dose inside the lung by up to 23%. Collapsed cone (CC) underestimated the lung dose by up to 6%. **CONCLUSION:** CC calculates the dose distribution more accurately than PB. Inside regions with electron disequilibrium, however, the dose is slightly underestimated.

129. **Surg Innov.** 2007 Dec;14(4):270-4.

Contraction of gluteal maximus muscle on increase of intra-abdominal pressure: role in the fecal continence mechanism.

Shafik A, Olfat El Sibai, Shafik AA, Shafik IA.

Department of Surgery and Experimental Research, Faculty of Medicine, Cairo University, Egypt

Abstract

The gluteus maximus muscle (GMM) appears to contract with increased intra-abdominal pressure (IAP). The hypothesis that GMM contraction with increased IAP was investigated. The study comprised 32 healthy volunteers. IAP was measured by intravesical catheter. The response of electromyography of the GMM and external anal sphincter to sudden momentary and slow sustained straining was registered. The procedure was repeated after individual urinary bladder and GMM anesthetization. Sudden straining increased electromyographic activity of the external anal sphincter and GMM. Slow, sustained straining raised electromyographic activity of the gluteus maximus and external sphincter at differing degrees depending on straining intensity. The anesthetized gluteus maximus or urinary bladder did not respond to straining. The suggested GMM contraction on straining seems mediated through a reflex that is called "straining-gluteal reflex." This reflex appears to assist anal closure through extended and laterally rotated femur induced by gluteus contraction.

Duodeno-jejunal junction: a histoanatomical study with the concept of the existence of an "anatomical" sphincter.

Shafik A, Shafik AA, Wahdan M, El Sibai O.

Department of Surgery and Experimental Research, Faculty of Medicine,
Cairo University, Egypt

Abstract

BACKGROUND: Duodenojejunal junction (DJJ) pressure decreased on duodenal contraction and increased on jejunal contraction. These findings postulated potential existence of anatomical sphincter at DJJ. **METHODS:** DJJ was studied by direct dissection in 34 cadavers and histologically in 24. Transverse and longitudinal sections across DJJ were cut and stained. **RESULTS:** DJJ was narrower than duodenum or jejunum and had one or two grooves occupied by arterial branch derived from superior mesenteric artery and we call it "duodenojejunal junction artery". DJJ was thicker on palpation than duodenum or jejunum. Its mucous membrane was crowded into "DJJ rosette". DJJ length varied in adults from 0.75 to 0.9 cm. Microscopically, circular muscle layer was thickened at DJJ. **CONCLUSION:** The thickened circular muscle, mucosal rosette and narrowing at DJJ point to possible existence of anatomical sphincter at DJJ. Together with presence of high-pressure zone at DJJ, these findings would support such postulation.

131. **Surg Technol Int.** 2007;16:151-5.

Cutaneous uretero-ureterostomy: a technique of urinary diversion for high-risk patients with bladder cancer.

Shafik A, Shafik IA, El Sibai O.

Department of Surgery and Experimental Research, Faculty of Medicine,
Cairo University, Egypt

Abstract

A simplified technique of cutaneous ureterostomy (CU) is presented for the treatment of high-risk bladder cancer patients. From 1968 to 2003, 2118 cystectomies with CU were performed for bladder cancer patients with uremic manifestations. The mean age was 67.4 +/- 27.3; 1206 patients were men and 912 were women. Cutaneous uretero-ureterostomy (CUU) was performed by three methods: (a) one ureter was brought across the midline and anastomosed end-to-side to the other ureter (end-to-side uretero-ureterostomy, ESUU); (b) the two ureters were placed side by side in a double-barrel fashion (double-barrel ureterostomy, DBU); or (c) the two distal ureteric ends were anastomosed together before fixation to the skin (side-to-side uretero-ureterostomy, SSUU). Selection of the technique depended on ureteric length and girth. No complications specific to CUU have occurred. Serum creatinine was normalized and intravenous pyelogram (IVP) showed improvement of obstructive manifestations and renal function. Ureterostomy stenosis was more common in ESUU than in DBU and SSUU; it responded to dilatation. This simple and easy procedure is shown to have a low rate of operative and postoperative complications and is indicated for high-risk patients with bladder cancer.

132. **Tanzan Health Res Bull.** 2007 Sep;9(3):196-201.

Low intensity laser therapy is comparable to bromocriptine-evening primrose oil for the treatment of cyclical mastalgia in Egyptian females

Saied GM, Kamel RM, Dessouki N.

Department of General Surgery and Radiation Oncology, Faculty of Medicine, Cairo University, Cairo University, Egypt

Abstract

One of the successful treatments for cyclical mastalgia is bromocriptine evening primrose combination. A double blind study was applied on 80 patients with cyclical mastalgia. They were randomly divided into two groups (A and B). In group A, patients were treated by bromocriptine/evening primrose. To group B, LILT with specified dosimetry was applied, using a device that delivers He-Ne laser combined with 4 infra-red diode laser. Evaluation of treatment was both subjective (using VAS) and objective (studying the degree of drop in plasma cortisol level). The drop of plasma cortisol with treatment was studied using the student -t distribution. A good response was observed in the laser group in 82.5%, compared to 63.9% in the bromocriptine/evening primrose group. There was a significant deference before and after treatment in both groups ($P < 0.05$). This difference was more for the drug treated group than for the laser treated group, but in the latter, it acted on a wider sector of patients. In conclusion, LILT is recommended as a new treatment modality for cyclical mastalgia.

133. **Tanzan Health Res Bull.** 2007 May;9(2):121-5.

The effect of mastectomy and radiotherapy for breast carcinoma on soft tissues of the shoulder and its joint mobility among Egyptian patients.

Saied GM, Kamel RM, Dessouki NR.

Department of General Surgery and Radiation Oncology, Faculty of Medicine, Cairo University, Egypt

Abstract

Both urinary bilharziasis and urothelial neoplasia are associated with increased production of tissue carcinoembryonic antigen (CEA). Urine and serum CEA were determined in 43 patients with urinary bladder carcinoma including 22 post bilharzial and 21 non-biharzial cases, in addition to 10 normal control cases. A significant increase was detected in both urine and serum CEA levels with bladder carcinoma compared to control cases. Urinary CEA was significantly elevated in 86% of bilharzial versus 62% in nonbilharzial bladder carcinoma. Only 10.5% of control cases had urinary CEA elevation. The mean urinary CEA in bilharzial was higher than that of nonbilharzial carcinoma, but the difference was not statistically significant. There was a definite relationship between urine CEA and the stage of malignancy; the higher the stage, the higher the level of urine CEA. No relationship could be detected between the stage of malignancy and serum CEA, or between the grades of malignancy and urine or serum CEA levels. In conclusion, urinary CEA is more useful than serum CEA in the early detection of bilharziasis-associated urothelial carcinoma.

Rectal cooling test in the differentiation between constipation due to rectal inertia and anismus

Shafik A, Shafik I, El Sibai O, Shafik AA.

Department of Surgery and Experimental Research, Faculty of Medicine,
Cairo University, Cairo, Egypt

Abstract

BACKGROUND: The differentiation between constipation due to rectal inertia and that due to outlet obstruction from non-relaxing puborectalis muscle (PRM) is problematic and not easily achieved with one diagnostic test. Therefore, we studied the hypothesis that the rectal cooling test (RCT) can effectively be used to differentiate between those two forms of constipation. **METHODS:** The study enrolled 28 patients with constipation and abnormal transit study in whom radio-opaque markers accumulated in the rectum; 15 healthy volunteers acted as controls. Electromyographic activity of the external anal sphincter (EAS) and PRM was initially recorded. Subsequently rectal wall tone was assessed by a barostat system during rectal infusion with normal saline at 30 degrees C and at 4 degrees C with simultaneous electromyography (EMG). **RESULTS:** There was a significant increase in EMG activity of the EAS and PRM on strain- ing ($p<0.001$), suggestive of anismus, in 10 of 28 patients and 0 of 15 controls. Rectal tone in controls did not respond to saline infusion at 30 degrees C, but it increased at 4 degrees C ($p<0.05$). Similarly, in constipated patients rectal tone did not respond to rectal saline infusion at 30 degrees C, but infusion at 4 degrees C increased tone in all 10 patients with anismus ($p<0.05$); EMG activity of the EAS and PRM also increased ($p<0.001$). In the remaining 18 patients, rectal tone after saline infusion at 4 degrees C remained unchanged. **CONCLUSIONS:** Rectal infusion with iced saline increased rectal tone in healthy controls and constipated patients with anismus while it had no effect in the remaining patients. Lack of increase of rectal tone may be secondary to rectal inertia. According to these preliminary observations, the rectal cooling test may be useful in differentiating between rectal inertia and anismus.

135. *Ther Clin Risk Manag.* 2007 Aug;3(4):527-31.

A randomized study examining the effect of 3 SSRI on premature ejaculation using a validated questionnaire

Arafa M, Shamloul R.

Abstract

AIM: This study reports the results of a large prospective single-blinded clinical trial of 3 SSRI (paroxetine, fluoxetine and escitalopram) in PE using a validated questionnaire. **METHODS:** A total of 100 normally potent men suffering from PE were enrolled in a randomized single-blinded comparative study of fluoxetine, paroxetine and escitalopram. Patients were randomized into 3 treatment groups. Group 1 comprised 33 men who received fluoxetine 20 mg daily, group 2 comprised 37 men who received escitalopram 10 mg and group 3 comprised 30 men who received paroxetine 20 mg daily. All drug regimens were given in early morning dose and continued for 4 weeks. **RESULTS:** All 100 (100%) patients experienced a significant increase in their AIPE total score after drug treatment. There was no significant difference regarding any of the 7 items of the AIPE between the 3 treatment groups. All 3 drugs were generally well tolerated. **CONCLUSIONS:** Our relatively large study, using a validated questionnaire confirmed similar useful effect of paroxetine, fluoxetine and escitalopram on ejaculation time. Further large cohort studies with long-term follow up are needed to evaluate the sustained effects of these drugs on ejaculation latency.

The impact of maintaining normal serum albumin level following living related liver transplantation: does serum albumin level affect the course? A pilot study

Mukhtar A, EL Masry A, Moniem AA, Metini M, Fayez A, Khater YH.

Anesthesiology and surgery Departments, Faculty of Medicine,
Cairo University, Cairo, Egypt

Abstract

Hypoalbuminemia in patients with end-stage liver disease persists for weeks even after liver transplantation. Human albumin is widely used for volume replacement, to increase oncotic pressure, to improve organ function, and to promote wound healing. However, these practices are not evidence-based. We prospectively studied the clinical outcome of 40 patients following living related liver transplantation. Patients were randomized to an albumin group (n=20), where 20% human albumin was administered to maintain serum albumin level ≥ 3 g/dL, and a control group (n=20), where there was no correction for serum albumin. Hemodynamics and laboratory investigations, fluid administration, blood transfusion, and fluid balance were recorded during the first 5 days in the intensive care unit. Serum albumin level was significantly higher in the albumin group. Heart rate, blood pressure, central venous pressure, and cardiac output did not vary significantly between the groups. There was no significant difference in serum creatinine, creatinine clearance, bilirubin, ALT, AST, prothrombin time, and international normalized ratio between both groups. No significant difference between Tacrolimus level and dose required to maintain therapeutic concentration was noted between both groups. Postoperative course and complications did not vary significantly between both groups. In conclusion, postoperative albumin administration to a target serum albumin ≥ 3 g/dL does not have additional benefits for the postoperative course in patients scheduled for living related liver transplantation.

Laparoscopic donor nephrectomy for pediatric recipient.

Fettouh HA, Raouf HA, el Shenoufy A, El Feel A, Agabo H, Hakim AA, Fettouh IA.

Urology Department, Faculty of Medicine, Cairo University, Cairo, Egypt.
Wadi el Nile Transplant Center, Cairo, Egypt

Abstract

INTRODUCTION: To present our outcome of laparoscopic donor nephrectomy for pediatric recipients, who may pose special challenges. **MATERIALS AND METHODS:** Since March 2003, we performed more than 400 laparoscopic donor nephrectomies for 39 pediatric recipients (age less than 17 years of age). The preoperative, intraoperative, and postoperative data were reviewed to analyze the outcomes of these cases. We used the left kidney in 26 and the right kidney in 13 cases. Seven cases had double renal arteries, which were reconstructed on the bench. **RESULTS:** The mean donor and recipient ages were 31 +/- 5 years and 13 +/- 4 years, respectively. The mean donor operative time was 2.1 hours (range 1.2 to 3.2). The warm ischemia time averaged 3 +/- 0.6 minutes. In 27 cases, we used the common iliac artery and common iliac vein for vascular anastomosis. In 12 cases, the anastomosis was performed to the aorta and vena cava. Seven patients had prior augmentation cystoplasty, and the ureter was anastomosed to the pouch directly. All grafts functioned immediately, with a mean creatinine at 24 hours of 1.5 +/- 0.3 mg/dL. At last follow-up (mean 13.6 months), the mean creatinine was 0.9 mg/dL. One patient lost the graft due to severe rejection that was resistant to antithymocyte globulin. **CONCLUSIONS:** Laparoscopic donor nephrectomy for pediatric recipients is safe and provides quality organs with excellent function. Outcome is comparable to those after open donor nephrectomy.

Laparoscopic donor nephrectomy: single-center experience in Egypt with 400 consecutive cases.

Fettouh HA, Raouf HA, Shenoufy A, El Feel A, Agabo H, Hakim AA, Fettouh IA.

Urology Department, Faculty of Medicine, Cairo University, Cairo, Egypt.
Wadi el Nile Transplant Center, Cairo, Egypt

Abstract

INTRODUCTION: In this study, we present our experience with laparoscopic donor nephrectomy and evaluate the outcomes of donors and recipients. **PATIENTS AND METHODS:** Between March 2003 and August 2006, 400 laparoscopic donor nephrectomies were performed in our institution. Donors were evaluated for renal vasculature using computed tomography angiography. We used the left kidney in 329 donors and the right kidney in 71. Donor surgeries were done transperitoneally using three trocars on the left side and four trocars on the right side. Kidneys were extracted manually through a 7-cm Pfannenstiel incision. **RESULTS:** All cases were completed laparoscopically. Mean operative time was 117 +/- 34 minutes. Mean blood loss was 56 +/- 28 mL. None of the donors required a blood transfusion. Mean warm ischemia time was 2.6 +/- 0.4 minutes. The mean renal artery length was 3.1 +/- 0.4 cm; the mean renal vein length was 2.4 +/- 1.2 cm. Mean hospital stay was 2.1 days. No donor required readmission. Kidneys were transplanted successfully and the mean recipient creatinine on discharge was 1.2 +/- 0.6 mg/dL. One patient had a renal artery thrombosis on postoperative day 2. Another patient with double renal arteries had thrombosis of the smaller artery just after surgery. Acute tubular necrosis was seen in 17 patients, four of whom required dialysis. Kidney function recovered thereafter in all acute tubular necrosis cases. **CONCLUSION:** Laparoscopic surgery is a minimally invasive approach for living donor nephrectomy with good functional outcomes. The donor benefits from lesser morbidity without compromising the anatomic or physiological outcome of the nephrectomized kidney.

Experience with Tube (Promedon) malleable penile implant

**Fathy A, Shamloul R, AbdelRahim A, Zeidan A,
Ghanem H.**

El-Dakhly R,

Andrology & Sexology Department, Faculty of Medicine,
Cairo University Cairo, Egypt

Abstract

INTRODUCTION: The main advantages of semirigid penile prosthesis are simple implantation, ease of use, very low risk of mechanical failure and more financial suitability for patients in developing countries. **AIM:** To evaluate reliability and safety of Tube(R) (Promedon, Cordoba, Argentina) penile prosthesis in the surgical treatment of erectile dysfunction. **PATIENTS AND METHODS:** This retrospective case series was conducted on 83 patients who underwent Tube penile implant surgeries between 2001 and 2006. The choice of Promedon penile implant was determined by the patient himself. Strict infection control measures were applied. Patients were followed up for stability of vital signs and discharged within 72 h. **RESULTS:** Successful sexual intercourse was possible for 75 (90.4%) of cases. Common postoperative complaints were: prosthesis too short in 27 cases (32.5%), not happy with the appearance of the penis in 8 cases (9.6%), non-specific pain which subsided spontaneously in 20 cases (24%), in which no further intervention was done apart from reassurance. 79 (95.2%) patients were on regular follow-up for the first year and the rest dropped out. None of the patients experienced prosthetic infection postoperatively. Crural cross-perforation (4%) was managed intraoperatively. Hematomas (1.6%) were managed conservatively. Retarded ejaculation (10%) and penile hypoesthesia (0.8%) resolved spontaneously within 6 months in all cases. **CONCLUSION:** The Promedon malleable penile prosthesis is reliable and safe in the surgical treatment of erectile dysfunction.

Physiological considerations of the morphologic changes of the testicles during erection and ejaculation: a canine study

Shafik A, Shafik AA, Shafik IA, El Sibai O.

Department of Surgery and Experimental Research, Faculty of Medicine, Cairo University, Cairo, Egypt

Abstract

PURPOSE: We investigated the hypothesis that testicles and scrotal skin undergo morphologic changes that would serve the mechanism of erection and ejaculation. **MATERIALS AND METHODS:** Testicular and scrotal skin changes during erection and ejaculation were studied in 9 dogs. Testicular volume was measured by ultrasound, testicular temperature by digital thermometer and testicular vascularity by color duplex Doppler ultrasonography. Dartos muscle activity was studied by electromyography. **RESULTS:** Testicular volume increased during erection and diminished at ejaculation. Testicular consistency became softer during erection and firmer at ejaculation. During erection and ejaculation the testicles were elevated closer to abdominal wall. Testicular temperature increased in the erectile phase followed by reduction during ejaculation. Doppler ultrasonography recorded increased testicular vascularity during erection and diminished vascularity at ejaculation. A dartos muscle electromyogram exhibited increased activity in the erectile and ejaculatory phases. **CONCLUSION:** During erection and ejaculation, testicles underwent changes which apparently serve the erectile and ejaculatory functions of penis.

141. **Urology.** 2007 Jul;70(1):165-7.

IF: 2,13

Lymphatic vessel hydrodissection during varicocelectomy.

Atteya A, Amer M, AbdelHady A, Al-Azzizi H, Ismael E, Abdel-Gabbar M, Shamloul R.

Department of Andrology & Sexology, Faculty of Medicine,
Cairo University, Cairo, Egypt

Abstract

We report a new technique of preserving the lymphatics during varicocelectomy using saline infusion that we have termed "lymphatic hydrodissection."

Duodeno-jejunal junction dyssynergia: description of a novel syndrome.

Shafik A, Shafik IA, El Sibai O, Shafik AA.

Department of Surgery and Experimental Research, Faculty of Medicine,
Cairo University, Cairo, Egypt

Abstract

AIM: To investigate the hypothesis that duodeno-jejunal dyssynergia existed at the duodeno-jejunal junction. **METHODS:** Of 112 patients who complained of epigastric distension and discomfort after meals, we encountered nine patients in whom the duodeno-jejunal junction did not open on duodenal contraction. Seven healthy volunteers were included in the study. A condom which was inserted into the 1st duodenum was filled up to 10 mL with saline in increments of 2 mL and pressure response to duodenal distension was recorded from the duodenum, duodeno-jejunal junction and the jejunum. **RESULTS:** In healthy volunteers, duodenal distension with 2 and 4 mL did not produce pressure changes, while 6 and up to 10 mL distension effected significant duodenal pressure increase, duodeno-jejunal junction pressure decrease but no jejunal pressure change. In patients, resting pressure and duodeno-jejunal junction and jejunal pressure response to 2 and 4 mL duodenal distension were similar to those of healthy volunteers. Six and up to 10 mL 1st duodenal distension produced significant duodenal and duodeno-jejunal junction pressure increase and no jejunal pressure change. **CONCLUSION:** Duodeno-jejunal junction failed to open on duodenal contraction, a condition we call 'duodeno-jejunal junction dyssynergia syndrome' which probably leads to stagnation of chyme in the duodenum and explains patients' manifestations.

Study of the duodenal contractile activity during antral contractions

Shafik A, El Sibai O, Shafik AA.

Department of Surgery and Experimental Research, Faculty of Medicine,
Cairo University, Cairo, Egypt

Abstract

AIM: To investigate the hypothesis that duodenal bulb (DB) inhibition on pyloric antrum (PA) contraction is reflex. **METHODS:** Balloon (condom)-tipped tube was introduced into 1(st) duodenum (DD) and a manometric tube into each of PA and DD. Duodenal and antral pressure response to duodenal and then PA balloon distension with saline was recorded. These tests were repeated after separate anesthetization of DD and PA. **RESULTS:** Two and 4 mL of 1(st) DD balloon distension produced no pressure changes in DD or PA (10.7 +/- 1.2 vs 9.8 +/- 1.2, 11.2 +/- 1.2 vs 11.3 +/- 1.2 on H(2)O respectively, $P > 0.05$). Six mL distension effected 1(st) DD pressure rise (30.6 +/- 3.4 cm H(2)O, $P < 0.01$) and PA pressure decrease (6.2 +/- 1.4 cm H(2)O, $P < 0.05$); no response in 2(nd), 3(rd) and 4(th) DD. There was no difference between 6, 8, and 10 mL distensions. Ten mL PA distension produced no PA or 1(st) DD pressure changes ($P > 0.05$). Twenty mL distension increased PA pressure (92.4 +/- 10.7 cm H(2)O, $P < 0.01$) and decreased 1(st) DD pressure (1.6 +/- 0.3 cm H(2)O, $P < 0.01$); 30, 40, and 50 mL distension produced the same effect as the 20 mL distension ($P > 0.05$). PA or DD distension after separate anesthetization produced no significant pressure changes in PA or DD. **CONCLUSION:** Large volume DD distension produced DD pressure rise denoting DD contraction and PA pressure decline denoting PA relaxation. PA relaxation upon DD contraction is postulated to be mediated through a reflex which we call duodeno-antral reflex. Meanwhile, PA distension effected DD relaxation which we suggest to be reflex and termed antro-duodenal reflex. It is suggested that these 2 reflexes, could act as investigative tools in diagnosis of gastroduodenal motility disorders.

144. **World J Gastroenterol.** 2007 Mar 28;13(12):1828-32.

Prevalence and risk factors of asymptomatic hepatitis C virus infection in Egyptian children

El-Raziky MS, El-Hawary M, Esmat G, Abouziied AM, El-Koofy N, Mohsen N, Mansour S, Shaheen A, Abdel Hamid M, El-Karakasy H.

Departments of Pediatrics and Tropical Medicine, Faculty of Medicine,
Cairo University, Cairo, Egypt

Abstract

AIM: To identify the prevalence, risk factors and manifestations of asymptomatic hepatitis C virus (HCV) infection in Egyptian children. **METHODS:** Children at the age of 1-9 years were screened for HCV antibodies and alanine aminotransferase (ALT) levels. Every child with elevated ALT and/or detectable HCV antibodies was tested for HCV RNA by RT-PCR and compared with two negative controls for risk factors and signs and symptoms of liver disease. **RESULTS:** We screened 1042 children, six of them had elevated ALT, negative HCV antibody and positive RNA, likely representing acute hepatitis C cases. Fifteen children were HCV seropositive, 5 of them were HCV RNA positive. Asymptomatic HCV infection was present in 2.02% (positive results for either HCV antibodies or HCV-RNA or both). Symptoms such as diarrhea, abdominal pain, history of fatigue and school absence because of illness and risk factors such as dental care were significantly more common among HCV positive cases than among controls. None of the HCV positive children was diagnosed as having signs of advanced liver disease upon clinical or ultrasonographic examination. **CONCLUSION:** Asymptomatic HCV infection is detectable in 2.02% Egyptian children.

Urine carcinoembryonic antigen levels are more useful than serum levels for early detection of Bilharzial and non-Bilharzial urinary bladder carcinoma: observations of 43 Egyptian cases

Saied GM, El-Metenawy WH, Elwan MS, Dessouki NR.

Departments of General Surgery and Nuclear Medicine, Faculty of Medicine, Cairo University, Cairo, Egypt

Abstract

BACKGROUND: Both urinary bilharziasis and urothelial neoplasia are associated with increased production of tissue carcinoembryonic antigen (CEA). **PATIENTS AND METHODS:** Urine and serum CEA were determined in 43 patients with urinary bladder carcinoma including 22 post bilharzial and 21 nonbiharzial cases, in addition to 10 normal control cases. **RESULTS:** A significant increase was detected in both urine and serum CEA levels with bladder carcinoma compared to control cases. Urinary CEA was significantly elevated in 86% of bilharzial, versus 62% in nonbilharzial bladder carcinoma. Only 10.5% of control cases had urinary CEA elevation. The mean urinary CEA in bilharzial, was higher than that of nonbilharzial carcinoma, but the difference was not statistically significant. There was a definite relationship between urine CEA and the stage of malignancy; the higher the stage, the higher the level of urine CEA. No relationship could be detected between the stage of malignancy and serum CEA, or between the grades of malignancy and urine or serum CEA levels. **CONCLUSION:** Urinary CEA is more useful than serum CEA in the early detection of urothelial carcinoma particularly if provoked by bilharziasis. Its level is also correlated with the tumor stage.

146. **VOX Sang** 2007.

IF: **2,111**

Preparation and viral inactivation of cryoprecipitate in blood banks in resource-limited countries

Burnouf T, Goubran HA, Radosevich M, El-Ekiaby M

Human Protein Process Sciences (HPPS), Research and Development,
Lille, France

Department of Medicine, faculty of Medicine, Cairo University, Cairo, Egypt