Effect of dexmedetomidine on the characteristics of bupivacaine in a caudal block in pediatrics.


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Abstract

Background: Dexmedetomidine (DEX) is a highly selective alpha(2)-adrenocceptor agonist that has been used increasingly in children. However, the effect of caudal DEX has not been evaluated before in children. This prospective randomized double-blinded study was designed to evaluate the analgesic efficacy of caudal DEX with bupivacaine in providing pain relief over a 24-h period.

Methods: Sixty children (ASA status I) aged 1-6 years undergoing unilateral inguinal hernia repair/orchidopexy were allocated randomly to two groups (n = 30 each). Group B received a caudal injection of bupivacaine 2.5 mg/ml, 1 ml/kg; Group BD received the same dose of bupivacaine mixed with DEX 1 microg/kg during sevoflurane anesthesia. Processed electroencephalogram (bispectral index score), heart rate, blood pressure, pulse oximetry and end-tidal sevoflurane were recorded every 5 min. The characteristics of emergence, objective pain score, sedation score and quality of sleep were recorded post-operatively. Duration of analgesia and requirement for additional analgesics were noted.

Results: The end-tidal sevoflurane concentration and the incidence of agitation were significantly lower in the BD group (P < 0.05). The duration of analgesia was significantly longer (P < 0.001) and the total consumption of rescue analgesic was significantly lower in Group BD compared with Group B (P < 0.01). There was no statistically significant difference in hemodynamics between both groups. However, group BD had better quality of sleep and a prolonged duration of sedation (P < 0.05).

Conclusion: Caudal DEX seems to be a promising adjunct to provide excellent analgesia without side effects over a 24-h period. It has the advantage of keeping the patients calm for a prolonged time. Implications statement: Caudally administered DEX (1 microg/kg), combined with bupivacaine, was associated with an extended duration of post-operative pain relief.
Mammaplasty: the "super flap" or the superior pedicle extra long flap for massive breasts with marked ptosis or gigantomastia.

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Abstract

**Background:** Very large breasts associated with ptosis frequently present a challenge to the plastic surgeon in choosing the ideal procedure to obtain a satisfactory result. A free nipple graft, which for many represents the best option in these conditions, has many disadvantages.

**Methods:** The author's method of a superior pedicle flap allows for very long flaps, in some cases over 40 cm and breast ptosis with the nipple at more than 55 cm from the suprasterna notch with preservation of the circulation to the nipple-areola complex. This procedure has been developed and modified from the French oblique method of Dufourmentel and Mouly converted to an inverted T, while the glandular resection is performed in a keel fashion behind the areola to house and give room for these very long flaps without undue compression on them and endangering the blood supply to the areola-nipple complex.

**Results:** The method is described in detail, the early and late results presented, and advantages and disadvantages discussed. It has stood the test of time as it has been used regularly for more than 20 years and has become our standard method. **CONCLUSION:** The method presented is especially suitable for very large breasts with ptosis; however, excellent results are also achieved for all other degrees of ptosis, with very little modification in the procedure needed to suit different breast sizes and shapes. Most of the time we obtain a pleasing and attractive breast. This method rarely resulted in complications and never required a blood transfusion.
Severe cleidocranial dysplasia and hypophosphatasia in a child with microdeletion of the C-terminal region of RUNX2.

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Cleidocranial dysplasia (CCD) is a rare autosomal dominant skeletal dysplasia due to mutations causing haploinsufficiency of RUNX2, an osteoblast transcription factor specific for bone and cartilage. The classic form of CCD is characterized by delayed closure of the fontanels, hypoplastic or aplastic clavicles and dental anomalies. Clinical reports suggest that a subset of patients with CCD have skeletal changes which mimic hypophosphatasia (HPP). Mutations in RUNX2 are detected in approximately 65% of cases of CCD, and microdeletions occur in 13%. We present clinical and radiological features in a 6-year-old child with severe CCD manifested by absence of the clavicles marked calvarial hypomineralization, osteoporosis and progressive kyphoscoliosis. HPP features included Bowdler spurs, severe osteopenia, and low alkaline phosphatase. Following negative mutation analysis of RUNX2, comparative genomic hybridization (CGH) microarray was performed. The result revealed a microdeletion in RUNX2, disrupting the C-terminal part of the gene.

Hospitalization pattern in a hospital-based palliative care program: an example from Saudi Arabia.

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Abstract

The few palliative care programs available to date in Saudi Arabia are largely hospital-based. Subacute palliative care models have not been developed yet. This retrospective review was conducted to assess the patterns and outcomes of hospital-based palliative care unit admissions in the absence of subacute palliative care models. We reviewed 759 eligible palliative care unit admissions related to 629 cancer patients during a 4-year period. Of all admissions, 66% were hospitalized through the emergency room. The average hospital stay was 24 days. The majority (86%) of patients died in-hospital. These results suggest that end-of-life quality indicators are unlikely to improve depending on hospital-based palliative care models only. To improve palliative care services in Saudi Arabia, other subacute models may need to be considered.
For a peaceful cancer death in Egypt: palliative care is not...

Alsirafy SA.

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Effect of severe stress on the gastric motor activity: canine study of mechanism of action.

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Abstract

Background: Increased gastric motility was observed during restraint stress in animals; however, mechanism of action could not be traced in literature. We investigated the hypothesis that high levels of stressful cutaneous stimuli induce increase of gastric motor activity through a reflex action.

Methods: Gastric tone (GT) was assessed in 14 dogs by barostat system consisting of balloon-ended tube connected to strain gauge and air-injection system. Tube was introduced into stomach and its balloon inflated with 150 mL of air. Thermal cutaneous stimulation (TCS) was performed by thermal plate applied to skin. Temperature was raised in increments of 5 degrees C up to 107 degrees C and GT was simultaneously assessed by recording balloon volume variations expressed as percentage change from baseline volume. Test was repeated after separate anesthetization of skin and stomach.

Results: TCS up to mean temperature of 48.7 ± 1.1 degrees C effected significant decrease of GT, but significant increase beyond this temperature. Twenty minutes after individual anesthetization of skin and stomach, TCS produced no significant change in GT.

Conclusion: TCS up to certain degree effected GT decrease, whereas TCS beyond this degree augmented the GT. These effects seem to be mediated through reflex action as evidenced by their absence on individual anesthetization of the suggested 2 arms of the reflex arc: skin and stomach; we call this reflex "cutaneo-gastric reflex." The reflex may have the potential to serve as an investigative tool in diagnosis of gastric motor disorders provided further studies are performed to reproduce current results.
Repair of chronic rupture of the achilles tendon using 2 intratendinous flaps from the proximal gastrocnemius-soleus complex.

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Abstract

Background: Chronic rupture of the Achilles tendon is a surgical challenge, owing to the presence of a gap between the retracted ends, which renders direct repair almost impossible.

Purpose: In this study, 2 intratendinous distally based flaps fashioned from the proximal gastrocnemius-soleus complex are used to bridge the gap between the retracted edges of the ruptured Achilles tendon. The flaps are placed in the same line of pull of the ruptured tendon, in an effort to make the graft mimic the original biomechanics as much as possible.

Study Design: Case series; Level of evidence, 4.

Methods: Eleven patients (9 male and 2 female) with neglected ruptures of the Achilles tendon with retracted ends were included in this study. Two flaps fashioned from the proximal gastrocnemius-soleus complex were rotated over themselves, passed through the proximal stump, and then securely inserted into a previously prepared bed in the distal stump.

Results: The patients were followed up for a period of 6 to 9 years. At the final follow-up, all patients were able to return to their preinjury level of activity within a period of 6 to 9 months. The mean preoperative American Orthopedic Foot and Ankle Society score was 42.27, whereas it was 98.91 at the final follow-up, with a range of 88 (in 1 patient) to 100 points (in 10 patients). All 11 patients showed statistically significant improvement according to the Holz rating system.

Conclusion: This technique allows for a bridging of the defect present in chronic ruptures of Achilles tendons, with a minimum of complications and a good final outcome.
Comparison of central venous oxygen saturation and mixed venous oxygen saturation during liver transplantation

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Abstract

Central venous catheterisation is commonly performed during major surgery and intensive care, and it would be useful if central venous oxygen saturation could function as a surrogate for mixed venous oxygen saturation. We studied 50 patients undergoing living related liver transplantation. Blood samples were taken simultaneously from central venous and pulmonary artery catheters at nine time points during the pre-anhepatic, anhepatic, and postanhepatic phases. Four hundred and fifty sets of measurement were obtained. There was a good correlation between central venous oxygen saturation and mixed venous oxygen saturation. The mean (SD) difference (95% limit of agreement) was lowest at the first time point (1.06 (0.65)%, -1.94% to 2.7%) and then increased throughout the study but remained acceptable. The change in mixed venous oxygen and central venous oxygen saturations occurred mostly in parallel and as a result changes in mixed venous oxygen saturation were reflected adequately in the change in central venous oxygen saturation. The correlation between mixed venous oxygen saturation and cardiac output was poor.
The safety of modern hydroxyethyl starch in living donor liver transplantation: a comparison with human albumin.


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Abstract

Background: Intravascular volume replacement therapy is an important issue in the perioperative management of liver transplantation. There is paucity of data on the safety of hydroxyethyl starch (HES) in patients undergoing liver transplantation. We evaluated the safety of a new HES 130/0.4 in the perioperative management of liver transplantation, with a special emphasis on renal function.

Methods: Forty patients undergoing living donor liver transplantation were prospectively randomized into two groups. Patients in the ALB group (n = 20) received 5% human albumin. Patients in the HES group (n = 20) received third generation HES (6% HES 130/0.4). Total colloid administration was limited to 50 mL x kg(-1) x d(-1). The volume was given to maintain pulmonary artery occlusion pressure or central venous pressure between 5 and 7 mm Hg. If additional fluids were required, balanced crystalloid solution was used. Anesthetic and surgical techniques were standardized. Serum creatinine and cystatin C plasma levels were measured from arterial blood samples after induction of anesthesia, at the end of surgery, and on the first 4 postoperative days.

Results: All 40 enrolled patients completed the study. Demographic and intraoperative variables were comparable in both groups. Postoperatively, the mean +/- sd volume was 6229 +/- 1140 mL and 4636 +/- 1153 mL in HES and ALB groups, respectively (P = 0.003). There was significantly larger net cumulative fluid balance in the ALB group 1100 +/- 900 mL compared with the HES group 3047 +/- 2000 mL, P = 0.029. Serum creatinine, creatinine clearance, and cystatin C plasma levels showed no significant differences between the two groups. One patient in each group developed acute renal failure requiring renal replacement therapy.

Conclusion: The use of HES 130/0.4 as an alternative to human albumin resulted in equivalent renal outcome after liver transplantation.
Use of the 5-Flap Z Plasty in Digital Flexion Contractures

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Abstract

The purpose of this article is to report the use of the 5-flap Z plasty in the management of long-standing flexion contractures of the proximal interphalangeal joint of the digits (the 5-flap Z plasty has been originally described by Hirshowitz et al for the lengthening of thumb web contractures). Nine fingers in 5 patients with Stern grade I and II contractures of the proximal interphalangeal joint were included. The defect following release of the contracture was covered with the 5-flap Z plasty and Kirschner wires temporarily maintained the corrected position. The extension lag was measured preoperatively and postoperatively. The preoperative extension lag ranged from 20 to 60 degrees (mean: 43.3 degrees). The improvement in extension lag ranged from 15 to 60 degrees (mean: 40.5 degrees). Minimal complications were encountered. The technique described is useful in the management of Stern grade I and II digital contracture.
Programmed cell death in varicocele-bearing testes

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Abstract

Accelerated apoptosis is a significant factor in the pathophysiology of male infertility disorders associated with abnormal spermatogenesis. This study aimed to investigate apoptosis in varicocele-bearing testes. Sixty four men with varicocele (18 fertile and 46 infertile) were studied compared with eight men with obstructive azoospermic as controls. Apoptosis was assessed in testicular biopsy specimens using terminal deoxynucleotidyl transferase deoxyuridine triphosphate nick end labeling (TUNEL) method as well as electron microscopy. The results demonstrated that the occurrence of apoptotic changes comprised all types of germ cells but not affecting Sertoli cells. Mean tubular apoptotic indices of fertile or infertile men with varicocele were significantly higher than controls (mean ± SD 4.55 ± 1.03%, 6.29 ± 1.82% versus 2.71 ± 0.45%, P < 0.05). Mean Leydig cells apoptotic indices of infertile men with varicocele were significantly higher than those of fertile men without varicocele as well as controls (1.18 ± 0.38%, 0.68 ± 0.15%, 0.31 ± 0.21%, P < 0.05). Apoptotic indices were nonsignificantly correlated with Johnsen score, testicular volume or varicocele grade. It is concluded that testicular apoptosis is increased in varicocele-associated men either fertile or infertile who may be implicated in associated spermatogenic dysfunction.
Bilateral testicular tuberculomas: a case detection.

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Abstract

Genitourinary tuberculosis (TB) is the most frequent manifestation of extrapulmonary TB, where the epididymides, seminal vesicles and prostate are the commonly infected sites, followed by the testes. We report a 29-year-old man who presented with primary infertility since 2 years. He had a history of bilateral painful scrotal swelling with fever since 4 years, diagnosed as pyogenic scrotal abscess, which was managed by incision and drainage. At presentation, fever, weight loss and night sweats were absent. On examination, he had ovoid slightly tender, firm to hard irregular masses in the lower poles of both testes with no line of separation encroaching on both epididymes. Both testes were not felt distinctly and the overlying scrotal skin showed no signs of inflammation. Semen analysis revealed azoospermia. Scrotal colour coded duplex ultrasonography demonstrated moderately enlarged testes having well defined hypoechoic masses with foci of calcifications. Magnetic resonance imaging confirmed these findings. Biopsy and histopathology detected the presence of caseating granuloma and Ziehl-Neelsen staining of paraffin sections demonstrated acid-fast bacilli. The patient was treated with combination therapy. Tracing of the condition is discussed.
Seminal reactive oxygen species-antioxidant relationship in fertile males with and without varicocele.

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Abstract

The aim of this study was to assess seminal reactive oxygen species (ROS)-antioxidants relationship in fertile and infertile men with and without varicocele. One hundred and seventy six males were studied: fertile healthy volunteers (n = 45), fertile men with varicocele (n = 45), infertile oligoasthenozoospermia (OA, n = 44) without varicocele and infertile OA with varicocele (n = 42). In their seminal plasma, two ROS parameters (malondialdehyde, hydrogen peroxide) and five antioxidants (superoxide dismutase, catalase, glutathione peroxidase, vitaminE, vitaminC) were estimated. Compared with fertile healthy men, in all other studied groups, estimated seminal ROS were significantly higher and estimated antioxidants were significantly lower. Infertile men with varicocele showed the same relationship as infertile men without varicocele. Sperm concentration, total sperm motility as well as sperm normal forms were negatively correlated with seminal malondialdehyde and were positively correlated with vitaminC. It is concluded that varicocele has an oxidative stress (OS) in fertile normozoospermic bearing conditions. This may allow understanding that, within men with varicocele, there is a threshold value of OS over which male fertility may be impaired.
Effect of HO-1 cDNA-liposome complex transfer on erectile signalling of aged rats


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Abstract

This work aimed to assess the efficacy of haeme oxygenase-1 (HO-1) cDNA-liposome complex transfer as a mediator of erectile signalling in aged rats. One hundred and fifty aged white albino rats were equally divided into five groups: controls, rats receiving lipofectamine, rats receiving intracorporeal HO-1 cDNA-liposome complex, rats receiving HO-1 cDNA-liposome complex plus nitric oxide synthase (NOS) inhibitor, and rats receiving HO-1 cDNA-liposome complex plus HO inhibitor. Six rats were killed from each group after 12, 24 and 48 h, and after 1 and 2 weeks. In dissected cavernous tissues, the following were assessed: HO-1 gene expression, Western blot for HO-1, HO enzyme activity, cGMP and histopathology. The results showed that HO-1 cDNA-liposome complex transfer led to a significant increase in cavernous tissue HO-1 protein, HO-1 gene expression, HO enzyme activity and cGMP up to 1 week. NOS inhibition exhibited no effect on HO-1 gene enhancement of cavernous tissue HO enzyme activity or cGMP, whereas inhibition of HO significantly decreased these parameters. Histopathology of cavernous tissue demonstrated a significant dilatation of helicine arteries in HO-1 cDNA-liposome complex treated group after 48 h compared with the controls. It is concluded that HO-1 cDNA-liposome complex transfer augments cavernous tissue cGMP with subsequent sinusoidal relaxation.
Primary anastomosis of the traumatically amputated penis.

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Abstract

Penile amputation is an uncommon condition for which immediate surgical replantation is warranted. This work aimed to represent intervention and management for an amputated penis by replantation and reconstruction. A 23-year-old man presented with traumatic penile amputation for 2 h where the penile proximal part was 1 cm far from the pubis. Replantation included end-to-end anastomosis of the urethral mucosa over a catheter, approximation of the corpus cavernosum and tunica albuginea, anastomosis of the deep dorsal vein, dorsal nerve, both dorsal arteries and superficial dorsal vein. At day 5 post-operatively, the replanted penis had preserved capillary filling. The catheter was removed at day 11, where the patient urinated smoothly. The preliminary cosmetic appearance was satisfactory with frequent morning erection, reported night emission twice within the first month post-operatively. Sensation was preserved in the distal anastomosed stump. It is concluded that meticulous microsurgical technique decreases the possibility of skin loss and increases the chance of erectile function.
Preserved testicular artery at varicocele repair

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Abstract

Whether or not varicocele causes infertility is a contentiously debated issue. This study aimed to compare semen parameters and pregnancy rate in infertile males who underwent varicocelectomy with preserved or accidentally ligated testicular artery. Ninety-five infertile oligoasthenozoospermic patients with left-sided varicocele were subjected to subinguinal varicocelectomy with trial of preserving testicular artery. According to absence or presence of testicular artery in the histological excised pedicle the cases were divided into two groups; group 1 (n = 60) with preserved testicular artery and group 2 (n = 35) where the artery was accidentally ligated being not defined or injured. Semen analysis was carried out after 4, 8 and 12 months and post-operative pregnancy rate was assessed after 1 year. Serum follicle-stimulating hormone (FSH), luteinising hormone (LH) and total testosterone (T) were estimated pre- and post-operatively. Semen parameters (total sperm count, sperm concentration and sperm motility) showed significant increase post-operatively compared with pre-operative parameters but were comparable in both groups with no significant difference. Serum FSH, LH, T hormones and pregnancy rate (23.3% versus 22.9%) 1 year post-operatively showed no significant difference. It is concluded that accidental ligation of testicular artery has no deleterious effect on semen parameters during primary varicocele repair if the testicular arterial supply was not compromised.
The anti-angiogenic activity of NSITC, a specific cathepsin L inhibitor.


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Abstract

Increased neovasculature and resistance to chemotherapy are hallmarks of aggressive cancer; therefore, the development of approaches to simultaneously inhibit these two processes is highly desirable. Previous findings from our laboratory have demonstrated that cathepsin L plays a key role in the development of drug resistance in cancer, and that its inhibition reversed this phenomenon. The goal of the present study was to determine whether targeting cathepsin L would inhibit angiogenesis. For this, the effects of a specific cathepsin L inhibitor, Napsul-Ile-Trp-CHO (NSITC), were tested in vitro on endothelial cell proliferation and interaction with the extracellular matrix, and also in vivo, by measuring its effect on angiogenesis in the chick chorioallantoic membrane (CAM) and mouse matrigel models. The results indicated that NSITC readily inhibits the proliferation of endothelial cells by inducing cell cycle arrest at the G(0)/G(1) phase, and suppresses cell adhesion to different substrates. Investigation of the underlying mechanism(s) indicated that NSITC was able to reduce expression of the adhesion molecule alphaVbeta3 integrin, inhibit cathepsin L-mediated degradation of the extracellular matrix, and disrupt secretion of the pro-angiogenic factors fibroblast growth factor (FGF) and vascular endothelial growth factor (VEGF). NSITC demonstrated potent efficacy in inhibiting growth factor- and tumor mediated-angiogenesis in the CAM and mouse matrigel models of angiogenesis. The anti-angiogenic effects of NSITC resulted in inhibition of tumor growth in the CAM and in nude mouse xenograft models. Together, these findings provide evidence that cathepsin L plays an important role in angiogenesis and suggest that NSITC represents a potential drug for the treatment of aggressive cancer.
MSCs inhibit monocyte-derived DC maturation and function by selectively interfering with the generation of immature DCs: central role of MSC-derived prostaglandin E2.

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Abstract

Various studies analyzed the inhibitory effect exerted by mesenchymal stem cells (MSCs) on cells of the innate or acquired immunity. Myeloid dendritic cells (DCs) are also susceptible to such inhibition. In this study, we show that MSCs strongly inhibit DC generation from peripheral blood monocytes. In the presence of MSCs, monocytes supplemented with granulocyte-macrophage colony-stimulating factor (GM-CSF) and interleukin-4 (IL-4) did not acquire the surface phenotype typical of immature (CD14(-), CD1a(+)) or mature (CD80(+), CD86(+), CD83(+)) DCs, failed to produce IL-12, and did not induce T-cell activation or proliferation. Analysis of the molecular mechanism(s) responsible for the inhibitory effect revealed a major role of prostaglandin E(2) (PGE(2)). Thus, addition of the PGE(2) inhibitor NS-398 restored DC differentiation and function. Moreover, PGE(2) directly added to cultures of monocytes blocked their differentiation toward DCs in a manner similar to MSCs. Although IL-6 has been proposed to play a role in MSC-mediated inhibition of DC differentiation, our data indicate that PGE(2) and not IL-6 represents the key inhibitory mediator. Indeed, NS-398 inhibited PGE(2) production and restored DC differentiation with no effect on IL-6 production. These data emphasize the role of MSCs in inhibiting early DC maturation and identifying the molecular mechanisms responsible for the inhibitory effect.
Triple negative, basal cell type and EGFR positive invasive breast carcinoma in Kuwaiti and British patients.

Ayad E, Francis I, Peston D, Shousha S.
Classification of inflammatory breast disorders and step by step diagnosis.

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Abstract

In this study, the authors proposed a classification of inflammatory breast disorders based on which a practical systematic scheme in diagnosis was applied aiming to differentiate simple forms of mastitis from more complicated and malignant forms. The study population included 197 female patients who were clinically or pathologically diagnosed as having mastitis. All patients underwent Ultrasound examination. Mammography was performed for 133/197 cases. Cases of simple mastitis and periductal mastitis were followed up to ensure complete resolution. Abscess cavities and postoperative collections were drained. Other cases were biopsied to confirm diagnosis and were managed accordingly by their treating physicians. Statistical analysis was performed by the Statistical Package for Social Science. Nominal Data were expressed as frequency and relative frequencies (percentage). Ultrasound and Mammography categorical results were compared using the Pearson Chi Square and Fisher's exact test. Patients were classified into three groups; infectious, noninfectious and malignant mastitis. Simple and malignant forms of mastitis showed many signs in common. The presence of ill defined collections and abscess cavities on ultrasound favored simple over malignant forms of mastitis while extensive skin thickening and infiltrated malignant nodes favored malignant forms. Interstitial edema, edematous fat lobules, abscess cavities, skin thickening seen on ultrasound examination were significantly lower in noninfectious than simple and malignant mastitis. Mammography signs were less discriminating. Diffuse skin thickening and increased density favored malignant mastitis while dilated retro areolar ducts and characteristic calcification patterns favored noninfectious forms. Simple mastitis showed nonspecific signs. Ultrasound examination in mastitis cases shows more specific signs in differentiating between the three forms of mastitis and is useful in monitoring treatment, excluding complications and guide for interventional procedures. Mammography should be performed whenever complicated, malignant and uncommon forms of mastitis are suspected.
Detection of myxovirus resistance protein A in lichen planus lesions and its relationship to hepatitis C virus.


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Abstract

Background: Lichen planus (LP) is an inflammatory disease of the skin and oral mucosa. Studies suggested that type I interferons (IFNs) could play an important role in the cytotoxic inflammation in LP. Type I IFNs stimulate the production of several IFN-induced proteins including myxovirus resistance protein A (MxA protein). The association of LP and chronic hepatitis C is well established, with variable prevalence rates among different populations. Many authors have considered hepatitis C virus (HCV) as a possible antigen for inducing cytotoxic immune response in LP.

Objectives: To investigate the role of type I IFNs in LP through the detection of MxA protein, and to compare the expression of MxA protein between HCV-positive and HCV-negative patients with LP in an attempt to clarify the role of HCV in the pathogenesis of LP.

Methods: The study included 33 skin biopsies from patients with LP and 10 control biopsies. MxA mRNA was detected by reverse transcription-polymerase chain reaction. HCV-specific antibodies were detected in patient sera by enzyme-linked immunosorbent assay.

Results: Our analysis revealed a significantly higher level of MxA protein in all the LP skin biopsies compared with controls. The expression was significantly higher in HCV-positive patients than in HCV-negative patients.

Conclusions: Type I IFNs play a role in the pathogenesis of LP, and HCV could induce LP through increasing the production of type I IFNs.
The use of sulfasalazine and pentoxifylline (low-cost antitumour necrosis factor drugs) as adjuvant therapy for the treatment of pemphigus vulgaris: a comparative study.


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

Abstract

Background: Pemphigus vulgaris (PV) represents a potentially life-threatening autoimmune blistering disease in which IgG autoantibodies are directed against cell-cell adhesion molecules. Tumour necrosis factor (TNF)-alpha has been suggested to have a possible role in the mechanism underlying acantholysis.

Objectives: This comparative double-blinded study was carried out to estimate the use of both sulfasalazine (SSZ) and pentoxifylline (PTX) (low-cost anti-TNF drugs) as an adjuvant therapy for PV.

Methods: The study included 64 patients with PV: 42 patients received the full treatment regimen (with SSZ and PTX) and 22 patients followed the same regimen except they received placebo instead of PTX and SSZ. Five healthy subjects were included as controls. Serum samples were taken to measure TNF-alpha levels in the control group and before starting treatment in both the patient groups and this was repeated every 2 weeks for 8 weeks; a clinical assessment was made every week for all the patients.

Results: The serum level of TNF-alpha was statistically higher in both groups of patients than in the healthy individuals. There was a statistically significant decrease in the serum levels of TNF-alpha in patients in group 1 compared with those in group 2 at 6 and 8 weeks. There was also a significant clinical improvement in patients in group 1 compared with those in group 2.

Conclusion: The use of PTX and SSZ as adjuvant therapy in the treatment of PV induced a faster and more significant decrease in the serum level of TNF-alpha, and this decrease was associated with rapid clinical improvement.
Seminal plasma cotinine and insulin-like growth factor-I in idiopathic oligoasthenoteratozoospermic smokers

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Abstract

Objective: To assess seminal plasma insulin-like growth factor-I (IGF-I) levels in cigarette smokers with idiopathic oligoasthenoteratozoospermia (iOAT).

Patients and Methods: In all, 110 men were divided into fertile healthy non-smokers, fertile smokers, infertile non-smokers with iOAT and infertile smokers with iOAT. Semen was analysed, seminal cotinine and seminal IGF-I levels were estimated.

Results: There were significantly lower seminal IGF-I levels in the smokers and in men with iOAT than in controls, and in both iOAT groups. Smokers, either fertile or with iOAT had significantly lower levels than in controls in mean semen volume, sperm production index, percentage of motile sperms, rapid linear forward progressive motility, linear velocity and sperm normal forms. Smokers with iOAT had significantly lower levels than non-smokers with iOAT in mean sperm production index, rapid linear forward progressive motility and linear velocity. In smokers, seminal cotinine was significantly and negatively correlated with both seminal IGF-I and sperm motility, while seminal IGF-I was positively correlated with the percentage of motile spermatozoa.

Conclusion: Smoking effects on sperm variables could be mediated by decreased seminal IGF-I.
Cyclin D1 gene amplification in proliferating haemangioma

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Abstract

Cyclin D1 gene amplification has been reported to promote abnormal endothelial cell proliferation and angiogenesis; these findings constantly present in proliferating haemangiomas. The present study was conducted to evaluate cyclin D1 gene amplification by fluorescence in situ hybridization analysis in tissue biopsies of 22 proliferating haemangiomas from 20 infants. Two significant correlations of cyclin D1 gene amplification with the early onset and the duplication of proliferating haemangiomas have been observed. Moreover, a significant correlation (P<0.05) has been found between the treatment parameters of proliferating haemangiomas with the amplified versus the normal cyclin D1 gene. Proliferating haemangiomas with the amplified cyclin D1 gene required more frequent flashlamp pulsed dye laser treatment sessions at the maximum dosimetry and more frequent intralesional steroid injections at the maximum dose/injection but treatment outcomes were limited. The more frequent post-treatment complications among proliferating haemangiomas with cyclin D1 gene amplification might be attributable not only to the associated more aggressive natural course, but also to the higher treatment parameters needed for effective treatment. Within the limitations of the present study, cyclin D1 gene amplification was seen for the first time in proliferating haemangiomas. We have found that the amplification of the cyclin D1 gene can predict the more aggressive natural course of proliferating haemangiomas and the limited outcome and higher incidence of complications after non-excision treatment modalities. The present findings reflect the possible usefulness of antisense cyclin D1 to improve the therapeutic outcome of proliferating haemangiomas.
Colosigmoid junction: morphohistologic, morphometric, and endoscopic study with identification of colosigmoid canal with sphincter

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Abstract

To study the anatomical structure of the colosigmoid junction, 15 cadaveric specimens were studied morphologically, another 15 histologically, and a morphometric study was done in 10 specimens. Specimens consisted of the descending colon, sigmoid colon, and the colosigmoid junction. Histologic specimens were stained with hematoxylin and eosin and Masson's trichrome stain. Morphometric studies used an image analysis system. The colosigmoid junction was investigated endoscopically in 18 healthy volunteers. A narrow segment having a mean length of 5.2 ± 1.1 cm was identified both externally and internally between the descending and sigmoid colon. We called this segment the colosigmoid canal. Mucosal folds were found crowded in the colosigmoid canal, the lower end of which formed a nipple and was surrounded by a fornix. Histologically, the colosigmoid canal mucosa showed multiple folds. Its circular muscle was thicker than that of the descending or the sigmoid colon and confirmed morphometrically. The longitudinal muscle was thicker in only 4 of 10 specimens. Both the narrowing and the mucosal crowding were verified endoscopically. The colosigmoid junction is the narrow segment between the descending and the sigmoid colon. Histologic, morphometric and endoscopic studies indicated the presence of a sphincter in the colosigmoid canal. A colosigmoid sphincter is suggested to control the passage of colonic contents from the descending colon to the colosigmoid canal as well as to prevent reflux of sigmoid contents into the descending colon.
Accreditation of medical laboratories in Egypt.

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Possible role of telomerase and sFas in pathogenesis of various bladder lesions associated with schistosomiasis.

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Abstract

Objectives: To find the role of telomerase and sFas in the pathogenesis of various bladder lesions associated with schistosomiasis and to correlate the results with clinicopathological parameters.

Design and Methods: One hundred bladder samples were taken, including 65 cases with bladder cancer, 25 cases with chronic cystitis and 10 samples from normal bladder tissue as control. Telomerase activity was measured using TRAP and hTERT techniques. Also, sFas was detected by ELISA technique in serum of all patients.

Results: TRAP activity was detected in 78.5%; there was a significant increase in the number of positive cases in schistosomal urothelial carcinoma (TCC) and squamous cell carcinoma (SCC) compared to control and non-schistosomal urothelial carcinoma at (p<0.01 for each). TRAP activity was positive in 100% of high grade urothelial carcinoma compared to low grade and 92% positive in invasive tumors compared to non invasive tumors. hTERT protein was detected in 75.4% of bladder cancer cases; there was a significant increase in the number of positive cases in schistosomal urothelial carcinoma and SCC compared to control and non schistosomal urothelial carcinoma (p<0.01 for each). hTERT was positive in 100% of high grade and invasive TCC. sFas was detected in 64.6% in bladder cancer cases; there was a significant increase in the number of positive cases in SCC compared to control and non-schistosomal urothelial carcinoma.

Conclusion: There is an increase in telomerase activity and over-expression of hTERT proteins in schistosomal associated bladder cancer (SABC) in comparison to non schistosomal associated bladder cancer (non SABC). Also, there is an increase in sFas level in SCC compared to other the groups. Both, telomerase activity by TRAP and hTERT and sFas may be of significance in the development of SABC. They may also be useful markers to identify bladder carcinoma through telomerase inhibition.
Prognostic value of serum vascular endothelial growth factor in Egyptian females with metastatic triple negative breast cancer.

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Abstract

Objectives: The aim of this work was to explore the value of serum vascular endothelial growth factor-A (VEGF-A) in patients with metastatic triple negative breast cancer (TNBC) treated with chemotherapy. The primary end point was overall survival (OS). Secondary end points were response rate (RR), progression-free survival (PFS) and VEGF-A level at baseline, mid-therapy and at the end of therapy.

Design and Methods: Female patients aged 18 years or above with histologically proven metastatic TNBC were included. Serum VEGF-A levels were measured at baseline, after the 3rd and 6th cycles of FAC chemotherapy regimen (Fluorourcil, Adriamycin, and Cyclophamide).

Results: The overall RR was 57%. Median PFS and OS were 7 and 11.2 months, respectively (95% CI: 4.3-9.7, 18.5-months). Patients whose disease progressed despite therapy had a significantly higher baseline VEGF-A level than those who did not progress. VEGF-A level did not drop with continuation of therapy. Patients with high VEGF-A level had a significantly lower PFS but not OS than patients with low levels.

Conclusion: The outcome of metastatic TNBC is poor with FAC chemotherapy regimen. Alternative chemotherapeutic regimens and novel therapeutic approaches including targeting of VEGF and/or its receptors are warranted.
Clinical significance of anti-cyclic citrullinated peptide antibodies in Egyptian patients with chronic hepatitis C virus genotype IV infection

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Abstract

**Background:** Symmetric polyarthritis associated with hepatitis C virus (HCV) infection frequently displays a clinical picture like rheumatoid arthritis (RA). Antibodies to cyclic citrullinated peptide (CCP) have high specificity for the diagnosis of RA. This study examined the frequency and clinical significance of anti-CCP antibodies in patients with chronic HCV infection, with and without manifestations of joint involvement, compared to RA patients.

**Methods:** Serum anti-CCP antibodies and rheumatoid factor (RF) were evaluated in 30 patients with RA and 47 patients with chronic HCV infection. Of those with HCV infection, 20 patients had chronic HCV infection associated with articular involvement and 27 patients had chronic HCV infection without any articular involvement.

**Results:** Anti-CCP antibody level was positive in 70% of RA patients, 8.5% of HCV-infected patients, and in 20% of HCV patients with articular manifestations. RF was positive in 76% of RA patients and in 60% of HCV patients with articular involvement. Cryoglobulins were found in 29% of HCV-infected patients and in 16% of RA patients. Cryoglobulins were more frequent among HCV patients with articular affection (35%) compared to HCV patients without articular affection (26%).

**Conclusions:** Although anti-CCP antibodies remain a useful diagnostic tool for RA, their interpretation in HCV-infected patients with arthritis should be applied with caution. The possibility that those patients could be prone to develop RA cannot be ruled out. Those patients need careful clinical and radiological follow-up. Further large-scale studies are warranted.
Egyptian glycogen storage disease type III - identification of six novel AGL mutations, including a large 1.5 kb deletion and a missense mutation p.L620P with subtype IIId.

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Abstract

Background: Glycogen storage disease type III (GSD III) is caused by mutations in AGL which encodes for a single protein with two enzyme activities: oligo-1, 4-1, 4-glucantransferase (transferase) and amylo-1, 6-glucosidase. Activity of both enzymes is lost in most patients with GSD III, but in the very rare subtype IIIId, transferase activity is deficient. Since the spectrum of AGL mutations is dependent on the ethnic group, we investigated the clinical and molecular characteristics in Egyptian patients with GSD III.

Methods: Clinical features were examined in five Egyptian patients. AGL was sequenced and AGL haplotypes were determined.

Results: Six novel AGL mutations were identified: a large deletion (c.3481-3588+1417del1525 bp), two insertions (c.1389insG and c.2368insA), two small deletions (c.2223-2224delGT and c.4041deIT), and a missense mutation (p.L620P). p.L620P was found in a patient with IIId. Each mutation was located on a different AGL haplotype.

Conclusions: Our results suggest that there is allelic and phenotypic heterogeneity of GSD III in Egypt. This is the second description of a large deletion in AGL. p.L620P is the second mutation found in GSD IIId.
A pregnant woman with severe diarrhea

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Treatment of aggressive fibromatosis: the experience of a single institution.


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Abstract

Aims: Aggressive fibromatosis is a locally aggressive infiltrative low-grade tumour, although pathologically benign, and it does not metastasise, yet it can cause serious local distressing symptoms by virtue of local destruction and impairment of local function. The aim of this study was to emphasise the role of radiotherapy and adequate surgery in the treatment of fibromatosis in patients presenting with newly diagnosed or recurrent disease and to analyse our treatment results over 15 years for this rare tumour type.

Materials and Methods: Fifty-four patients with confirmed diagnosis of aggressive fibromatosis treated at King Faisal Specialist Hospital between 1990 and 2006 were identified from our local cancer registry. Forty-seven patients had surgery: complete resection (R0) in 20 patients, incomplete surgery (R1/2) in 27 patients, and seven patients had biopsy only. Forty-five patients were treated with radiotherapy: 38 patients were treated with postoperative radiotherapy, three patients were treated with preoperative radiotherapy and four patients had radiotherapy as the only treatment. The radiotherapy dose ranged between 45 and 60Gy (median 50.4Gy). Three patients did not receive any form of treatment apart from biopsy, but were still included in the final analysis.

Results: Fifty-two per cent (28/54 patients) of our patient population had tumour recurrence when first presented to King Faisal Specialist Hospital. The median age was 29.5 years (range 2-63 years). The most common site of involvement was the extremities (28 patients). Among the 54 patients (with primary and recurrent presentation) there were 10 local recurrences, all of which were within the original primary site. The 5-year progression-free survival and overall survival rates for the whole group were 75 and 95%, respectively. Univariate and multivariate Cox regression analysis showed that the depth of invasion significantly affected progression-free survival.

Conclusion: Aggressive fibromatosis is effectively treated with surgery and postoperative radiotherapy. Patients first presenting with tumour recurrence may still have local tumour control comparable with newly diagnosed patients.
Musculoskeletal manifestations in patients with malignant disease.


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Abstract

To detect and describe the incidence of musculoskeletal manifestations in different malignant diseases as well as their relation to the treatment received whether by chemotherapy or radiation therapy. Sixty patients with different malignant diseases were included in this study, 45 with solid tumors and 15 patients with hematological malignancy. The mean age was 46.55 +/- 11.04 years and the mean disease duration was 2 +/- 0.75 years. The patients were fully examined for any rheumatologic involvement, laboratory investigations were performed as well as dual energy X-ray absorptiometry study for bone densitometry. Treatment strategies were assessed including the chemotherapeutics, radiation therapy, and/or surgery. Myalgias and arthralgias were the most frequent followed by flexor tenosynovitis, frozen shoulder, and fibromyalgia syndrome. Hypertrophic osteoarthropathy was seen in five patients, cutaneous vasculitis in two patients as well as arthritis. Osteonecrosis was present in one of the lunate carpal bones of a patient with non-Hodgkin's lymphoma (1.67%) and receiving high dose steroids. Rheumatoid factor was positive in four patients, three of which had hepatitis C virus positivity and cryoglobulins. Anti-neutrophil cytoplasmic antibody was negative in all the studied patients. The bone mineral density was significantly reduced in the patients with malignancy compared to the control. Mild to moderate osteoporosis was present, being more evident in the spine and forearm. The bone loss was higher in those with solid tumors and even more obvious in those receiving aromatase inhibitors. Musculoskeletal manifestations occurring during malignancies and following the treatment represent a significant percentage of symptoms and signs which may raise a clue to differential diagnosis.
Metformin added to insulin therapy for type 1 diabetes mellitus in adolescents

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Abstract

Background: In adolescents with type 1 diabetes, insulin resistance likely plays a role in the deterioration of metabolic control. In type 1 diabetes, addition of metformin to insulin therapy, to improve insulin sensitivity, has been assessed in a few trials involving few patients or in uncontrolled studies of short duration. No systematic reviews are available up to date to summarize the evidence about metformin addition to insulin therapy in adolescents with type 1 diabetes.

Objectives: To assess the effects of metformin added to insulin therapy for type 1 diabetes mellitus in adolescents.

Search Strategy: We searched The Cochrane Library, MEDLINE and EMBASE. We also searched databases of ongoing trials, reference lists of relevant reviews, and we contacted experts, authors and manufacturers.

Selection Criteria: Any randomised controlled trial (RCT) of at least three months duration of treatment comparing metformin added to insulin therapy versus insulin therapy alone in adolescents with type 1 diabetes was included. Cross-over and quasi-randomised controlled trials were excluded.

Data Collection and Analysis: Two reviewers read all abstracts, assessed quality and extracted data independently. Authors were contacted for missing data.

Main Results: Only two trials (60 participants) investigating the effect of metformin added to insulin therapy for three months in adolescents with poorly controlled type 1 diabetes could be included. Meta-analysis was not possible due to the clinical and methodological heterogeneity of data. Both studies suggested that metformin treatment lowered glycosylated haemoglobin A1c (HbA1c) in adolescents with type 1 diabetes and poor metabolic control. Improvements in insulin sensitivity, body composition or serum lipids were not documented in either study, however, one study showed a decrease in insulin dosage by 10%. Adverse effects were mainly gastrointestinal in both studies and hypoglycaemia in one study. No data on health-related quality of life, all-cause mortality or morbidity are currently available.

Authors' Conclusions: There is some evidence suggesting improvement of metabolic control in poorly controlled adolescents with type 1 diabetes, on addition of metformin to insulin therapy. Stronger evidence is required from larger studies, carried out over longer time periods to document the long-term effects on metabolic control, health-related quality of life as well as morbidity and mortality in those patients.
Post-embryo transfer interventions for in vitro fertilization and intracytoplasmic sperm injection patients.

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Abstract

Background: Techniques for embryo transfer (ET) are being developed, optimized, and standardized to provide the best outcomes. This includes methods to reduce the risk of embryo loss following ET.

Objectives: To systematically locate, analyse, and review the best available evidence regarding the effectiveness of post-ET techniques for women undergoing IVF and ICSI.

Search Strategy: Electronic databases; reference lists of primary studies, review articles, relevant publications and conference abstracts.

Selection Criteria: Screening and selection of 2436 possible trial citations were performed independently by two review authors. Four prospective, truly randomised trials met the inclusion criteria. The trials compared two competing post ET interventions or an intervention versus no treatment in women undergoing IVF and ICSI. DATA Collection and Analysis: Two review authors independently collected data and assessed risk of bias using a standardized data extraction form. Individual outcome data were extracted to support an intention-to-treat analysis.

Main Results: The primary outcome, live birth rate, was not reported in any of the included trials. The ongoing pregnancy rate was only available for one trial that compared immediate ambulation with 30 min bed rest, with no evidence of an effect with bed rest (OR 1.00; 95% CI 0.54-1.85). Secondary outcomes were sporadically reported with the exception of clinical pregnancy rate, which was reported in all of the included trials. There was no significant difference between less bed rest and more rest (OR 1.13; 95% CI 0.77-1.67). Nor was there any significant difference between the use of a fibrin sealant and control (OR 0.98; 95% CI 0.54-1.78). There was a significantly higher probability of pregnancy following mechanical closure of the cervix compared with no intervention (OR 1.92; 95% CI 1.40-2.63). The reporting of a proper method of randomisation and allocation concealment was demonstrated in the majority of trials, while only one trial was reported to be blinded.

Conclusions: There is insufficient evidence to support a time for women to remain recumbent following ET, or to support using fibrin sealants. Finally, there is limited evidence to support using mechanical closure of the cervical canal following ET. Well-designed and powered studies are required to determine the true effect, if any, of these and other post ET techniques for women undergoing IVF and ICSI.
Different therapeutic modalities for treatment of melasma.

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Abstract

Background: Chemical peels and topical depigmenting agents have become a popular modality in the treatment of melasma.

Aims: To compare the clinical efficacy of trichloroacetic acid peel 20% vs. Jessner’s solution peel vs. the topical mixture of hydroquinone 2% and kojic acid.

Patients and Methods: Forty five patients with melasma were randomly assigned into three groups of fifteen patients each. Group A received Jessner’s solution peel, group B received trichloroacetic acid peel 20%, and group C received topical hydroquinone 2% and kojic acid. All patients were seen in follow-up period after 16 weeks; clinical evaluation using Melasma Area and Severity Index (MASI) score and photography were recorded before and after treatment and after 16 weeks.

Results: There was a decrease in MASI score in all three groups after treatment and after follow-up period but after treatment MASI score was statistically significantly lower in group A than group C (P = 0.01), and it was also statistically significantly lower in group B than group C (P < 0.001) but there was no statistically significant difference between groups A and B. After the follow-up period, MASI score was statistically significantly lower in group A than group C (P < 0.001), statistically significantly lower in group B than group C (P < 0.001), and statistically significantly lower in group B than group A (P = 0.035). The statistical analysis was done through one-way anova followed by least significant difference (LSD).

Conclusion: Trichloroacetic acid 20% showed better results than Jessner's solution as peeling agent and hydroquinone 2% with kojic acid as a topical agent in the treatment of melasma.
Diagnosis of human brucellosis in Egypt by polymerase chain reaction

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This study aimed to establish an accurate and sensitive polymerase chain reaction (PCR) technique for the diagnosis of active human brucellosis in Egypt. We failed to extract Brucella DNA with a commercial kit, but an extraction kit designed in-house using 2 sets of primers [B4/B5 (223 bp) and JPF/JPR (193 bp)] was successful and more economical. The technique showed high sensitivity, specificity, and accuracy. The PCR positivity increased significantly with increasing seropositivity titres by the standard tube agglutination test and showed 100% positivity in patients with positive blood cultures. We recommend using PCR as an alternative to culture for diagnosis of brucellosis.
Health habits and behavior of adolescent school children, Taif, Saudi Arabia

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The aim of this study was to provide data regarding habits, behavior, problems and needs regarding health in adolescent children from a military community at Al Hada and Taif, Saudi Arabia which could guide school health programmes. We carried out a cross-sectional study on 284 preparatory and secondary school students. Prevalence of smoking was 21.3% among males and 4.9% among females. The rate of overweight was 20.8%. Driving without a license was reported by 68.8% of students, and 82.3% said they didn't fasten seat belts. However, we recorded a high rate of physical activity, 75.0% overall.
Female youth health promotion model in primary health care: a community-based study in rural upper Egypt.

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The health status of underprivileged young females is a global concern. This intervention study in rural Upper Egypt used an integrated approach to develop a model for primary care health promotion services to female adolescents. An initial household survey and focus group discussions identified the health problems of a sample of 671 adolescent women aged 12-20 years recruited from one village. Interventions included training courses for health care providers on relevant health topics and on client-provider interaction skills; community and local authority mobilization; and health education sessions and a special record system for the women. An increase was seen in the utilization of primary care services.
Perioperative assessment of coagulation in paediatric neurosurgical patients using thromboelastography

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**Background and Objective:** Primary brain tumours may be associated with coagulation disorders, which can pose intraoperative and postoperative management difficulties. Thromboelastography is a useful technique for evaluating coagulability. In this study, we evaluated the perioperative coagulation profile using both standard laboratory work and thromboelastography in paediatric patients undergoing craniotomy for primary brain tumours.

**Methods:** Forty paediatric patients were enrolled in the study. All patients received standard anaesthesia. Blood was analysed for both standard laboratory analysis and thromboelastography at three points for each patient: preoperatively, intraoperatively and postoperatively. Postoperative patients were divided into two groups according to the occurrence or nonoccurrence of postoperative haematomas: nonhaematoma group and haematoma group. The standard blood analysis and thromboelastography values for both groups were compared.

**Results:** Perioperative standard blood analysis was within normal limits for all patients, with no significant difference between both groups. In the nonhaematoma group, thromboelastography values were indicative of a hypercoagulable state that started intraoperatively and continued into the first postoperative day. In the aematoma group, thromboelastography values were indicative of a hypocoagulable state that was evident in the preoperative thromboelastography values and continued into the intraoperative as well as the postoperative period.

**Conclusion:** Thromboelastography may be useful in the perioperative assessment and monitoring of coagulation in paediatric neurosurgical patients and helps in identifying patients at increased risk of bleeding or thromboembolic events.
Efficacy and safety of deferasirox, an oral iron chelator, in heavily iron-overloaded patients with beta-thalassaemia: the ESCALATOR study.


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Abstract

Objective: Many patients with transfusional iron overload are at risk for progressive organ dysfunction and early death and poor compliance with older chelation therapies is believed to be a major contributing factor. Phase II/III studies have shown that oral deferasirox 20-30 mg/kg/d reduces iron burden, depending on transfusional iron intake.

Methods: The prospective, open-label, 1-yr ESCALATOR study in the Middle East was designed to evaluate once-daily deferasirox in patients > or = 2 yr with beta-thalassaemia major and iron overload who were previously chelated with deferoxamine and/or deferiprone. Most patients began treatment with deferasirox 20 mg/kg/d; doses were adjusted in response to markers of over- or under-chelation. The primary endpoint was treatment success, defined as a reduction in liver iron concentration (LIC) of > or = 3 mg Fe/g dry weight (dw) if baseline LIC was > or = 10 mg Fe/g dw, or final LIC of 1-7 mg Fe/g dw for patients with baseline LIC of 2 to <10 mg Fe/g dw.

Results: Overall, 233/237 enrolled patients completed 1 yr's treatment. Mean baseline LIC was 18.0 +/- 9.1 mg Fe/g dw, while median serum ferritin was 3356 ng/mL. After 1 yr's deferasirox treatment, the intent-to-treat population experienced a significant treatment success rate of 57.0% (P = 0.016) and a mean reduction in LIC of 3.4 mg Fe/g dw. Changes in serum ferritin appeared to parallel dose increases at around 24 wk. Most patients (78.1%) underwent dose increases above 20 mg/kg/d, primarily to 30 mg/kg/d. Drug-related adverse events were mostly mild to moderate and resolved without discontinuing treatment.

Conclusions: The results of the ESCALATOR study in primarily heavily iron-overloaded patients confirm previous observations in patients with beta-thalassaemia, highlighting the importance of timely deferasirox dose adjustments based on serum ferritin levels and transfusional iron intake to ensure patients achieve their therapeutic goal of maintenance or reduction in iron burden.
Clinical findings and cholinesterase levels in children of organophosphates and carbamates poisoning.

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Abstract

Introduction: Exposure to organophosphate and carbamate insecticides inhibits cholinesterase activity and interferes with synaptic transmission both centrally and peripherally at muscarinic receptors and nicotinic receptors. The study reported the usefulness of plasma cholinesterase ChE activity assays for diagnosis and the management of organophosphate and carbamate toxicity in children.

Methods: A retrospective study was conducted on children with organophosphate and carbamate poisoning. Forty-seven patients were included. The diagnosis was confirmed by measuring plasma cholinesterase levels. Atropine was given intravenous (0.02 mg/kg) and repeated until secretions were controlled. Obidoxime chloride was administered as 4-8 mg/kg/dose for children with organophosphate poisoning and to those in whom the ingested material was unidentified on admission.

Discussion: Most of the patients showed marked reactivation in plasma ChE within several hours and recovered completely within 72h of admission. Complications were observed in 17 patients (36%). Mechanical ventilatory support was required in six patients. The duration intensive care stay was 3 ± 2.4 days.

Conclusion: Low plasma ChE levels support the diagnosis of insecticides poisoning, but no significant association is present between the severity of poisoning and plasma ChE levels. Atropine should be used as soon as possible to counteract the muscarinic effects. Appropriate management and early recognition of the complications may decrease the mortality rate.
Differentiation of osteoporotic and neoplastic vertebral fractures by chemical shift \{in-phase and out-of phase\} MR imaging

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Abstract

Objective: The Objective of this study was to establish the cut-off value of the signal intensity drop on chemical shift magnetic resonance imaging (MRI) with appropriate sensitivity and specificity to differentiate osteoporotic from neoplastic wedging of the spine.

Patients and Methods: All patients with wedging of vertebral bodies were included consecutively between February 2006 and January 2007. A chemical shift MRI was performed and signal intensity after (in-phase and out-phase) images were obtained. A DXA was performed in all.

Results: A total of 40 patients were included, 20 with osteoporotic wedging (group 1) and 20 neoplastic (group 2). They were 21 males and 19 females. Acute vertebral collapse was observed in 15 patients in group 1 and subacute collapse in another 5 patients, while in group 2, 11 patients showed acute collapse and 9 patients (45%) showed subacute vertebral collapse. On the chemical shift MRI a substantial reduction in signal intensity was found in all lesions in both groups. The proportional changes observed in signal intensity of bone marrow lesions on in-phase compared with out-of-phase images showed significant differences in both groups (P<0.05). At a cut-off value of 35%, the observed sensitivity of out-of-phase images was 95%, specificity was 100%, positive predictive value was 100% and negative predictive value was 95.2%.

Conclusion: A chemical shift MRI is useful in order to differentiate patients with vertebral collapse due to underlying osteoporosis or neoplastic process.
Laparoscopic augmentation ileocystoplasty: results and outcome.

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Abstract

Background: Routine use of laparoscopic augmentation ileocystoplasty has not yet been established.

Objectives: To assess the outcome of laparoscopic augmentation ileocystoplasty.

Design, Setting and Participants: Twenty-three patients underwent laparoscopic augmentation ileocystoplasty for hypocompliant bladder.

Intervention: Bladder dissection and reconstruction of the ileovesical anastomosis were performed laparoscopically, whereas the ileal pouch was prepared extracorporeally through a small 3- to 4-cm muscle-splitting incision.

Measurements: Patient data, operative details, and follow-up were recorded. Urodynamic evaluation was performed preoperatively and after 12 mo, taking the bladder capacity and the maximum detrusor pressure as a measure for the outcome of the procedure.

Results and Limitations: All cases were completed laparoscopically, with a mean operative time 202 min; mean hospital stay 5 d, and mean urethral catheter duration 11 d. After 12 mo, the estimated bladder volume increased from a mean 111 ml to 788 ml (p<0.01), whereas the maximum detrusor pressure dropped from a mean 92 cm H(2)O to 15 cm H(2)O (p<0.01). During a mean follow-up of 39 mo, two long-term complications have been reported: bladder stone and spontaneous rupture of the augmented bladder due to neglected clean intermittent self-catheterization.

Conclusions: Laparoscopic augmentation ileocystoplasty is a safe procedure, technically feasible and with favourable.
Recurrence of hepatitis C virus (genotype 4) infection after living-donor liver transplant in Egyptian patients.


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Abstract

Objectives: The recurrence of hepatitis C virus infection after liver transplant is common and may endanger both graft and patient survival. We investigated the frequency and outcome of and risk factors for the recurrence of that virus after living-donor liver transplant in hepatitis C virus positive recipients.

Materials and Methods: Seventy-four adult hepatitis C virus positive subjects were monitored for 36 months after living-donor liver transplant and demographic and laboratory data for the recipients and donors were evaluated. Recurrent hepatitis C virus infection was diagnosed on the basis of viral replication revealed by polymerase chain reaction after transplant, elevated levels of transaminases, and the results of liver biopsy.

Results: Hepatitis C virus recurrence was identified in 31.1% of the patients studied. Histopathologic recurrence was mild, and 91% of the subjects had a fibrosis score of ≤ F2. No recipient exhibited cirrhosis or clinical decompensation during followup. Recurrent hepatitis C virus infection was associated with pretransplant and posttransplant viral load and antibody positive to hepatitis B core antigen. No other risk factors (sex, donor or recipient age, pretransplant Child-Pugh or Model for End-Stage Liver Disease scores, immunosuppressive drug therapy, and treatment with pulse steroids) were significantly correlated with the frequency of hepatitis C virus recurrence, the grade of the histologic activity index, or the stage of fibrosis.

Conclusions: In living-donor liver transplant recipients, patient and graft survival rates associated with hepatitis C virus (genotype 4) related cirrhosis were comparable to those in deceased-donor liver transplant recipients reported in the literature. Recurrent infection with hepatitis C virus after living-donor liver transplant was mild. After transplant, a higher viral load and the presence of antibody to hepatitis B core antigen could be risk factors for hepatitis C virus recurrence. Long-term follow-up in a large number of patients is required.
The multiple faces of nicotine and its implications in tissue and wound repair.

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Abstract

Nicotine, one of the thousands of chemicals in cigarette smoke has a highly debated effect on cell proliferation and tissue healing. Recent studies documented its pro-angiogenesis effects by stimulating endothelial cell alpha7-non-neronal nicotinic acetyl choline receptors (alpha7 N-nACHR). It is well known that individuals who smoke or have diabetes experience impaired wound healing although for different reasons. This review evaluates several current studies relating to nicotine's ability to mediate cellular activation, migration and angiogenesis in attempts to correlate these data with nicotine's ability to repair wounds in ischaemic tissue. While its beneficial effects are still under investigation, important findings regarding nicotine's acceleration of atherosclerosis, tumor angiogenesis, cell proliferation e and resistance to apoptosis put its systemic use into question. Based on the good and bad sides of nicotine, it is recommended to restrict its utility to local applications.
Erectile dysfunction, cardiovascular diseases and depression: interaction of therapy.

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Abstract

Several studies have revealed the intimate associations between erectile dysfunction (ED), ischemic heart disease (IHD) and depression. Whether the physicians should also screen for the other two components when a patient presents with one component of this triad is still an important question to be answered. These three components had been classified as independent medical conditions managed by unrelated medical services. Recently, the potential effect of medications of each condition on the other conditions had gained a lot of interest. The aim of the current review is to discuss the integrative view of association between cardiovascular diseases, erectile dysfunction and depression, and to address the two direction impact of pharmacotherapy for IHD and depression on erectile function.
Freezing and crushing technique: a new concept for the extraction of testicular spermatozoa from men with nonobstructive azoospermia.

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Abstract

Ninety samples were harvested from 20 men with nonobstructive azoospermia and divided into two fractions; the first fraction was minced, and the second fraction was exposed to the freezing and crushing (FC) technique. The sperm recovery rate was found to be 21/30 (70%) in the FC fractions compared with 8/30 (26.6%) in the mincing fractions.
Luteal phase clomiphene citrate for ovulation induction in women with polycystic ovary syndrome: a novel protocol.

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Abstract

**Objective:** To test a novel protocol of luteal phase administration of clomiphene citrate (CC) for ovulation induction in women with polycystic ovary syndrome (PCOS).

**Design:** Prospective, randomized, controlled trial.

**Setting:** University teaching hospital and private practice settings.

**Patient(S):** The study comprised a total of 212 women (438 cycles) with PCOS.

**Intervention(S):** Patients in the early CC group received 100 mg of CC daily starting the next day after finishing medroxyprogesterone acetate (MPA) for 5 days (110 patients, 227 cycles), whereas the patients in the late CC group received 100 mg of CC daily for 5 days starting on day 3 of the menses (102 patients, 211 cycles).

**Main Outcome Measure(S):** Number of growing and mature follicles, serum E(2) (in picograms per milliliter), serum P (in nanograms per milliliter), endometrial thickness (in millimeters), occurrence of pregnancy and miscarriage.

**Result(S):** There were more ovulating patients in the early CC group (59.1% vs. 51.9%), without significant differences. The total number of follicles and the number of follicles >or=14 mm and >or=18 mm during stimulation were significantly greater in the early CC group. The endometrial thickness at the time of hCG administration was significantly greater in the early CC group (9.1 +/- 0.23 vs. 8.2 +/- 0.60 mm). Serum E(2) and P were not significantly different between the two groups. Pregnancy occurred in 23/110 cycles in the early CC group (20.9%) and 16/102 cycles (15.7%) in the late CC group; the difference was not statistically significant. The miscarriage rate was similar in the two groups.

**Conclusion(S):** Early administration of CC in patients with PCOS will lead to more follicular growth and endometrial thickness, which might result in a higher pregnancy rate (PR).
Bilateral epididymal sarcoidosis.

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

Abstract

Objective: To report a case of bilateral epididymal sarcoidosis.
Design: Case report.
Setting: University hospital.
Patient(s): An azoospermic 29-year-old Caucasian male who had had an illness 2 years earlier with acute onset and progressive course of weight loss, fatigue, and cough with painless subcutaneous nodules on the arms, upper thighs, and eyelids.
Intervention(s): Physical examination, scrotal ultrasonography, scrotal magnetic resonance imaging, chest x-ray and computed tomography (CT), urine and semen Ziehl-Neelsen stain, and epididymal/testicular biopsies.
Main Outcome Measure(s): Clinical, laboratory, radiologic and histopathologic data.
Result(s): The patient had bilateral epididymal firm masses with normal sized testes and bilateral enlarged, firm, nonpainful inguinal lymph nodes. Scrotal ultrasonography showed diffuse, bilateral, epididymal enlargement with heterogeneous echo pattern and increased vascularity. Scrotal magnetic resonance imaging revealed diffuse, enlarged epididymis with no focal masses. The chest x-ray revealed prominent hilar shadows, and the chest computed tomography showed mediastinal and hilar lymphadenopathy. Urine and semen Ziehl-Neelsen stains were negative for acid-fast bacilli. Epididymal histopathology revealed multiple noncaseating epithelioid granulomas with concentric arrangement of reticular fibers by reticulin stain.
Conclusion(s): Scrotal involvement in sarcoidosis with its variable presentations should be considered.
Highly purified hMG achieves better pregnancy rates in IVF cycles but not ICSI cycles compared with recombinant FSH: a meta-analysis

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Abstract

Objective: Human menopausal gonadotropin (hMG) was demonstrated to be superior to recombinant FSH (rFSH) regarding clinical outcomes. It is not clear whether this change in the evidence was due to the introduction of highly purified (HP) hMG.

Design: Systematic review of properly randomised trials comparing HP-hMG vs. rFSH in women undergoing in vitro fertilisation (IVF) and/or intracytoplasmic sperm injection (ICSI). A meticulous search was performed using electronic databases and hand searches of the literature.

Results: Six trials (2371 participants) were included. Pooling of the trials demonstrated that the probability of clinical pregnancy following HP-hMG administration was higher than rFSH and reached borderline significance (odd ratio (O.R) = 1.21, 95% confidence interval (CI) = 1.00-1.45), but the ongoing pregnancy/live-birth rate was not statistically different between the two drugs, although it showed strong trends towards improvement with HP-hMG (O.R = 1.19, 95% CI = 0.98 to 1.44). Subgroup analysis comparing both drugs in IVF cycles demonstrated a statistically significant better ongoing pregnancy/live-birth rate in favour of HP-hMG (O.R = 1.31, 95% CI = 1.02 to 1.68). On the other hand, there was almost an equal ongoing pregnancy/live-birth rate in ICSI cycles (OR = 0.98, 95% CI = 0.7 to 1.36).

Conclusions: HP-hMG should be preferred over rFSH in women undergoing assisted reproduction, especially if IVF is the intended method of fertilisation.
Reduction clitoro-labioplasty versus clitoro-labiectomy in managing adult onset clitoro-labiomegaly

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Abstract

Objectives: To compare a new procedure of reduction clitoro-labioplasty to clitoro-labiectomy in the management of adult onset clitoro-labiomegaly, and to show the disadvantages of the latter procedure that produces female genital mutilation and sexual dysfunction.

Methods: This controlled, descriptive, comparative and prospective cohort study was performed at Kasr El-Aini School of Medicine, Cairo University, Egypt. 47 cases of clitoro-labiomegaly, 12 with known causes of intersex, were diagnosed and treated by reduction clitoro-labioplasty. In addition, a control group of 53 more cases, 6 with known causes of intersex, were followed after treatment by clitoro-labiectomy. Clitoro-labioplasty was performed by excision of the anterior part of the fused corpora after separation at the glans-corporal junction and a reduction in the size of the remaining part of the corpora to reform a normal clitoral size. The neurovascular bundles were essentially preserved during this procedure. The protruded parts of the labia minora are then excised to preserve their normal dimensions. The main outcome measures were the postoperative anatomical result, patient's satisfaction, the pre- and postoperative sex scoring, and sexuality.

Results: Restoration of normal anatomy was successfully obtained after clitoro-labioplasty compared to partial or complete loss of these sensitive parts after clitoro-labiectomy. In addition, significant operative and postoperative complications were recorded in 27 cases with clitoro-labiectomy compared to none of the clitoro-labioplasty cases. The sex scores and sexuality improved significantly after the clitoro-labioplasty operation compared to clitoro-labiectomy (p < 0.005). Normalization of the sex scores and sexuality was found to be significantly related to preservation of critical clitoral length necessary for producing clitoral orientation and interest in sexuality.

Conclusion: The new clitoro-labioplasty technique is able to preserve proper clitoral and labial anatomy and restore normal sexuality. Therefore it must be considered an essential line of treatment for clitoro-labiomegaly.
Prevention of hemoglobinopathies in Egypt.

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Abstract

The hemoglobin disorders are the most common clinically serious single gene disorders in the world. In Egypt, beta-thalassemia is the most common type with a carrier rate varying from 5.3 to $>9\%$ and a gene frequency of 0.03. So, it was estimated that 1,000/1.5 million per year live births will suffer from thalassemia disease in Egypt (total live births 1,936,205 in 2006). beta-Thalassemia creates a social and financial burden for the patients' family and the Egyptian government. The high frequency of beta-thalassemia carriers with increasing rate of newly born cases is a pressing reason for the importance to develop prevention program for beta-thalassemia in Egypt. Sickle-cell disease (SCD) is not frequent in Egypt except in the Oases where the carrier rate varies from 9 to 22\%. Our objectives were to provide an in-depth analysis of the current status of hemoglobinopathies in Egypt and what we need for prevention of these diseases.
Abnormal glucose tolerance in beta-thalassemia: assessment of risk factor

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Abstract

In beta-thalassemia (beta-thal) major, the pathogenetic mechanisms leading from siderosis to diabetes are poorly understood. We assessed the glycometabolic status in transfusion-dependent Egyptian beta-thal patients and evaluated their possible risk factors for abnormal glucose tolerance (AGT). An oral glucose tolerance test (OGTT) was done on 54 multi-transfused patients and 28 age-matched normal controls, measuring their serum insulin levels at 0 and 120 min. Insulin sensitivity and insulin release indices were calculated. Indicators of iron overload and liver status were recorded. Thirteen patients (24.1%) had AGT. Cases with AGT had significantly higher mean postprandial insulin, fasting insulin resistance index (FIRI) and homeostasis model assessment (HOMA) insulin resistance (IR), p = 0.0001 for all, and significantly lower mean HOMA beta cell-IR, p = 0.007, when compared with normal glucose tolerance (NGT) cases. Abnormal glucose tolerance is common in multi-transfused beta-thal major patients and could be attributed to early impaired beta-cell function with increasing IR.
An electronic infrastructure for research and treatment of the thalassemias and other hemoglobinopathies: the Euro- mediterranean ITHANET project.


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Abstract

Hemoglobin (Hb) disorders are common, potentially lethal monogenic diseases, posing a global health challenge. With worldwide migration and intermixing of carriers, demanding flexible health planning and patient care, hemoglobinopathies may serve as a paradigm for the use of electronic infrastructure tools in the collection of data, the dissemination of knowledge, the harmonization of treatment, and the coordination of research and preventive programs. ITHANET, a network covering thalassemias and other hemoglobinopathies, comprises 26 organizations from 16 countries, including non-European countries of origin for these diseases (Egypt, Israel, Lebanon, Tunisia and Turkey). Using electronic infrastructure tools, ITHANET aims to strengthen cross-border communication and data transfer, cooperative research and treatment of thalassemia, and to improve support and information of those affected by hemoglobinopathies. Moreover, the consortium has established the ITHANET Portal, a novel web-based instrument for the dissemination of information on hemoglobinopathies to researchers, clinicians and patients. The ITHANET Portal is a growing public resource, providing forums for discussion and research coordination, and giving access to courses and databases organized by ITHANET partners. Already a popular repository for diagnostic protocols and news related to hemoglobinopathies, the ITHANET Portal also provides a searchable, extendable database of thalassemia mutations and associated background information. The experience of ITHANET is exemplary for a consortium bringing together disparate organizations from heterogeneous partner countries to face a common health challenge. The ITHANET Portal as a web-based tool born out of this experience amends some of the problems encountered and facilitates education and international exchange of data and expertise for hemoglobinopathies.
Fetal globin induction in beta-thalassemia.

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Abstract

Thalassemia patients with persistently high levels of fetal globin typically have less severe anemia, have milder clinical syndromes, and are often transfusion independent. Therefore, the search for molecules exhibiting the property of inducing gamma-globin gene expression and fetal hemoglobin (HbF) production is of great interest. Different pharmacological agents have been studied, namely erythropoietin, short chain fatty acids and cytotoxic agents, azacytidine, and hydroxycarbamide. Hemoglobin F inducers from natural plants, such as angelicin and resveratrol, are powerful inducers of erythroid differentiation and increase HbF in erythroid progenitors of thalassemia patients. Induction of HbF in beta-thalassemia patients is expected to be crucial for developing countries unable to sustain the high cost of clinical management of beta-thalassemia.
Liver fibrosis: consensus recommendations of the Asian Pacific Association for the Study of the Liver (APASL).


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

Abstract

Liver fibrosis is a common pathway leading to cirrhosis, which is the final result of injury to the liver. Accurate assessment of the degree of fibrosis is important clinically, especially when treatments aimed at reversing fibrosis are being evolved. Liver biopsy has been considered to be the "gold standard" to assess fibrosis. However, liver biopsy being invasive and, in many instances, not favored by patients or physicians, alternative approaches to assess liver fibrosis have assumed great importance. Moreover, therapies aimed at reversing the liver fibrosis have also been tried lately with variable results. Till now, there has been no consensus on various clinical, pathological, and radiological aspects of liver fibrosis. The Asian Pacific Association for the Study of the Liver set up a working party on liver fibrosis in 2007, with a mandate to develop consensus guidelines on various aspects of liver fibrosis relevant to disease patterns and clinical practice in the Asia-Pacific region. The process for the development of these consensus guidelines involved the following: review of all available published literature by a core group of experts; proposal of consensus statements by the experts; discussion of the contentious issues; and unanimous approval of the consensus statements after discussion. The Oxford System of evidence-based approach was adopted for developing the consensus statements using the level of evidence from 1 (highest) to 5 (lowest) and grade of recommendation from A (strongest) to D (weakest). The consensus statements are presented in this review.
A study comparing chemical peeling using modified jessner's solution and 15%trichloroacetic Acid versus 15% trichloroacetic Acid in the treatment of melasma.

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Abstract

Background: Melasma is a symmetric progressive hyperpigmentation of the facial skin that occurs in all races but has a predilection for darker skin phenotypes. Depigmenting agents, laser and chemical peeling as classic Jessner's solution, modified Jessner's solution and trichloroacetic acid have been used alone and in combination in the treatment of melasma.

Objectives: The aim of the study was to compare the therapeutic effect of combined 15% Trichloroacetic acid (TCA) and modified Jessner's solution with 15% TCA on melasma.

Materials and Methods: Twenty married females with melasma (epidermal type), with a mean age of 38.25 years, were included in this study. All were of skin type III or IV. Fifteen percent TCA was applied to the whole face, with the exception of the left malar area to which combined TCA 15% and modified Jessner's solution was applied.

Results: Our results revealed statistically highly significant difference between MASI Score (Melasma Area and Severity Index) between the right malar area and the left malar area.

Conclusion: Modified Jessner's solution proved to be useful as an adjuvant treatment with TCA in the treatment of melasma, improving the results and minimizing postinflammatory hyperpigmentation.
Quantitation of mast cells and collagen fibers in skin tags.

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

Abstract

Background: Skin tags are common benign skin tumors usually occurring on the neck and major flexors of elder people.

Aims: The aim of this study is to perform quantitation of mast cells and collagen fibers in skin tags and normal skin in diabetics and nondiabetics, to find a possible correlation between mast cells and collagen fibers in the pathogenesis of skin tags.

Methods: Thirty participants with skin tags were divided into two groups (15 diabetic and 15 nondiabetic). Three biopsies were obtained from one anatomical site: A large skin tag, a small skin tag, and adjacent normal skin. Mast cells stained with Bismarck brown were counted manually in ten different fields of each section with magnification x1000 and the average count was correlated with the percentage of mean collagen area in five fields done by the image analyzer.

Results: A statistically significant correlation between mast cell count and percentage of collagen mean area was detected in both studied groups (except in large skin tags of the nondiabetic group).

Conclusion: The positive correlation between mast cell count and percentage of collagen mean area suggests the critical role of mast cells in the etiogenesis of skin tags through its interaction with fibroblasts.
Treatment of periocular hyperpigmentation due to lead of kohl (surma) by penicillamine: a single group non-randomized clinical trial.

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Abstract

Background: Periocular hyperpigmentation is a condition in which skin of eyelids become darker in color than the normal surrounding skin. Lead and other heavy metals produce increased pigmentation because of deposition of metal particles in the dermis and increased epidermal melanin production.

Aims: This study was conducted to evaluate the dual effect of chelation therapy in treating periocular hyperpigmentation and lead toxicity.

Methods: The study population consisted of nine females complaining from dark coloration of their eyelids. The nine females were continuously using kohl as eyeliner. Lead levels in conjunctiva and serum before and after D-penicillamine (D-PCN) oral administration were estimated in relation to vertical, horizontal length, and degree of hyperpigmentation score.

Results: Highly significant P values (0.000) were obtained as regard to the conjunctival lead levels, serum lead levels, horizontal length, and degree of darkness score before and after D-PCN therapy. A less significant P value (0.040) was recorded as regard to the vertical length.

Conclusion: Regardless other causes, this study spots the light on a new concept for periocular hyperpigmentation from lead toxicity in adult females using kohl and suggests D-PCN in a low divided dose (750 mg/day) for its treatment.
Comparative evaluation of long pulse alexandrite laser and intense pulsed light systems for pseudofolliculitis barbae treatment with one year of follow up.

Leheta TM.

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Abstract

Background: Existing remedies for controlling pseudofolliculitis barbae (PFB) are sometimes helpful; however the positive effects are often short lived. The only definitive cure for PFB is permanent removal of the hair follicle.

Aims: Our aim was to compare the efficacy of the Alexandrite laser with the intense pulsed light system in the treatment of PFB and to follow up the recurrence.

Methods: Twenty male patients seeking laser hair removal for the treatment of PFB were enrolled in this study. One half of the face was treated with the long-pulse Alexandrite laser and the other half was treated with the IPL system randomly. The treatment outcome and any complications were observed and followed up for one year.

Results: All patients exhibited a statistically significant decrease in the numbers of papules. Our results showed that the Alexandrite-treated side needed seven sessions to reach about 80% improvement, while the IPL-treated side needed 10-12 sessions to reach about 50% improvement. During the one year follow up period, the Alexandrite-treated side showed recurrence in very minimal areas, while the IPL-treated side showed recurrence in bigger areas.

Conclusions: Our results showed that both systems might improve PFB but Alexandrite laser was more effective at reducing PFB than IPL.
Improvement of steatosis after interferon therapy in HCV genotype 4 is related to weight loss.


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Abstract

Introduction: Hepatic steatosis is common in patients with chronic hepatitis C virus (HCV) infection, and its occurrence may be related to both host and viral factors. Relationship between improvement in steatosis and response to anti-viral treatment remains unclear. This study assessed the factors associated with steatosis in patients infected with genotype 4 HCV, and to correlate degree of changes in steatosis with host factors and response to treatment.

Methods: Records of 175 patients with chronic genotype 4 HCV infection, who had received interferon and ribavirin combination therapy, were reviewed retrospectively to extract data on body mass index (BMI), presence of diabetes mellitus, and liver histology findings. Paired BMI data and liver biopsies (pre- and 24-weeks post-treatment) were available in 86 patients. Baseline steatosis and its changes (before and after treatment) were the dependent variables in a univariate and multivariate analyses.

Results: Steatosis was found in 88/175 (50.3%) of baseline biopsies. Its presence was related to baseline BMI (r=0.33, P<0.01), but not with viral load, or grade of liver inflammation or fibrosis. On follow up, improvement in steatosis was significantly associated with degree of weight loss but not with response to anti-viral treatment. Conclusion: Steatosis is common in genotype 4 HCV infection, and its presence appears to be related to high BMI, but not to viral load or degree of liver injury.
Electromyographic study of ejaculatory mechanism

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Abstract

Cavernosus muscle (CM), seminal vesicle (SV) and vasal ampullary (VA) contractions at ejaculation are said to be reflex mechanisms (ejaculatory reflex), which have been scarcely dealt with in the literature. We investigated the hypothesis that contraction of the CMs, SVs and VA at ejaculation is a reflex action. The electromyographic (EMG) activity of CM, SV and VA during ejaculation was recorded in 28 healthy men. The test was repeated after separate anaesthetization of the glans penis (GP), CMs, SVs, and VA in the pre-ejaculatory period. Latent ejaculatory time (LET) was calculated. CMs showed no EMG activity until rigid erection phase was reached. SVs and VA exhibited resting EMG activity which increased gradually with different stages of erection. At ejaculation, CMs, SVs and VA showed two to four intermittent contractions. The mean LET was 1.3 ± 0.2 sec. GP anaesthetization led to the disappearance of CM, SV and VA EMG activity at ejaculation, while bland gel did not affect EMG activity. CMs, SVs and VA when anaesthetized in the pre-ejaculatory period exhibited no EMG activity at ejaculation, while saline did not affect EMG activity. Increased EMG activity of CM, SV and VA apparently denotes increase in their contractile activity. CM, SV and VA contraction on GP stimulation and ejaculation are assumed to be reflex actions and are mediated through the ‘glans-cavernosovesicular reflex’ (GCVR) which presumably represents the ejaculatory reflex. Changes in LET or evoked response would indicate a defect in the reflex pathway. The GCVR might act as an investigative tool in diagnosing erectile dysfunction, provided further studies are performed in this respect.
Erectile function in men with diabetes type 2: correlation with glycemic control.

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Abstract

Men with diabetes have an increased risk for erectile dysfunction (ED) than those without diabetes. The diabetes control and complications trial clearly showed that better long-term control of blood glucose in diabetes type 1 is associated with decreased frequency and delayed the onset of microvascular complications. The aim of this study is to explore the role of glycemic control and its correlation to sexual function in patients with diabetes type 2. One hundred patients were selected for the study according to the following criteria: all the cases were presenting with diabetes type 2 as a single risk factor for ED, age being between 35 and 50 years and free of liver and kidney failure, and blood dyscrasia. The selected patients were evaluated for sexual function by asking the patients to complete the abridged form of the International Index of Erectile Function (IIEF). The evaluation of glycemic control was based on the measurement of hemoglobin A1c (HbA1c) values. Our results showed that the level of HbA1c is significantly higher with declining degrees of potency (P-value=0.003). Also, there is an association between potency degree and glycemic control (P=0.002). We conclude that glycemic control is independently and inversely associated with ED in men with diabetes type 2.
Effect of intra-abdominal instillation of lidocaine during minor laparoscopic procedures.

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Objective: To assess the effect of intraperitoneal instillation of lidocaine on postoperative pain after minor gynecological laparoscopic surgery.

Method: A prospective, double-blind, placebo-controlled clinical trial of 75 patients undergoing gynecological laparoscopy randomized to receive intraperitoneal instillation of either 120 mg of lidocaine (n=60) or normal saline (n=15) at the end of surgery. Postoperative pain was evaluated by Wong-Baker Faces Pain Rating Scale (WBFS) score at 15 min and at 1, 2, 4, 12, and 24 h postoperatively.

Results: The WBFS score was lower for the lidocaine group than for the control group at 1, 2, and 4 hours after surgery (P=0.023). There was no difference in WBFS scores between the 2 groups at 15 min (P=0.46), 12 h (P=0.13), and 24 h (P=0.07) after surgery.

Conclusion: Intraperitoneal instillation of lidocaine was effective in reducing postoperative pain after minor gynecological laparoscopic procedures.
Explaining ionic liquid water solubility in terms of cation and anion hydrophobicity.

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Abstract

The water solubility of salts is ordinarily dictated by lattice energy and ion solvation. However, in the case of low melting salts also known as ionic liquids, lattice energy is immaterial and differences in hydrophobicity largely account for differences in their water solubility. In this contribution, the activity coefficients of ionic liquids in water are split into cation and anion contributions by regression against cation hydrophobicity parameters that are experimentally determined by reversed phase liquid chromatography. In this way, anion hydrophobicity parameters are derived, as well as an equation to estimate water solubilities for cation-anion combinations for which the water solubility has not been measured. Thus, a new pathway to the quantification of aqueous ion solvation is shown, making use of the relative weakness of interactions between ionic liquid ions as compared to their hydrophobicities.
A case of Schwartz-Jampel syndrome with cleft palate

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Abstract

Schwartz-Jampel syndrome is a rare inherited autosomal recessive disorder characterized by generalized myotonia, joint contractures, skeletal abnormalities and facial dysmorphism. The gene defect involves the 1p34-p36.1 region of chromosome 1. Also, one of the candidate genes for orofacial clefting is the 1p36 region. Cleft palate is the most common congenital anomaly in the head and neck. Despite both diseases share a genetic defect in chromosome 1p36 region, the association of both conditions has not yet been investigated. Feeding problems due to the presence of the cleft may add to the growth retardation that is already present in those patients, so palatoplasty is mandatory. We described a case of Schwartz-Jampel syndrome with cleft palate.
Transoral endoscopic adenoidectomy.

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Abstract

**Objective.** Adenoid curette guided by an indirect transoral mirror and a headlight is a simple and quick procedure that has already been in use for a long time, but this method carries a high risk of recurrence unless done by a well-experienced surgeon. The purpose of this paper was to evaluate the efficacy of transoral endoscopic adenoidectomy in relieving the obstructive nasal symptoms.

**Methods.** 300 children underwent transoral endoscopic adenoidectomy using the classic adenoid curette and St Claire Thomson forceps with a 70( composite function( Hopkins 4-mm nasal endoscope introduced through the mouth and the view was projected on a monitor. Telephone questionnaire was used to follow-up the children for one year. Flexible nasopharyngoscopy was carried out for children with recurrent obstructive nasal symptoms to detect adenoid rehypertrophy.

**Results.** No cases presented with postoperative complications. Only one case developed recurrent obstructive nasal symptoms due to adenoid regrowth and investigations showed that he had nasal allergy which may be the cause of recurrence. **Conclusion.** Transoral endoscopic adenoidectomy is the recent advancement of classic curettage adenoidectomy with direct vision of the nasopharynx that enables the surgeon to avoid injury of important structures as Eustachian tube orifices, and also it gives him the chance to completely remove the adenoidal tissues.
Bipolar diathermy versus cold dissection in paediatric tonsillectomy.

Hesham A.

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Abstract

Objectives: To compare bipolar diathermy with cold dissection in paediatric tonsillectomy.

Methods: One hundred and fifty children were randomized equally into bipolar diathermy tonsillectomy (BDT) and cold dissection tonsillectomy (CDT). Operative time, operative blood loss, postoperative pain, diet intake, activity level and complications were compared in the 2 groups.

Results: The 2 groups were comparable in age and sex distribution. Operative time and blood loss was significantly less in the diathermy group. No significant difference in the postoperative pain except on the 3rd day in which the cold dissection group showed significantly lower pain score. Mean percentage of diet was significantly higher in the diathermy group on the 1st day. No significant difference between the 2 groups in terms of postoperative activity and complications.

Conclusion: BDT is a safe technique of tonsillectomy. There is significant less operative time and blood loss with similar morbidity compared to CDT, so it can be used safely in children.
Potential effect of robust and simple IMRT approach for left-sided breast cancer on cardiac mortality.


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Abstract

**Purpose:** Three-dimensional (3D) treatment planning has reduced the cardiac dose in postoperative radiotherapy for breast cancer; however, the overall cardiac toxicity is still an issue because of more aggressive adjuvant treatment. Toxicity models have suggested that a reduction of the heart volume treated to high doses might be particularly advantageous. We compared aperture-based multifield intensity-modulated radiotherapy (IMRT) plans to 3D-planned tangent fields using dose-volume histograms, cardiac toxicity risk, and the robustness to positioning errors.

**Methods and Materials:** For 14 computed tomography data sets of patients with left-sided breast cancer (unfavorable thoracic geometry), a 3D treatment plan and an IMRT plan were created. The dose-volume histograms were evaluated for the target and risk organs. Excess risk of cardiac mortality was calculated for both approaches using a relative seriality model. Positioning errors were simulated by moving the isocenter.

**Results:** IMRT reduced the maximal dose to the left ventricle by a mean of 30.9% (49.14 vs. 33.97 Gy). The average heart volume exposed to >30 Gy was reduced from 45 cm$^3$ to 5.84 cm$^3$. The mean dose to the left ventricle was reduced by an average of 10.7% (10.86 vs. 9.7 Gy), and the mean heart dose increased by an average of 24% (from 6.85 to 8.52 Gy). The model-based reduction of the probability for excess therapy-associated cardiac death risk was from 6.03% for the 3D plans to 0.25% for the IMRT plans.

**Conclusion:** Aperture-based IMRT for left-sided breast cancer significantly reduces the maximal dose to the left ventricle, which might translate into reduced cardiac mortality. Biological modeling might aid in deciding to treat with IMRT but has to be validated prospectively.
Is research ethics committee approval necessary for publication of prospective surgical research studies?

Afifi RY, Agha R, David Rosin R.

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Accuracy of routine magnetic resonance imaging in meniscal and ligamentous injuries of the knee: comparison with arthroscopy.

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Abstract

The aim of this study was to detect the accuracy of routine magnetic resonance imaging (MRI) done in different centers and its agreement with arthroscopy in meniscal and ligamentous injuries of the knee. We prospectively examined 70 patients ranging in age between 22 and 59 years. History taking, plain X-ray, clinical examination, routine MRI and arthroscopy were done for all patients. Sensitivity, specificity, accuracy, positive and negative predictive values, P value and kappa agreement measures were calculated. We found a sensitivity of 47 and 100%, specificity of 95 and 75% and accuracy of 73 and 78.5%, respectively, for the medial and lateral meniscus. A sensitivity of 77.8%, specificity of 100% and accuracy of 94% was noted for the anterior cruciate ligament (ACL). We found good kappa agreements (0.43 and 0.45) for both menisci and excellent agreement (0.84) for the ACL. MRI shows high accuracy and should be used as the primary diagnostic tool for selection of candidates for arthroscopy. Level of evidence: 4.
Abstract

Background: Fibroblast growth factor-23 (FGF23) is a circulating factor that regulates renal reabsorption of inorganic phosphate. Serum FGF23 level is increased in chronic kidney disease (CKD) patients as a compensatory mechanism to hyperphosphataemia. FGF23 directly signals in the parathyroid glands and can be used to predict future secondary hyperparathyroidism in dialysis patients. We examined the relationship between FGF23 and serum calcium, phosphate, 1,25(OH)(2)D(3), and PTH levels in haemodialysis patients.

Methods: FGF23 and the above mentioned characteristics were measured in 50 chronic haemodialysis patients. We analysed the correlation between FGF23 and the other characteristics by using the Pearson correlation coefficient and multiple regression analysis.

Results: FGF23 was significantly increased in haemodialysis patients compared with healthy controls (1525 ± 373 vs. 37 ± 9 pg/ml, P < 0.0001). There was a significant negative correlation between log FGF23 and 1,25(OH)(2)D(3) (R = -0.375, P = 0.009) and a significant positive correlation between log FGF23 and log PTH values (R = 0.287, P = 0.041). In multiple regression analysis log PTH and 1,25(OH)(2)D(3) values were independent predictors of log FGF23 (P=0.037 and 0.009, respectively).

Conclusions: Our results revealed a marked increase in FGF23 levels in haemodialysis patients. PTH and vitamin D3 were independent predictors of FGF23 in the study group. Serum phosphate did not correlate with or predict FGF23 level despite the high prevalence of hyperphosphataemia in the study group.
Hyperpigmented, hypertrichotic, and sclerodermoid plaques: an unusual variant of Muckle-Wells syndrome

El-Darouti MA.

Department of Dermatology, Faculty of Medicine, Cairo University, Cairo, Egypt.
Ultrasound biomicroscopy comparison of ab interno and ab externo scleral fixation of posterior chamber intraocular lenses.

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Abstract

Purpose: To compare ab interno and ab externo scleral fixation of posterior chamber intraocular lenses (PC IOLs) using ultrasound biomicroscopy (UBM) to determine the centration of IOL optic and the position of the haptics in relation to the sulcus.

Setting: Kasr Eleini Hospital, Cairo University, Cairo, Egypt.

Methods: Consecutive patients with aphakia had ab externo or ab interno scleral fixation of a PC IOL. Ultrasound biomicroscopy was used preoperatively to determine whether the eyes were unsuitable for capsule fixation and 3 and 6 months postoperatively, determine the position of the haptics in relation to the ciliary sulcus, and evaluate centration of the optic.

Results: Fifteen eyes of 14 patients were studied. Eight patients had ab externo fixation, and 7 had ab interno fixation. The haptics were located in the sulcus in 31% of cases with ab externo fixation and 29% with ab interno fixation. The difference was not statistically significant.

Conclusion: Ab interno and ab externo scleral fixation, which are both blind procedures, resulted in comparable low rates of sulcus fixation.
Role of the 585-nm pulsed dye laser in the treatment of acne in comparison with other topical therapeutic modalities.

Leheta TM.

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Abstract

Background: Acne vulgaris is a disease of the pilosebaceous unit characterized by the development of inflammatory and/or non-inflammatory lesions that may progress to scars. The increase of bacterial resistance and adverse effects, the teratogenicity of retinoids and lack of response to usual therapies has led to the investigation of new therapeutic alternatives.

Objective: To evaluate the role of the pulsed dye laser in the treatment of acne in comparison with other topical therapeutic modalities.

Methods: We studied 45 patients with mild to moderate acne. Patients were randomly divided into three groups: group A received treatment with pulsed dye laser therapy every 2 weeks, group B received topical preparations and group C was subjected to chemical peeling using trichloroacetic acid 25%.

Results: At 12 weeks of treatment, there was a significant improvement of the lesions within each group with the best results seen in group A; however, no significant difference was detected between the three treatment protocols after the treatment period. Remission in the follow-up period was significantly higher in the first group.

Conclusions: Pulse dye laser therapy mainly improves the inflammatory lesions of acne with few adverse effects.
Possible role of nerve growth factor and interleukin-18 in pathogenesis of eczematous lesions of atopic dermatitis.

Shaker OG, El-Komy M, Tawfic SO, Zeidan N, Tomairek RH.

Departments of Medical Biochemistry and Dermatology, Faculty of Medicine, Cairo University, Cairo, Egypt.
Topical calcineurin inhibitors in atopic dermatitis: a systematic review and meta-analysis.

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

Abstract

Objectives: To build a critical appraisal of the available literature to evaluate the effectiveness of topical calcineurin inhibitors in treatment of atopic dermatitis (AD), in comparison to topical corticosteroids (TCs) and/or placebo.

Design: systematic review and meta-analysis.

Data Sources: electronic search of MEDLINE Pubmed along the last 10 years (1997-2006).

Study Selection: randomized control trials of TCIs reporting efficacy outcomes, in comparison to TCs or vehicle (placebo) or both. Data synthesis: of 210 articles, 19 studies were included, 10 for tacrolimus and 9 for pimecrolimus, involving patients of whom 2771 applied tacrolimus, 1783 applied pimecrolimus, and were controls. Both drugs were significantly more effective than a vehicle. However, two long-term trials comparing demonstrated the value of pimecrolimus in reduction of flares and steroid-sparing effect after 6 months. Compared to TCs both 0.1% and 0.03% tacrolimus ointments were as effective as moderate potency TCs, and more effective than a combined steroid regimen. Tacrolimus was more effective than mild TCs.

Conclusions: TCIs in AD are more effective than placebo. Although less effective than TCs, pimecrolimus has its value in long-term maintenance and as a steroid-sparing agent in AD, whenever used early enough, at first appearance of erythema and/or itching. In treatment of moderate to severe AD, topical tacrolimus is as effective as moderately potent TCs, and more effective than mild preparations. Chronic AD lesions of the face and flexures are the most justified indication for topical calcineurin inhibitors.
The influence of depression on the outcome of treatment in occupational dermatoses workers.

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Department of Psychiatry, Kasr El-Eini Faculty of Medicine, Cairo University, Cairo, Egypt.

Abstract

Background: Contact dermatitis accounts for approximately 50% of occupational illnesses and is responsible for an estimated 25% of all lost work days.

Objective: To evaluate the usefulness of using psycho-behavioural assessment in identifying the influence of depression on the treatment of occupational dermatoses.

Methods: The study was conducted on 250 furnace workers exposed to arsenic in Helwan district, Cairo, Egypt. A complete history including occupational history and medical assessment were done followed by undergoing a neurobehavioural battery. The battery included the Beck Depression Inventory, personality tests, and cognitive tests. Patients received a class 1 topical corticosteroid, potassium permanganate soaks, and oral antihistamine for 6 months and after a change of work they were re-examined.

Results: After 6 months, patients were divided into two groups according to response to therapy: group A (responders) and group B (non-responders). The psycho-behavioural battery was compared between both groups and showed a significant difference, suggesting the influence of depression on the outcome of treatment among group B patients.

Conclusion: Psycho-behavioural analysis of occupational dermatitis patients before starting treatment is recommended. All occupational dermatitis patients showing a bad psycho-behavioural test should be psychologically treated with psychotherapy or antidepressants.
Evaluation of the effect of oxidative stress and vitamin E supplementation on renal function in rats with streptozotocin-induced Type 1 diabetes.

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Abstract

We investigated the possible role of reactive oxygen species (ROS) on renal function in experimental diabetes.

Materials and Methods: Seven groups of male rats were studied. Group I consisted of control animals. Diabetes was induced (by streptozotocin) in the animals in the other groups and they received either insulin or vitamin E (300 or 600 mg/kg), both insulin and vitamin E, or no treatment for 4 weeks. At the end of the study, blood pressure was measured and parameters of kidney function and oxidative stress were evaluated in serum and kidney tissue samples.

Results: Diabetic animals had higher blood pressures† increased serum glucose, urea, creatinine, cyclic guanosine monophosphate (cGMP) † increased kidney tissue levels of malondialdehyde and inducible nitric oxide synthetase (iNOS); and reduced serum glutathione peroxidase when compared with control animals. Blood glucose levels in diabetic animals were controlled by insulin and not by any dose of vitamin E alone. However, all other measured parameters improved towards control levels with either insulin or vitamin E in either dose. An additive beneficial effect was observed on the levels of iNOS and cGMP when both forms of treatment were used in diabetic animals.

Conclusions: We conclude that ROS may play an important role in diabetes-induced nephropathy in this rat model. Vitamin E supplementation in addition to insulin can have additive protective effects against deterioration of renal function in this model.
Risk factors predisposing to toxoplasmosis in chronic renal failure patients and renal transplant recipients.

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

Abstract

This work evaluated risk factors predisposing to toxoplasmosis in chronic renal failure patients and renal transplant recipients. The present study included 91 cases classified according to their renal status into four groups: control group, renal failure patients not on haemodialysis, renal failure patients on regular haemodialysis and renal transplant recipients group. The age groups (< 20) and > 10 had the highest positivity for anti-Toxoplasma IgG & IgM antibodies in comparison to the other age groups. The results showed no sex difference in positivity rate for anti-Toxoplasma IgG & IgM in groups. There was no significant difference between groups regarding risk factors for contracting toxoplasmosis, clinical presentation suggestive of toxoplasmosis and diabetes mellitus. There was significant difference between all groups as regarding intake of immunosuppressive drugs and blood transfusion.
Serological detection of Toxoplasma gondii in chronic renal failure patients and renal transplant recipients.

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Toxoplasma gondii antibodies were detected in 78 patients with renal disease by ELISA. Patients were classified according to the renal status; chronic renal failure patients not on haemodialysis (G1 = 19), chronic renal failure patients on regular haemodialysis (G2 = 30), renal transplant recipient (G3 = 29) and 13 normal controls. Anti-Toxoplasma IgG & IgM antibodies were 36.8% & 10.5% in renal failure patients not on haemodialysis, 56.7% & 16.7% in patients on regular haemodialysis and 69% & 24.1% in renal transplant recipients versus 23.1% & 0% in controls with statistical significant difference for Toxoplasma IgG antibodies only. Anti-Toxoplasma IgG antibodies levels of G3 were lower than that of G1. It was observed that the more the exposure to dialysis, the more the risk of toxoplasmosis. It was found that 85.71% of renal transplant recipient seropositive cases for anti-Toxoplasma IgM antibodies were detected in one year post-transplantation and 14.28% of cases after the first year of transplantation.
ELISA-based coproantigen in human strongyloidiasis: a diagnostic method correlating with worm burden.

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In order to overcome the false negative diagnosis of strongyloidiasis in the absence of rhabditiform larvae in stools, an ELISA-based Strongyloides stercoralis-specific coproantigen detection assay in stools of infected patients was evaluated. In a sandwich ELISA, a rabbit hyperimmune serum against S. stercoralis ES (excretory/secretory) adult antigen succeeded in capturing S. stercoralis coproantigen from infected patients and did not react with coproantigens prepared from the stool samples of patients infected with Schistosoma mansoni, Fasciola gigantica and Capillaria philippenensis. Coproantigen was able to detect anti-S. stercoralis IgG antibodies in sera of infected patients at the same OD level as produced with S. stercoralis E/S worm antigen using an indirect ELISA did not cross-react with sera from patients with S. mansoni, F. gigantica and C. philippenensis. S. stercoralis coproantigen detection proved a sensitive, simple, reliable and inexpensive ELISA-based, and an alternative to coproscopical methods in copropositive (with larvae in stool) and copronegative (without larvae in stool) stool samples. Fecal ELISA showed a positive relationship between copro-Ag and worm burdens, and considered a starting point for the development of species-specific copro-immunological diagnostic assays using monoclonal antibodies and dipstick technology.
Five-year experience in the treatment of alopecia areata with DPC.

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Abstract

Background: The effectiveness of Diphencyprone (DPC) in alopecia areata (AA) was demonstrated in several studies with highly variable response rates ranging from 5% to 85%.

Objective: The response rate and variable factors affecting the prognosis were studied focusing on long-term follow-up with or without maintenance therapy.

Methods: A total of 135 cases of AA were treated with DPC. Patients were divided into five groups according to the area of scalp affected: Grade 1 AA: 25-49% scalp affection; Grade 2 AA: 50-74% scalp affection; Grade 3 AA: 75-99% scalp affection; alopecia totalis and alopecia universalis. An initial response was defined as appearance of new terminal hair within treated sites. Excellent response was defined as terminal hair covering >75% of the scalp. Relapse meant >25% hair loss. Maintenance therapy meant ongoing therapy once every 1-4 weeks after excellent response. Follow-up was performed to detect any relapse of AA.

Results: Ninety-seven patients continued therapy for >or=3 months. After an initial 3 month lag, cumulative excellent response was seen in 15 patients (15.4%), 47 patients (48.5%), 51 patients (52.6%) and 55 patients (55.7%) after 6, 12, 18 and 24 months respectively in a mean median time of 12 months. The only patient variable affecting the prognosis was baseline extent of AA. Excellent response was seen in 100%, 77%, 54%, 50% and 41% in Grade 1, Grade 2, Grade 3, AA totalis and AA universalis patients respectively. Side-effects were few and tolerable. Hair fall >25% occurred in 17.9% of patients on maintenance and 57.1% of patients without maintenance therapy (P-value=0.025).

Conclusion: Diphencyprone is an effective and safe treatment of extensive AA. A long period of therapy is needed and will increase the percentage of responders especially in alopecia totalis and universalis. Maintenance therapy is recommended to reduce the risk of relapse.
Serum and tissue expression of transforming growth factor beta 1 in psoriasis.

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Abstract

Background: In psoriasis, keratinocyte hyperplasia may be explained by imbalance of growth factors responsible for epidermal proliferation and altered metabolism of their receptors. Transforming growth factor-beta1 (TGF-beta1) implications in the pathogenesis of psoriasis can be attributed to several mechanisms besides keratinocyte cell cycle inhibition.

Objectives: To evaluate the relation between serum and tissue levels of TGF-beta1 in psoriasis and their correlation with disease parameters.

Patients and Methods: Serum and punch biopsy of involved and non-involved skin of 22 patients with psoriasis vulgaris and 10 controls were collected for quantification of TGF-beta1 by enzyme-linked immunosorbent assay kit.

Results: Serum level of TGF-beta1 in psoriatic patients was higher than controls in a statistically non-significant manner. Correlations between serum level of TGF-beta1 and extent of the disease (P = 0.007) and Psoriasis Area and Severity Index (PASI) score (P = 0.005) were observed. Mean tissue levels of TGF-beta1 were highest in psoriatic lesions in contrast to normal skin of psoriatic patients and healthy controls, but not statistically significant. Correlation between tissue levels of TGF-beta1 in non-involved skin and extent of the disease (P = 0.007) and PASI score (P = 0.013) was detected. Correlation was detected between levels of TGF-beta1 in psoriatic plaques and serum of patients (P = 0.035), but not between levels of TGF-beta1 in non-involved skin and serum.

Conclusions: Tissue expression of TGF-beta1 in psoriasis may be affected by the stage of development of the lesion. The direct relation between TGF-beta1 in psoriatic plaques and serum imply that the mechanisms for TGF-beta1 production and release in both these compartments may be related.
Botulinum toxin: could it be an effective treatment for chronic tension-type headache?

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Abstract

Several clinical trials suggest that botulinum toxin type-A (BTX-A) may be an effective treatment option for patients with chronic tension-type headache (CTTH); however, controversy remains as to how the botulinum toxin optimally should be used for treating headache and which patient's profile fits this treatment. The Objective of this study was to evaluate the efficacy and tolerability of BTX-A for the prophylactic treatment of CCTH in Egyptian patients. This was a randomized, single-blind, placebo-controlled study of BTX-A for the treatment of patients aged 25-50 years old with CCTH. Following a 30-day screening, headache parameters and severity assessed by the standard visual analogue scale (VAS), and the 25-item Henry Ford Hospital Headache Disability Inventory (HDI) were recorded as a baseline. Then, injection was done with either BTX-A or with saline by a combination of two methods for detecting injection sites (the fixed-site approach and follow-the-pain approach). Our study showed significant improvement after 1 month of BTX-A injection regarding headache days/month, severity measured by VAS and HDI in headache severity. There was significant reduction of prophylactic medications, and there were minor complications, but these reversed spontaneously without further treatment. BTX-A was an effective and well-tolerated prophylactic treatment in Egyptian patients with CCTH.
Failure of a non-authorized copy product to maintain response achieved with imatinib in a patient with chronic phase chronic myeloid leukemia: a case report

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Introduction: Due to high rates of response and durable remissions, imatinib (Glivec(R)), or Gleevec(R) in the USA; Novartis Pharma AG) is the standard of care in patients with chronic myeloid leukemia. Recently, a non-authorized product which claims comparability to imatinib has become available.

Case Presentation: This report describes the loss of response in a 36-year-old male patient with chronic-phase chronic myeloid leukemia who had previously been in full hematologic and cytogenetic remission and partial molecular remission for three years, under treatment with brand-name imatinib of 400 mg per day. Before the initiation of treatment with a copy product, imatib (CIPLA-India), the patient had negative BCR-ABL status. Within three months of initiation of treatment with the copy product, the patient's BCR-ABL status became positive with substantial decreases noted in white blood cell counts, red blood cell counts and platelet counts. Conversion of the BCR-ABL status to negative and improvements in hematologic parameters were achieved when the brand medication imatinib, was resumed at a dose of 600 mg per day.

Conclusion: In our patient the substitution of a copy product for imatinib resulted in the rapid loss of a previously stable response, with the risk of progression to life-threatening accelerated phase or blast crisis phase of the disease. Without supportive clinical evidence of efficacy and safety of imatib (or any other copy product (caution should be used when substituting imatinib in the treatment of any patient with chronic myeloid leukemia.
Prospective cohort study of mother-to-infant infection and clearance of hepatitis C in rural Egyptian villages.


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Abstract

Although persistent transmission of hepatitis C virus (HCV) from infected mothers to their infants is reported in 4-8%, transient HCV perinatal infection also occurs. This prospective cohort study determined perinatal HCV infection- and early and late clearance-rates in 1,863 mother-infant pairs in rural Egyptian villages. This study found 15.7% and 10.9% of pregnant women had HCV antibodies (anti-HCV) and HCV-RNA, respectively. Among 329 infants born of these mothers, 33 (10.0%) tested positive for both anti-HCV and HCV-RNA 2 months following birth-29 (12.5%) having HCV-RNA positive mothers and 4 (with transient infections) having mothers with only anti-HCV. Fifteen remained HCV-RNA positive at one and/or 2 years (persistent infections), while 18 cleared both virus and antibody by 1 year (transient infections). Among the 15 persistent cases, 7 cleared their infections by 2 or 3 years. At 2- to 6- and at 10- to 12-month maternally acquired anti-HCV was observed in 80% and 5% of infants, respectively. Four perinatally infected and one transiently infected infant were confirmed to be infected by their mothers by the sequence similarity of their viruses. Viremia was 155-fold greater in mothers of infants with persistent than mothers of infants with transient infections. Maternal-infant transmission of HCV is more frequent than generally reported. However, both early and late clearance of infection frequently occurs and only 15 (4.6%) and 8 (2.4%) infants born of HCV-RNA positive mothers had detectable HCV-RNA at one and 2-3 years of age. Investigating how infants clear infection may provide important information about protective immunity to HCV.
Response to pegylated interferon alfa-2a and ribavirin in chronic hepatitis C genotype 4.


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Abstract

The safety and efficacy of pegylated interferon (PEG-IFN) alfa-2a and ribavirin were studied among patients treated for genotype 4 chronic hepatitis C. Ninety-five patients with chronic hepatitis C genotype 4 were treated with PEG-IFN alfa-2a (180 microg/week) plus ribavirin (> or =11 mg/kg/day) for 48 weeks. The primary end point was sustained virological response, defined as non-detectable levels of HCV RNA at the end of follow up (week 72). The proportion with sustained virological response was 58/95 = 61.1% (95% CI = 50.5-70.9%). Side effects were generally mild, well managed by dose reductions (in 62% of patients); in only two patients were side effects sufficiently severe to require treatment interruption. Ninety percent of patients adhered to treatment up to week 12, and their sustained virological response rate was higher compared to non-adherent (65% vs. 22%, respectively, P = 0.012). None of the patients who failed to achieve 1 log reduction of viral load by week 8 (n = 15), or 2 log reduction by week 12 (n = 17), had a sustained virological response. In conclusion, sustained virological response in genotype 4 Egyptian patients treated with PEG-IFN alfa-2a and ribavirin was estimated around 60%, intermediate between sustained virological response observed in genotype 1 and genotype 2-3 patients in Western countries. The early virological response (week 4 or week 8) should be investigated as a criterion to decide whether the patient may benefit from a shorter duration of therapy.

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Aim: To clarify the reality of the G-spot anatomically, functionally and histologically, and to determine the possible effect of female circumcision and anterior vaginal wall surgery on the integrity and function of the G-spot.

Methods: A controlled descriptive and comparative cohort prospective study was conducted at Kasr El Aini School of Medicine, Cairo University, Cairo, Egypt, of 125 uncircumcised and 125 circumcised women with small to moderate anterior vaginal wall descent. Preoperative sexual examination was performed to map the site of the G-spot and other anatomical landmarks on the anterior vaginal wall and to verify the associated circumcision state. Pre- and postoperative sexual assessment and histological examination of different mapped sites in the anterior vagina were also conducted.

Results: Histological findings, results of the anatomical and sexual mapping of the anterior vaginal wall and sexual scores were recorded. The G-spot was proved functionally in 144 (82.3%) of women and anatomically in 95 (65.9%). The latter appeared as two small flaccid balloon-like masses on either side of the lower third of the urethra and were named 'the sexual bodies of the G-spot'. These bodies were significantly detected in all histo-positive cases in the circumcised women and in the uncircumcised women who had small or average clitorises. The G-spot was also proved histologically in 94% of all cases and was formed of epithelial, glandular and erectile tissue. Sex scores were significantly higher in the histo-positive cases with sexual bodies but significantly dropped after anterior vaginal wall surgery. In contrast, female circumcision rarely alters the scores.

Conclusion: The G-spot is functional reality in 82.3% of women, an anatomical reality in 54.3% and a histological reality in 47.4%. Anterior vaginal wall surgery usually affects the G-spot and female sexuality, but female circumcision rarely affects them.
Effect of intracameral bevacizumab injection on corneal endothelial cells: an in vivo evaluation.

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Background: We studied the effect of an intracameral bevacizumab injection on the corneal endothelium and iris neovessels (INV).

Methods: Ten eyes were studied in patients with an average age of 52.1 ±13.17 years. Patients underwent intracameral bevacizumab injections at a concentration of 1.25 mg/0.05 mL. Intraocular pressure, best-corrected visual acuity, gonioscopy, neovascular membrane extent, anterior segment photography, iris fluorescein angiography, pachymetry, and specular microscopy were recorded preoperatively and postoperatively.

Results: The minimum follow-up period was 4 months. INVs started to regress within the first 2 days after the injection and regressed completely by the end of the fourth week. Reduction in INV leakage started 1 week after injection, and resolved in 8 eyes (80%) by the end of the fourth week. Intraocular pressure dropped significantly from 17.8 ± 4.8 mmHg to 16.6 ± 2.8 mmHg over 4 weeks. The mean endothelial cell loss was 3.95% ± 6.78%.

Conclusions: An intracameral bevacizumab injection proved to be safe for corneal endothelial cells.
Treatment of Tossy III acromioclavicular joint injuries using hook plates and ligament suture.

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Abstract

Objectives: The management of acromioclavicular (AC) injuries has long been debated. We analyzed our results in treating such cases using hook plates and ligament suture.

Design: Retrospective nonrandomized study.

Setting: Level I Trauma Center (University Hospital).

Patients: Twenty-five patients (mean age 41 years) with complete Tossy III AC joint disruptions. Using the Rockwood classification, 15 dislocations were classified as type V injuries, 9 as type III injuries, and 1 as a type IV injury.

Intervention: All patients were operatively treated using AC hook plates with ligament suture and a median delay of 7 days.

Main Outcome Measures: Clinical and radiographic evaluation using Constant-Murley functional score and Taft et al criteria.

Results: A retrospective clinical and radiographic evaluation of 23 patients was performed after an average follow-up period of 30 months. The mean Constant score was 97 (range, 90-100) points, and the mean Taft score was 10.6 points. All but 1 patient were satisfied with their treatment outcome. Eight cases showed some loss of reduction after plate removal. A poor correlation existed, however, between clinical and radiographic results.

Conclusions: The hook plate is a reliable fixation tool for complete AC joint dislocations, ensuring immediate stability and allowing early mobilization with good functional and cosmetic results. Routine plate removal should however be reevaluated.
Predictive impact of electrolyte abnormalities on the admission outcome and survival of palliative care cancer referrals.

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Abstract

Background and Aim: Electrolyte abnormalities are common among patients with advanced cancer. Our aim was to estimate the prognostic significance of such abnormalities in a palliative care setting.

Methods: A retrospective review of the medical records of inpatients with cancer referred to palliative care over a 25-month period. The five electrolytes studied were potassium, sodium, calcium, magnesium, and phosphate. The prognostic impact of related abnormalities on admission outcome and overall survival was estimated in univariate analysis.

Results: From 866 new cancer referrals, 259 (30%) were eligible for analysis. Abnormalities in sodium, calcium, and magnesium levels were associated with a significant difference in inpatient death rates (p = 0.004, 0.001 and 0.04, respectively) and overall survival (p = 0.0008 and 0.0008, and < 0.0001, respectively). The status of potassium and phosphate had no significant impact on admission outcome or overall survival. The three electrolyte abnormalities associated with the highest inpatient death rate were hypercalcemia, hypernatremia, and hypermagnesemia (69%, 68%, and 62%, respectively). Patients with these abnormalities had the shortest median survival as well (12, 8, and 12 days, respectively).

Conclusion: Some electrolyte abnormalities may be useful as prognostic indicators in the palliative care setting. However, their prognostic value needs to be investigated in prospective studies and adjusted against proven prognostic indicators.
Results of treatment of idiopathic clubfoot in older infants using the Ponseti method: a preliminary report.

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Abstract

The Ponseti method has become a well-established technique for the treatment of clubfoot presenting in the neonatal period. A few reports have discussed the result of this method in older age group. The purpose of this study is to present the results and clinical experience of using the Ponseti method in the treatment of idiopathic congenital talipes equinovarus in infants presented between 4 and 13 months of age with a history of failed manipulations. Thirty-two feet in 20 infants (12 males; eight females) with idiopathic congenital clubfeet were treated using the Ponseti method with minor modifications. The average age at presentation was 7 months (range from 4 to 13 months). We used the Pirani scoring system to assess the feet. After an average follow-up of 19 months, the ultimate overall results were satisfactory in 31 feet. The Pirani score improved from an average of 4.3 (range: 3-6) at presentation to a final follow-up average of 0.5 (range: 0-1). One foot had unsatisfactory result with a pretreatment score of 5.5 and a final score of 3. The results were also presented in terms of the number of casts applied, the need for tenotomy of tendo Achillis, recurrence of the deformity and the ultimate requirement for surgical release. The use of the Ponseti method in older-aged infants with idiopathic congenital clubfoot seems to be an effective method of treatment, obviating the need for extensive surgery.

Safety of ungated shockwave lithotripsy in pediatric patients.

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Abstract

Objective: Ungated extracorporeal shockwave lithotripsy (ESWL) in adults is associated with cardiac arrhythmias. We report on the safety and efficacy of this method for treatment of renal calculi in children.

Patients and Methods: Children under 14 years with radio-opaque renal stones were treated by ungated ESWL. Pre-treatment plain radiographs and intravenous urography and post-treatment ultrasonography and plain films were used to follow up clearance of fragments. All children were monitored for arrhythmias.

Results: Thirty-seven children (28 males, nine females) with a median age of 5 years (range 2-14 years) underwent 69 ungated ESWL sessions for renal calculi. Nineteen children had stones located in the left kidney, 17 had stones located in the right kidney and one child had bilateral renal stones. The stone size ranged from 6 to 25 mm (mean 9.9 mm). Shockwave number ranged from 800 to 3650 (mean of 2500 shockwaves per session). All children underwent lithotripsy with a gradual incremental energy increase from 14 to 20 kV. No patient had cardiac arrhythmias or other intra-procedural complications. No patient required conversion to gated ESWL. The overall stone-free rate was 86%.

Conclusion: The results suggest that ungated ESWL is safe in children under 14 years. The efficacy was comparable to that of gated ESWL from previously published series.

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Abstract

Objective: To prospectively investigate the effects on urinary tract infection (UTI) of indwelling urinary catheter placement during cesarean delivery.

Study Design: Randomized controlled trial.

Result: There were no significant differences between the two groups regarding patient demographics. There was, however, a statistically significant increase in women using general anesthesia in the catheterized group (CG). Even so, the incidence of UTI was significantly greater in the CG (P<0.001). In addition, mean time to patient ambulation, first postoperative voiding, oral rehydration, intestinal movement and duration of hospital stay were significantly less in the uncatheterized group (UG; P<0.001), with most patients (95.3%) self-voiding without any intervention. Moreover, no intraoperative complications were recorded in the UG.

Conclusion: Non-placement of indwelling urinary catheter during cesarean was more convenient to women with no increase in intraoperative complications, or urinary retention. Indwelling catheter placement in hemodynamically stable patients proved not to be beneficial in this study.
Congenital palatal fistula in a patient with submucous cleft palate

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Can magnetic resonance imaging differentiate undifferentiated arthritis based on knee imaging?


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Objective: To compare findings as observed on enhanced magnetic resonance imaging (MRI) of the knee joints, in oligoarticular-undifferentiated arthritis (UA) in those with established rheumatoid arthritis (RA) and spondyloarthropathy (SpA).

Methods: A total of 55 patients with knee arthritis were consecutively recruited for the study, including 25 with undifferentiated oligoarthritis of the knee joint(s), 15 fulfilling the American College of Rheumatology criteria for RA and 15 with SpA. Laboratory investigations included erythrocyte sedimentation rate, C-reactive protein, complete blood count, aspartate aminotransferase, alanine aminotransferase, serum creatinine, and urine analysis. In all patients in the UA and in the RA group, rheumatoid factor and anti-CCP2 antibody (ELISA) were tested. All patients underwent enhanced MRI of the more symptomatic knee. All groups were compared in terms of demographics, laboratory investigations, and MRI findings.

Results: Synovial thickness differed significantly in the RA group compared to UA and SpA groups (p < 0.001). The RA group showed a higher rate of bony and cartilaginous erosions and bone marrow edema compared to UA and SpA groups (p < 0.001). Enthesitis was found in all patients in the SpA group (100% and differed from RA and UA groups (p < 0.001).

Conclusion: Patients with RA showed more destructive changes in terms of synovial thickening, bone marrow edema, cartilaginous and bone erosions compared to UA and SpA groups. Enthesitis is a common feature on MRI in SpA, while absent in the RA and UA groups. This latter finding may have important clinical implications for classification purposes, and can help to determine the evolving pattern of patients with UA of the knee joint.
An electrophysiologic study of female ejaculation

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Abstract
Opinions vary over whether female ejaculation exists or not. We investigated the hypothesis that female orgasm is not associated with ejaculation. Thirty-eight healthy women were studied. The study comprised of glans clitoris electrovibration with simultaneous recording of vaginal and uterine pressures as well as electromyography of corpus cavernous and ischio- and bulbo-cavernosus muscles. Glans clitoris electrovibration was continued until and throughout orgasm. Upon glans clitoris electrovibration, vaginal and uterine pressures as well as corpus cavernous electromyography diminished until a full erection occurred when the silent cavernosus muscles were activated. At orgasm, the electromyography of ischio-and bulbo-cavernosus muscles increased intermittently. The female orgasm was not associated with the appearance of fluid coming out of the vagina or urethra.
Putative role of carbon monoxide signaling pathway in penile erectile function

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Abstract

Introduction: Erectile response depends on nitric oxide (NO) generated by NO synthase (NOS) enzyme of the nerves and vascular endothelium in the cavernous tissue. NO activates soluble guanylate cyclase (sGC), leading to the production of cyclic guanosine monophosphate (cGMP). cGMP activates cGMP-dependent protein kinase that activates Ca(2+)/ATPase pump that activates Ca(2+)/K efflux pump extruding Ca(2+) across the plasma membrane with consequent smooth muscle cell relaxation. A role similar to that of NOS/NO signaling has been postulated for carbon monoxide (CO) produced in mammals from heme catabolism by heme oxygenase (HO) enzyme.

Aim: To assess CO signaling pathway for erectile function by reviewing published studies.

Methods: A systematic review of published studies on this affair based on Pubmed and Medical Subject Heading databases, with search for all concerned articles.

Main Outcome Measures: Documentation of positive as well as negative criteria of CO/HO signaling focused on penile tissue.

Results: The concept that HO-derived CO could play a role in mediating erectile function acting in synergism with, or as a potentiator for, NOS/NO signaling pathway is gaining momentum. CO/HO signaling pathway has been shown to partially mediate the actions of oral phosphodiesterase type 5 inhibitors. In addition, it was shown that the use of CO releasing molecules potentiated cavernous cGMP levels. However, increased CO production or release was reported to be associated, in some studies, with vasoconstriction.

Conclusion: This review sheds a light on the significance of cavernous tissue CO signaling pathway that may pave the way for creation of therapeutic modalities based on this pathway.
The potential role of the heme oxygenase/carbon monoxide system in male sexual dysfunctions.

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Abstract

Introduction: Recently there has been a growing interest regarding the role of carbon monoxide (CO) and its precursor, heme oxygenase (HO) in mediation of penile erection and their potential roles as molecular targets in treatment of erectile dysfunction. AIM: To review the available literature on the role of the HO/CO system in male sexual dysfunctions.

Methods: This review will begin by a discussion of the physiology of the HO/CO system followed by a detailed assessment of the literature examining the role of HO/CO system in male sexual dysfunctions.

Main Outcome Measures: The effect of HO/CO system on penile erection, ejaculation, and priapism.

Results: Most of the studies attempting to investigate the role of HO/CO in male sexual functions focused on penile erection. The majority of these studies did report a significant positive effect of the HO/CO system on penile erection. However, none of these studies examined the role of HO/CO system in aging animals; aging being considered the most important risk factor for ED. Furthermore, only one study tested the role of HO/CO system in erectile function. The important observation that HO-2 deficient mice have low bulbospongiosus muscle activity deserves extensive research on the value of HO inhibition in the treatment of premature ejaculation. Data from the only study on low-flow priapism and HO suggests that HO-1 is involved in the paradigm of low-flow priapism.

Conclusions: The HO/CO system may have an important role in many male sexual functions. Extensive research is needed to precisely delineate the extent to which the HO/CO system plays in the physiology and pathophysiology of male sexual dysfunctions.
Revealing the buried penis in adults

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Abstract

Introduction: Several surgical solutions have been proposed for resolving penile concealment with successful outcomes. Those include liposuction, adhesiolysis, and suprapubic lipectomy through the abdominal crease. Nevertheless, some limitations exist and compromise the results of surgical correction. AIM: This work presents our technique for revealing the hidden penis, addressing the limitations of existing methods for surgical correction.

Methods: Sixty-four adult males with buried penis were operated upon. The penis was revealed by the combination of adhesiolysis, suprapubic and lateral lipectomy, anchoring the penoscrotal and penopubic junctions, and skin coverage by a local flap.

Main Outcome Measures: Penile length in the flaccid and erect states.

Results: Average postoperative length in the flaccid state was approximately 7 cm ± 1.3 (a 293% increase) and in the erect state was 18.4 cm ± 2.9 (185.7% increase), compared with preoperative length of 1.8 cm ± 0.4 in the flaccid state and 6.4 cm ± 1.6 in the erect state. Minor complications occurred. There was no deterioration in sexual function.

Conclusion: Revealing the concealed penis is a complicated procedure. The outcome may be improved by implementing a radical approach to tissue excision, providing adequate skin coverage, and anchoring the penile shaft, skin, and subcutaneous tissues in the revealed state to prevent relapse.
The impact of on-pump coronary artery bypass surgery vs. off-pump coronary artery bypass surgery on sexual function.

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Abstract

Introduction: Erectile dysfunction and ischemic heart disease are common health problems that affect elderly individuals. Despite advances in treatment strategies, cardiopulmonary bypass (CPB) has been used for coronary artery bypass grafting (CABG) for over three decades for surgical myocardial revascularization. Aim: To discuss the difference between the on pump and the newer alternative-the off-pump CABG (OPCABG) surgery-on the sexual function. Methods: This prospective study included 100 patients who underwent CABG. Main Outcome Measures: The patients were evaluated by an abridged form of International Index of Erectile Function questionnaire (IIEF-5), Pharmaco-Penile Duplex Ultrasound and finally by the European System for Cardiac Operative Risk Evaluation. The patients were underwent either on-pump CABG or OPCABG. Six months after surgery, the erectile function was revaluated according to the same preoperative measures. Results: Patients included in the study were classified into two matched groups: group I-patients who underwent on-pump CABG (N = 50); and group II-patients who underwent OPCABG (N = 50). The frequency of intercourse was significantly higher in OPCABG (P < 0.05) after surgery. The mean +/- standard deviation of the IIEF-5 scores of the on-pump group postoperatively became 12.48 +/- 7.19 whereas it became 15.88 +/- 6.67 in the off-pump group (P < 0.05). Moreover, the number of patients who reported postoperative improvement of their IIEF-5 score was significantly higher in OPCABG group (N = 23) compared with the conventional on-pump CABG group (N = 13) (P < 0.05). There was no significant change in the duplex ultrasound after surgery between both groups. Conclusions: The OPCABG has a diminished impact on the sexual function of patients compared with the conventional on-pump CABG. Therefore, the type of operation can be considered a predictive factor of sexual function following CAB surgery.
Vascular risk factors as predictors of sexual function following coronary artery bypass graft.

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Abstract

Introduction: A strong association between cardiovascular risk factors and erectile dysfunction (ED) was suggested. Coronary artery bypass grafting (CABG) is the gold standard for surgical myocardial revascularization.

Aim: We herein evaluate the impact of vascular risk factors on postoperative sexual functions in patients undergo CABG.

Main Outcome Measures: ED severity by the International Index of Erectile Function (IIEF-5) and penile duplex study.

METHODS: The present study included 100 patients who underwent CABG. The patients were evaluated by an abridged form of the IIEF-5 questionnaire, followed by CABG. Six months after surgery the erectile function of all patients was re-evaluated utilizing the IIEF-5.

Results: Number of risk factors was significantly associated with postoperative change in IIEF-5 score (P = 0.02). A post hoc analysis of the association revealed that patients with one risk factor were significantly more likely to have increased IIEF-5 scores (N = 18), whereas those with two or more risk factors were significantly more likely to have decreased IIEF-5 scores (N = 21, P < 0.05). Furthermore, those with no risk factors were significantly more likely to be stable (N = 8) compared with those with more than two risk factors, who were more likely to have decreased scores (P < 0.05). The hierarchical logistic regression results showed that when examining all risk factors simultaneously, because of multicollinearity, only hyperlipidemia was significantly associated with postoperative ED (odds ratio [OR] = 11.33, confidence interval [CI] = 1.25, 102.82). Frequency of intercourse was also significantly associated with postoperative ED after controlling for risk factors (OR = 0.71, CI = 0.52, 0.97).

Conclusions: This data clearly shows that the number of cardiovascular risk factors is an essential predictive factor for sexual function following surgery. Only hyperlipidemia may play a predictive role for the future sexual function of patients undergo CABG.
Delayed complications of gel injection for penile girth augmentation

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Abstract

**Introduction:** Penile girth augmentation is a domain of extensive controversy and debate. A variety of methods is available for the choice of the surgeon including dermal-fat grafts and flaps. The need for a simple procedure with minimal donor site has lead to proposing injection therapy for penile augmentation, whether by fat or synthetic materials. AIM: This work reports on a male patient suffering a deforming subcutaneous mass in the penis following penile girth augmentation by injection therapy using synthetic material, and describes its management, and pathologic analysis of the extracted tissue.

**Methods:** The mass was excised through a circumferential subcoronal incision while maintaining skin vascularity and integrity of the corpora. The excised tissue was microscopically examined.

**Main Outcome Measures:** Cosmetic and functional results of surgical correction.

**Results:** Cosmetic and functional outcome were acceptable. Pathology examination revealed features of foreign body granuloma.

**Conclusion:** Injection of fillers for girth augmentation of the penile shaft may result in delayed complications including migration, granulomatous reaction, and resorption that may occur beyond the follow-up span of the currently available study that recommends its use.
Comparing penile measurements in normal and erectile dysfunction subjects.

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Abstract

Introduction: With the increase in penile augmentation procedures it becomes important to assess what is the normal erect penile size in both potent men and men with erectile dysfunction (ED).

Aim: The aim of this work is to define the average stretched penile size in normal men and ED patients.

Main Outcome Measures: Penile length and girth. METHODS: This study included 1,027 adult men presenting to a university hospital outpatient clinic. Two groups of patients were included in this research work. Group I comprises normal adult men (949) and Group II, ED patients (78). There were no differences of race, age, height, and weight. Penile length and girth were measured using a tape measure and rigid ruler in the fully stretched states in both groups. All penile measurements were performed by the same physician.

Results: In normal men (Group I) the mean of the fully stretched length was 12.9 ± 1.9 cm and the mean of the fully stretched girth was 8.9 ± 0.9 cm. In ED patients (Group II), the mean of the fully stretched length was 11.2 ± 1.5 cm and the mean of fully stretched girth was 8.4 ± 0.8 cm. Comparing the mean of fully stretched penile lengths in both groups revealed statistical significant difference (P < 0.001) between them whereas comparing the mean of fully stretched penile girths in both groups revealed statistical nonsignificant difference (P = 0.474) between them. There were significant positive correlations between fully stretched penile lengths and fully stretched penile girths in both groups.

Conclusion: The average of fully stretched penile length in normal potent men is 12.9 cm, whereas the patients with ED tend to have significantly shorter penises (11.2 ± 1.5 cm).
Your job and your erection

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Botulinum toxin a (Botox) for relieving penile retraction.

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Abstract

Introduction: The flaccid penis undergoes retraction upon contraction of the dartos muscle. These contractions are most pronounced in the situations of cold, stress, and upon exercising, and can be the source of embarrassment to those who have a hyperactive retraction reflex, especially when exposed to their partners or to others in showers and dressing rooms, despite a normal and satisfactory length in the erect state. AIM: In this work, we propose an alternative to surgery and penile extenders for alleviating penile retraction, by injection of botulinum toxin into the dartos to induce muscle relaxation. This is the first report of the technique.

Methods: Ten male patients complaining of a short penis exclusively in the flaccid state, despite normal and satisfactory erect and outstretched lengths, were selected for the study. One hundred units of BOTOX were injected into the dartos muscle.

Main Outcome Measures: Frequency and amplitude of penile retraction, flaccid unstretched length, and patient satisfaction.

Results: Seven out of 10 cases (70%) subjectively reported a decrease in the frequency and amplitude of penile retraction, as well as improvement in flaccid length. Clinical measurements were less pronounced but still showed an improvement that was mainly in terms of less retraction rather than more length. No side effects were reported. Improvement faded completely by the 6th month.

Conclusion: This preliminary report of botulinum toxin A (Botox) injection into the dartos muscle shows that Botox may have a potential effect in temporarily decreasing penile retractions in terms of frequency and amplitude.
Clinical parameters that predict successful outcome in men with premature ejaculation and inflammatory prostatitis.

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Abstract

Introduction: Premature ejaculation (PE) is the most common sexual problem, and chronic prostatitis is an important cause of PE. AIM: The aim of this study was to determine which clinical parameters predict successful outcomes following treatment of men with PE and chronic prostatitis (category II and IIIa).

Main Outcome Measure: Change in intravaginal ejaculatory latency time (IELT) and its relation to different clinical parameters.

Methods: This study included 210 heterosexual men with PE and inflammatory prostatitis. PE was found to be acquired in 155 men (A-PE) and lifelong in 55 (LL-PE). All participants were asked to complete the National Institutes of Health-Chronic Prostatitis Symptom Index (NIH-CPSI). Sequential microbiologic specimens were obtained. Antibiotics were given to 184 men for 4 weeks, guided by sensitivity tests. Twenty-six men refused or did not comply with the antimicrobial therapy and were used as the untreated group. Clinical reevaluation was conducted after 28 days.

Results: Two of the 26 men (7.7%) from the untreated group experienced an increase in their ejaculatory latency compared with 109 of the 184 men (59.0%) who received antimicrobial therapy (P = 0.0001). After treatment, 90 of 155 men (58.0%) with A-PE reported ILET > 2 minutes compared with 21 of 55 men (38.2%) with LL-PE (P = 0.012). Based on a receiver operating characteristic curve, antimicrobial therapy is most effective if there are > or =19 pus cells per high-power field (HPF) in the expressed prostatic secretion (EPS) analysis, with a sensitivity of 85.6% and a specificity of 70.7% (area under the curve 0.783, 95% CI 0.716-0.850). Other clinical parameters were not useful in predicting outcomes.

Conclusions: Antimicrobial therapy is useful in the treatment of PE associated with inflammatory prostatitis. The treatment is most effective in men with A-PE and when there are > or =19 pus cells per HPF in an EPS analysis.
The Arabic version of the erection hardness score.

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Effects of losartan, HO-1 inducers or HO-1 inhibitors on erectile signaling in diabetic rats.


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Abstract

Introduction: Activation of the renin-angiotensin system which is common in diabetes mellitus might affect heme oxygenase (HO-1) gene expression. AIM: Assessment of the effects of administration of angiotensin II (Ang II) receptor antagonist (losartan) with HO-1 inducer or inhibitor on erectile signaling in diabetic rats.

Materials and Methods: Seventy male rats were divided equally into seven groups; healthy controls, streptozotocin-induced diabetic rats, rats on citrate buffer, diabetic rats on losartan, diabetic rats on HO-1 inducer (cobalt protoporphyrin [CoPP]), diabetic rats on losartan and CoPP, and diabetic rats on losartan and HO-1 inhibitor (stannus mesoporphyrin [SnMP]).

Main Outcome Measure: HO enzyme activity, HO-1 gene expression, cyclic guanosine monophosphate (cGMP) assay, intracavernosal pressure (ICP), and cavernous tissue sinusoids surface area.

Results: HO-1 gene expression, HO enzymatic activity, and cGMP were significantly decreased in the cavernous tissue of diabetic rats. These parameters were significantly elevated with the use of CoPP that restored the normal control levels of HO enzyme activity. Administration of losartan exhibited a significant enhancing effect on these parameters compared with the diabetic group, but not restored to the control levels, whereas administration of CoPP combined with losartan led to the restoration of their normal levels. ICP demonstrated significant decline in diabetic rats. The use of CoPP and/or losartan led to its significant improvement compared with diabetic rats. Administration of either losartan and/or CoPP led to a significant increase in the cavernous sinusoids surface area of diabetic rats. Administration of losartan with SnMP significantly decreased the enhancing effect of losartan on the studied parameters.

Conclusion: The decline in erectile function in diabetes mellitus could be attributed to the downregulation of HO-1 gene expression. HO-1 induction added to Ang II receptor antagonist could improve erectile function.
Hypercalcemia in advanced head and neck squamous cell carcinoma: prevalence and potential impact on palliative care.

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Abstract

Hypercalcemia is common in patients with advanced head and neck squamous cell carcinoma (HNSCC). In this study, hypercalcemia was detected in 46 (51%) of 90 eligible patients with HNSCC over 4 years. Compared with nonhypercalcemics, hypercalcemics were more likely to be referred to palliative care, while they were inpatients (P = 0.004). During the last 3 months of follow-up, hypercalcemic patients were more likely than nonhypercalcemics to be hospitalized for ≥ 14 days (P = 0.01) and to visit the emergency room more than once (P = 0.04). The median survival from the first hypercalcemic episode was 74 days (95% CI, 0-234). With data calculated from the date of referral to palliative care, hypercalcemics had a shorter survival than did nonhypercalcemics (43 vs 128 days, respectively; P = 0.046). Early detection and management of hypercalcemia in patients with HNSCC may improve the chance of preventing distressing symptoms and reducing unnecessary frequent emergency room visits and lengthy hospitalization.
Cardiac echinococcosis of the interventricular septum in early childhood: report of two cases.

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Acute lower respiratory tract infection due to Chlamydia and Mycoplasma spp. in Egyptian children under 5 years of age.


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Ghrelin levels in children with congenital heart disease.

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Abstract

Background: Ghrelin is a novel growth hormone-releasing peptide that causes a positive energy balance by stimulating food intake and inducing adiposity and has effects on growth. Many children with congenital heart disease (CHD) present with growth retardation and malnutrition owing to multifactorial reasons.

Aim: To evaluate the circulating level of ghrelin in Egyptian children with congenital cyanotic and acyanotic heart disease and its relation to anthropometric measurements.

Materials and Methods: The study included 40 patients with cyanotic and acyanotic CHD (18 cyanotic and 22 acyanotic) and 18 age- and sex-matched healthy control children. All children were subjected to measurement of height, weight, body mass index (BMI) and serum ghrelin was measured using ELISA technique.

Results: Weight, height and BMI were significantly lower in cyanotic and acyanotic patients compared to the control group (p = 0.0001). Serum ghrelin levels were significantly higher in children with cyanotic and acyanotic CHD in comparison to the controls (p = 0.0001). There was a significant negative correlation between ghrelin and BMI in the three groups (r = -0.534, p = 0.023; r = -0.558, p = 0.007; r = -0.608, p = 0.007 respectively for cyanotic, acyanotic and the control groups).

Conclusion: Circulating ghrelin level was elevated in children with congenital cyanotic and acyanotic heart disease, and was associated with a decrease in BMI. This elevation in ghrelin level may represent malnutrition and growth retardation in those patients as obvious by anthropometric measures too. This may suggest that ghrelin may have an important role as a compensatory mechanism in the regulation of the metabolic balance in them.
Purpose: Recent data demonstrate that age may be a significant independent prognostic variable following treatment for renal cell carcinoma. We analyzed data from the SEER (Surveillance, Epidemiology and End Results) database to evaluate the relative survival of patients treated surgically for localized renal cell carcinoma as related to tumor size and patient age.

Materials and Methods: Patients in the SEER database with localized renal cell carcinoma were stratified into cohorts by age and tumor size. Three and 5-year relative survival, the ratio of observed survival in the cancer population to the expected survival of an age, sex and race matched cancer-free population, was calculated with SEER-Stat. Brown's method was used for hypothesis testing.

Results: A total of 8,578 patients with surgically treated, localized renal cell carcinoma were identified. While 3 and 5-year survival for patients with small (less than 4 cm) renal cell carcinoma was no different from that of matched cancer-free controls, patients treated for large (greater than 7 cm) localized renal cell carcinoma experienced decreased 5-year relative survival across all age groups. Therefore, age was not a significant predictor of relative survival for patients with small (less than 4 cm) or large (greater than 7 cm) tumors. However, a statistically significant trend toward lower relative survival with increasing age was demonstrated in patients with medium size tumors (4 to 7 cm). Hypothesis testing confirmed these findings.

Conclusions: These data suggest that relative survival is high in patients with tumors less than 4 cm and lower in patients with tumors larger than 7 cm regardless of age. However, increasing age may be related to worse outcomes in patients with tumors 4 to 7 cm. The cause of this observation warrants further investigation.
Seminal plasma survivin in fertile and infertile males

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Abstract

Purpose: We assessed survivin (an inhibitor of apoptosis) protein in the seminal plasma of infertile and fertile males.

Materials and Methods: Seminal plasma survivin was estimated by enzyme-linked immunosorbent assay in 23 healthy fertile volunteers, 22 men with oligoasthenozoospermia, 37 with nonobstructive azoospermia and 12 with obstructive azoospermia. Histopathology and testicular sperm extraction were done in testicular tissue biopsies from obstructive azoospermia and nonobstructive azoospermia cases.

Results: Mean seminal survivin was highest in fertile controls, less in oligoasthenozoospermic cases and low in nonobstructive azoospermia cases with significant differences. In obstructive azoospermia cases seminal plasma survivin was absent. Seminal survivin positively correlated with sperm concentration and total sperm motility, and negatively correlated with the percent of sperm abnormal forms. Seminal survivin was detectable in nonobstructive azoospermia cases in which testicular sperm extraction was successful but absent in such cases when testicular sperm extraction was unsuccessful.

Conclusions: Seminal survivin is testicular in origin. It is related to spermatogenesis and sperm motility processes. Seminal survivin was related to successful testicular sperm extraction in nonobstructive azoospermia cases.
Low-dose simultaneous delivery of adenovirus encoding hepatocyte growth factor and vascular endothelial growth factor in dogs enhances liver proliferation without systemic growth factor elevation.

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Abstract

Background: Hepatocyte growth factor (HGF) and vascular endothelial growth factor (VEGF) gene transfer proved to enhance liver regeneration. However, elevation of their plasma levels may induce potentially serious distant effects such as tumorigenesis or proliferative retinopathy.

Aims: This study was performed to examine whether simultaneous administration of low-dose adenovirus encoding HGF and VEGF genes in dogs will stimulate liver proliferation but without inducing liver toxicity or systemic elevation of HGF and VEGF levels.

Methods: Adult dogs received an intravenous injection of low-dose adenoviral vectors encoding human HGF and VEGF (HGF/VEGF), beta-galactosidase (lacZ) or phosphate-buffered saline (PBS). Liver proliferation was measured using the proliferating cell nuclear antigen (PCNA) immunostaining labelling index. HGF and VEGF plasma concentrations and transaminases were repeatedly measured. Transgene expression was evaluated using reverse-transcription polymerase chain reaction.

Results: Human HGF and VEGF expressions were detected only in the liver of HGF/VEGF dogs at day 2 after injection but declined at sacrifice (day 7). No expression was detected in the liver of the lacZ or PBS groups. Plasma levels of HGF and VEGF were not statistically different from those in the lacZ group (P=0.81, P=0.22 respectively). The PCNA labelling index was five-fold higher in the HGF/VEGF group compared with the lacZ group (P<0.01). No immunostaining was detected in the PBS group. Transaminases were only elevated (P<0.01) in the lacZ group compared with the other groups.

Conclusions: We showed that simultaneous administration of low-dose adenoviral vectors encoding human HGF and VEGF genes can induce transgene expression and liver proliferation without liver toxicity or systemic growth factor elevation.
Low-grade endometrial stromal sarcoma with intravenous extension to the heart


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Abstract

Endometrial stromal sarcoma (ESS) is a rare neoplasm of uterine origin. Intracardiac metastasis from this tumor is extremely infrequent. This report describes a 24-year-old woman from Yemen who had irregular vaginal bleeding shortly after spontaneous abortion. She developed left-lower-limb swelling, diagnosed by duplex scanning and magnetic resonance imaging as deep venous thrombosis in the inferior vena cava (IVC) that extended into the iliac veins on both sides, as well as the left femoral vein and right atrium. She developed acute respiratory distress, from which she recovered after transfer to the intensive care unit. Transesophageal echocardiography showed a large mass occupying the right atrium and ventricle and another mass in the right ventricular outflow tract with areas of cavitations. The tumor appeared to come from the IVC and extended through the right atrium and right ventricle into the pulmonary artery, ending in several digit-like projections. After surgical resection of the intracardiac mass, pathologic examination revealed a low-grade ESS that was confirmed by immunohistochemistry. The patient underwent panhysterectomy and IVC debridement. Pathologic examination revealed infiltrating low-grade endometrial sarcoma invading the myometrium and left adnexa, with intravenous extension into the pelvic veins and the IVC to the right side of the heart. This case shows that despite its well-known good prognostic nature, low-grade ESS may behave as an aggressive malignancy.
The effect of memantine and levodopa/carbidopa on the responses of phrenic nerve-diaphragm preparations from aged rats

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Abstract

Background: Alzheimer's dementia (AD) and Parkinsonism are common in geriatric patients. Skeletal muscles are important for proper function of aging animals and humans. This study focuses on the influence of memantine (used in moderate to severe AD) and levodopa/carbidopa (LD/CD) (a cornerstone of Parkinson's disease treatment) on responses of isolated phrenic nerve-diaphragms (IPNDs) of aged male rats.

Material/Methods: Of 100 aged male albino rats, 20 were untreated to study the in vitro effects of memantine and LD/CD on IPNDs and 80 were divided into groups 1 (control), 2 (oral memantine, 1.5 mg/kg/d), 3 (twice daily intraperitoneal LD/CD, 25/2.5 mg/kg), and 4 (both drugs). After three weeks-treatment the animals were sacrificed. Ten rats from each group were used to harvest IPNDs to study the effect of gallamine and 10 rats to measure nAchR (nicotinic acetylcholine receptor) alpha subunit mRNA by PCR.

Results: The heights of indirectly elicited contractions were 63.1 ± 4.6, 41.5 ± 4.5, 70.6 ± 4.7, and 53.9 ± 3.3 mm for groups 1-4, respectively, and all differences were statistically significant (p<0.05). Memantine caused a leftward shift of the gallamine concentration-response curve and LD/CD a rightward shift. Reversal of neuromuscular block required larger neostigmine concentrations in the memantine group and smaller concentrations in the LD/CD group. In vitro, memantine inhibited diaphragmatic responses to indirect stimulation. Values of nAchR alpha subunit mRNA (microg/dl) were 0.7 ± 0.16 (control), 0.13 ± 0.11 (memantine), 2.3 ± 0.94 (LD/CD), and 1.18 ± 0.71 (both drugs) (p<0.05).

Conclusions: Memantine inhibits neuromuscular transmission in vitro and with in vivo treatment. LD/CD treatment enhances neuromuscular transmission. Clinical implications need further investigation.
Assessment and management of children with visual impairment.

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Purpose: The aim of this work was to evaluate the role of low vision aids in improving visual performance and response in children with low vision.

Study Design: Prospective clinical case series.

Materials and Methods: This study was conducted on 50 patients that met the international criteria for a diagnosis of low vision. Their ages ranged from 5 to 15 years. Assessment of low vision included distance and near visual acuity assessment, color vision and contrast sensitivity function. Low vision aids were prescribed based on initial evaluation and the patient's visual needs. Patients were followed up for 1 year using the tests done at the initial examination and a visual function assessment questionnaire.

Results: The duration of visual impairment ranged from 1 to 10 years, with mean duration ± SD being 4.6 ± 2.3299. The near visual acuities ranged from A10 to A20, with mean near acuity ± SD being A13.632 ± 3.17171. Far visual acuities ranged from 6/60 (0.06) to 6/24 (0.25), with mean far visual acuity ± SD being 0.122 ± 0.1191. All patients had impaired contrast sensitivity function as tested using the vision contrast testing system (VCTS) chart for all spatial frequencies. Distance and near vision aids were prescribed according to the visual acuity and the visual needs of every patient. All patients in the age group 5-7 years could be integrated in mainstream schools. The remaining patients that were already integrated in schools demonstrated greater independency regarding reading books and copying from blackboards.

Conclusion: Our study confirmed that low vision aids could play an effective role in minimizing the impact of low vision and improving the visual performance of children with low vision, leading to maximizing their social and educational integration.
Detection of early glaucomatous damage in pseudo exfoliation syndrome by assessment of retinal nerve fiber layer thickness.

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Abstract

**Purpose:** To detect early glaucomatous changes in pseudo exfoliative patients with normal intraocular pressure (IOP), visual field and optic nerve head appearance by measuring retinal nerve fiber layer (RNFL) thickness using optical coherence tomography (OCT).

**Design:** A prospective observational case-control study.

**Participants:** Twenty non-glaucomatous (normal IOP, fundus and visual field) pseudo exfoliative patients and 20 age matched healthy control subjects.

**Materials and Methods:** The RNFL thickness (global and four quadrants) was assessed using combined imaging system OTI (OCT/SLO) and compared with age matched normal control subjects.

**Results:** The RNFL in patients with pseudo exfoliation syndrome (PXS) was significantly thinner in all quadrants except the nasal quadrant compared to the control group (p less than 0.05).

**Conclusion:** Measurement of RNFL thickness by OCT is useful in detecting early RNFL damage which in turn provides clinically relevant information in detecting early glaucomatous changes in pseudo exfoliative patients.
Comparative study of neuromuscular blocking and hemodynamic effects of rocuronium and cisatracurium under sevoflurane or total intravenous anesthesia.

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Abstract

Neuromuscular blockers (NMB) are important adjuvant to general anesthesia. Rocuronium bromide and cisatracurium besylate are considered relatively recently introduced non-depolarizing muscle relaxants. Objectives: This study evaluates the enhancement of cisatracurium and rocuronium-induced neuromuscular block during anesthesia with 1.5 MAC sevoflurane or total i.v. anesthesia (TIVA)-(hemodynamic effects and side effects. Methodology: 80 patients were randomly allocated into one of four equal Groups to receive either rocuronium (under sevoflurane or propofol TIVA) or cisatracurium (under sevoflurane or propofol TIVA). The NMB effects of rocuronium and cisatracurium were studied by constructing dose-effect curves. Acceleromyography (TOF-Guard) and train-of-four (TOF) stimulation of the ulnar nerve were used (2 Hz every 15 sec). Cisatracurium and rocuronium were administered in increments until depression of T1/T0 > 95% was reached. Hemodynamic effects of both muscle relaxants together with sevoflurane or propofol were assessed using thoracic bioimpedance. Results: Depression of T1/T0 was enhanced under sevoflurane compared to TIVA. ED50 and ED95 values of both drugs were significantly lower under sevoflurane more than TIVA. Recovery index 25-75% and time to a TOF ratio of 0.70 were prolonged significantly by sevoflurane compared to TIVA. Hemodynamically, rocuronium and cisatracurium did not exert significant changes, but the interaction of the relaxants and the anesthetic agents resulted in statistically significant decline in some hemodynamic parameters at certain periods which are not clinically significant and required no medications. Conclusion: We conclude that the effects of rocuronium and cisatracurium are significantly enhanced during sevoflurane compared with propofol anesthesia and the recovery is lower.
GDC 360 degrees for the endovascular treatment of intracranial aneurysms: a matched-pair study analysing angiographic outcomes with GDC 3D Coils in 38 patients.


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Abstract

Introduction: The purpose of this study was to determine whether coil embolisation with a new complex-shaped Guglielmi Detachable Coil (GDC 360 degrees; Boston Scientific Neurovascular, Fremont, CA, USA) has any effect on the stability of aneurysm occlusion.

Materials and Methods: Fifty-one consecutive patients with intracranial aneurysms treated with GDC 360 degrees were included. Angiographic results and adverse neurological events during the follow-up period were recorded. For 38 patients treated with GDC 360 degrees with available follow-up data, a corresponding patient treated with GDC 3D was identified from our database. Matches were sought for rupture status, location, aneurysmal size, and neck size. The angiographic outcome of these matched controls at 6 months was compared to aneurysms treated with GDC 360 degrees.

Results: Initial angiographic controls for 38 patients treated with GDC 360 degrees showed complete occlusion in 32 aneurysms, and a neck remnant in six. At 6-month follow-up, complete occlusion was found in 29, a neck remnant in eight, and a residual aneurysm in one. One patient treated with GDC 360 degrees needed retreatment for a major recanalisation. In 38 matched patients treated with GDC 3D, initial angiographic controls found complete aneurysmal occlusion in 30 aneurysms and a residual neck in 8. At 6-month follow-up, 24 aneurysms were completely occluded, ten showed a neck remnant, and residual aneurysms were seen in four. Four patients, treated with GDC 3D, were retreated for major aneurysm recanalisations.

Conclusion: Our data suggests that endovascular coil embolisation with GDC 360 degrees might improve long-term stability of coiled aneurysms when compared to GDC 3D.
Fetal MRI in the evaluation of fetuses referred for sonographically suspected neural tube defects (NTDs): impact on diagnosis and management decision.

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Abstract

Introduction: We hypothesized that magnetic resonance imaging (MRI) can assess fetuses with sonographically (ultrasonography (US))-suspected neural tube defects (NTD) that might influence their diagnoses and management decision.

Methods: Institutional review board approval and informed consents were obtained to perform MRI for 19 fetuses referred with US-suspected NTD. Prenatal imaging findings were correlated with management decision, postnatal clinical, postnatal imaging, and pathology.

Results: Prenatal MRI correctly ruled out US diagnosis of cephalocele in a fetus. In the other 18 fetuses, MRI detected detailed topography and contents of NTD sacs in five, added central nervous system (CNS) abnormalities that were not apparent on US in three, and confirmed non-CNS findings in three fetuses. MRI changed diagnosis of 3/19 fetuses (15.8%), caused minor change in diagnosis of 5/19 (26.3%), and did not influence US diagnosis of 11/19 fetuses (57.9%). MRI findings changed/modified management decision in 21% of the fetuses.

Conclusion: Fetal MRI is an important adjunct to US in assessing NTD. It can identify topography and contents of sacs, add CNS and non-CNS findings, and influence management decision.
Endoscopic treatment of third ventricular colloid cysts: a review including ten personal cases

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Abstract
The surgical treatment of colloid cysts has been traditionally difficult with high rate of postoperative complications. The variety of surgical options reflects the technical difficulty in removing these benign lesions with low morbidity. Microsurgical removal has for years been considered the "gold standard" of treatment, with the use of either a transcortical-transventricular or a transcallosal approach. Neuroendoscopic management is emerging as a safe, effective alternative to microsurgery. The present review discusses the role of endoscopy in the surgical treatment of third ventricular colloid cysts focusing on some factors, which might influence the outcome. The results have been presented from the literature and supplemented by the results of treating ten personal cases of third ventricular colloid cysts who were operated endoscopically in the Neurosurgical Department, Cairo University. This study aims at evaluating the endoscopic approach as a surgical line of treatment in the management of third ventricular colloid cysts and to see if it has already become superior over microsurgery.
Ligneous conjunctivitis with oral mucous membrane involvement and decreased plasminogen level.

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Abstract

Ligneous conjunctivitis (MIM 217090) is a rare autosomal recessive hereditary disorder. We report a case with both ligneous conjunctivitis and ligneous periodontitis in association with plasminogen type I deficiency. Diagnosis was based on the clinical and histological findings and most importantly, decreased serum level of plasminogen type I.
Complete remission of nephrotic syndrome in an infant with focal segmental glomerulosclerosis: is it renin-angiotensin blockade?

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Abstract

Nephrotic syndrome presenting in the first year of life is often challenging, with substantial risk of progression to end-stage renal disease (ESRD). Focal segmental glomerulosclerosis (FSGS) comprises up to 20% of biopsy-proven glomerular disease in children and adults. We report on a 9-month-old infant who presented with nephrotic syndrome, hypertension and progressive deterioration of renal function due to FSGS. As immunosuppressive agents are often unsuccessful in treating this condition, we adopted renoprotection as the mainstay treatment for this patient, through rigorous control of blood pressure and proteinuria with a multi-drug regimen including renin-angiotensin axis blockade. Initially, there was partial improvement, with a gradual decline in proteinuria and a concomitant rise in the glomerular filtration rate, before the disease eventually passed into complete clinical and laboratory remission. We speculate that infants with steroid-resistant nephrotic syndrome due to FSGS may benefit from tight control of hypertension, mainly though early blockade of the renin-angiotensin axis. We believe that its renoprotective mechanism counteracts the deleterious effects of both hypertension and proteinuria, thereby not only preventing progressive renal disease, but even paving the way for a remission, as in our patient. To the best of our knowledge, this is the first report of an infant with nephrotic syndrome (NS) due to FSGS that passed into complete remission while the patient was on renoprotective measures including the use of angiotensin-converting enzyme inhibitors (ACEis).
A randomized controlled trial to assess the safety and efficacy of silymarin on symptoms, signs and biomarkers of acute hepatitis.


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Abstract

PURPOSE: Milk thistle or its purified extract, silymarin (Silybum marianum), is widely used in treating acute or chronic hepatitis. Although silymarin is hepatoprotective in animal experiments and some human hepatotoxic exposures, its efficacy in ameliorating the symptoms of acute clinical hepatitis remains inconclusive. In this study, our purpose was to determine whether silymarin improves symptoms, signs and laboratory test results in patients with acute clinical hepatitis, regardless of etiology. METHODS: This is a randomized, placebo-controlled trial in which participants, treating physicians and data management staff were blinded to treatment group. The study was conducted at two fever hospitals in Tanta and Banha, Egypt where patients with symptoms compatible with acute clinical hepatitis and serum alanine aminotransferase (ALT) levels >2.5 times the upper limit of normal were enrolled. The intervention consisted of three times daily ingestion of either a standard recommended dose of 140 mg of silymarin (Legalon, MADAUS GmbH, Cologne, Germany), or a vitamin placebo for four weeks with an additional four-week follow-up. The primary outcomes were symptoms and signs of acute hepatitis and results of liver function tests on days 2, 4 and 7 and weeks 2, 4, and 8. Side-effects and adverse events were ascertained by self-report. RESULTS: From July 2003 through October 2005, 105 eligible patients were enrolled after providing informed consent. No adverse events were noted and both silymarin and placebo were well tolerated. Patients randomized to the silymarin group had quicker resolution of symptoms related to biliary retention: dark urine (p=0.013), jaundice (p=0.02) and scleral icterus (p=0.043). There was a reduction in indirect bilirubin among those assigned to silymarin (p=0.012), but other variables including direct bilirubin, ALT and aspartate aminotransferase (AST) were not significantly reduced. CONCLUSIONS: Patients receiving silymarin had earlier improvement in subjective and clinical markers of biliary excretion. Despite a modest sample size and multiple etiologies for acute clinical hepatitis, our results suggest that standard recommended doses of silymarin are safe and may be potentially effective in improving symptoms of acute clinical hepatitis despite lack of a detectable effect on biomarkers of the underlying hepatocellular inflammatory process.
A fast radiotherapy paradigm for anal cancer with volumetric modulated arc therapy (VMAT).


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Abstract

Background/Purpose: Radiotherapy (RT) volumes for anal cancer are large and of moderate complexity when organs at risk (OAR) such as testis, small bowel and bladder are at least partially to be shielded. Volumetric intensity modulated arc therapy (VMAT) might provide OAR-shielding comparable to step-and-shoot intensity modulated radiotherapy (IMRT) for this tumor entity with better treatment efficiency.

Materials and Methods: Based on treatment planning CTs of 8 patients, we compared dose distributions, confromality index (CI), homogeneity index (HI), number of monitor units (MU) and treatment time (TTT) for plans generated for VMAT, 3D-CRT and step-and-shoot-IMRT (optimized based on Pencil Beam (PB) or Monte Carlo (MC) dose calculation) for typical anal cancer planning target volumes (PTV) including inguinal lymph nodes as usually treated during the first phase (0-36 Gy) of a shrinking field regimen.

Results: With values of 1.33 ± 0.21/1.26 ± 0.05/1.3 ± 0.02 and 1.39 ± 0.09, the CI's for IMRT (PB-Corvus/PB-Hyperion/MC-Hyperion) and VMAT are better than for 3D-CRT with 2.00 ± 0.16. The HI's for the prescribed dose (HI36) for 3D-CRT were 1.06 ± 0.01 and 1.11 ± 0.02 for VMAT, respectively and 1.15 ± 0.02/1.10 ± 0.02/1.11 ± 0.08 for IMRT (PB-Corvus/PB-Hyperion/MC-Hyperion). Mean TTT and MU's for 3D-CRT is 220s/225 ± 11MU and for IMRT (PB-Corvus/PB-Hyperion/MC-Hyperion) is 575s/1260 ± 172MU, 570s/477 ± 84MU and 610s748 ± 193MU while TTT and MU for two-arc-VMAT is 290s/268 ± 19MU.

Conclusion: VMAT provides treatment plans with high conformity and homogeneity equivalent to step-and-shoot-IMRT for this mono-concave treatment volume. Short treatment delivery time and low primary MU are the most important advantages.
First versus second eye intravitreal ranibizumab therapy for wet AMD.
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Abstract
Purpose: To evaluate the short-term visual outcomes after intravitreal ranibizumab for wet age-related macular degeneration, when used in first eyes (good vision in the untreated eye) compared with second eyes (significant visual impairment in the untreated eye).

Methods: Seventy-five consecutive patients who received intravitreal ranibizumab injection were divided into Group A, comprising 35 first eyed patients and Group B, comprising 40 second eyes. Visual acuity and contrast sensitivity was compared before treatment, and 3 months after the 3rd injection. Results were compared at 95% confidence interval.

Results: Mean pretreatment logMar visual acuity was 0.86 (standard deviation 0.28) in Group A whereas Group B was 0.66 (standard deviation 0.36) (P = 0.007). Posttreatment the mean visual acuity in Group A was 0.63 (standard deviation 0.37) and in Group B was 0.44 (standard deviation 0.33) (P = 0.02). The mean numbers of letters gained per patient were 11.1 (Group A) and 10.6 (Group B). Half of all patients showed significant improvement of visual acuity (> or =15 letters gain). Contrast sensitivity significantly improved in both groups and was usually, but not always, associated with visual gain.

Conclusion: Second eye patients tend to present to clinical diagnosis at a better visual acuity than first ones and subsequently have better chances for better posttreatment visual acuity. However, both groups have an equal chance of significant visual improvement.
Clinical features of Behcet's disease in Egypt.

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Abstract

Behcet's disease (BD) is a chronic relapsing multisystem disease of unknown etiology. Ethnic origin is one of the factors that may modulate the prevalence and the expression of BD. To study the clinical characteristics of Egyptian patients with BD, and compare the pattern of the disease in Egyptians with studies from other countries. Sixty-three patients with BD were studied over a 4-year period. A rheumatologist, dermatologist, neurologist and other specialists as indicated assessed the patients clinically. Laboratory and radiological examinations were done to confirm the diagnosis to rule out any condition that may mimic BD. Sixty-one patients were men, two were women, the mean age of the patients was: 32.8 +/- 8.3 years, age of onset of the disease varied between 17 and 37.4 years. The initial presenting manifestation was oral ulcers in 39.7% of patients, followed by orogenital ulcers in 23.8%, followed by deep venous thrombosis in 7.9% Throughout the study period, the commonest manifestation was oral ulcers (100%), followed by genital ulcers (96.8%), vascular lesions (57.1%), cutaneous (55.5%), ocular (47.6%), joint (36.5%), neurological (34.9%), gastrointestinal (19%) and cardiac (6.3%). BD in Egyptians shows higher male-to-female ratio and higher incidence of vascular and neurological lesions.
Systemic lupus erythematosus in Egyptian children.

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Abstract

The aim of the study was to study the characteristics of systemic lupus erythematosus (SLE) in the Egyptian population, comparing it to other populations. We retrospectively studied 207 patients with SLE diagnosed between 1990 and 2005. We obtained clinical features and laboratory data and analyzed them statistically. We studied 151 female and 56 male SLE patients. The female to male ratio was 2.7 to 1 and the mean age at presentation was 10 +/- 2.7 years (range 2-16). The mean disease duration was 6.47 +/- 3.74 years. At diagnosis, musculoskeletal, constitutional and mucocutaneous manifestations were the commonest features. During follow-up, the prevalence of nephritis (67%), hematological manifestations (44.9%), photosensitivity (44%), arthritis (39%), malar rash (38.2%), serositis (32.9%) and neuropsychiatric manifestations (24.25%) increased significantly. Those whose age of onset of the disease was <=5 years (nine patients) had significantly more common hematological affection (P value = 0.0005). The characteristics of SLE in Egyptian patients show some similarities to other series of Middle Eastern countries, but with a lower female to male ratio. Disease onset below 5 years is extremely rare (4.35%), commonly presenting with hematological manifestations. The kidney was the commonest major internal organ involved, and also an important cause of death.
The relation between dual energy x-ray absorptiometry measurement of body fat composition and plasma ghrelin in patients with end-stage renal disease.

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Abstract

Objective: To clarify the role of ghrelin in malnutrition in uremia and its relationship to fat composition using dual x-ray absorptiometry (DXA).

Methods: This is a cohort study including Group I: 60 patients with end stage renal disease 30 on hemodialysis [group IA] and 30 pre-dialysis [group IB] and Group II: 20 controls. This study was carried out in Cairo University Hospital, Kasr Al-Aini, Cairo, Egypt in 2007. Body fat composition (total, differential, and lean body mass) was assessed using DXA, and plasma ghrelin was measured.

Results: Ghrelin was significantly higher in hemodialysis and pre-dialysis groups compared to the control group, and higher in hemodialysis group compared to the pre-dialysis group. In hemodialysis, ghrelin was negatively correlated with weight, body mass index (BMI), and truncal fat mass, and positively correlated with serum creatinine. In pre-dialysis, ghrelin inversely correlated with weight, BMI, and truncal fat mass, and positively correlated with serum creatinine, lean body mass. In control, plasma ghrelin showed negative correlation with weight, BMI, truncal fat mass, and body fat mass, and positive correlation with lean body mass.

Conclusion: Ghrelin was markedly elevated in renal failure due to its decrease in excretion. Negative correlation between ghrelin and fat composition was detected in dialysis patients. Serial evaluation of body fat composition using DXA is recommended for assessment of nutritional status of those patients.
All pedicle screw instrumentation for Scheuermann's kyphosis correction: is it worth it?

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Abstract

Background Context: Scheuermann’s kyphosis has long been treated by a two-staged fusion and instrumentation with a hybrid construct using hooks, pedicle screws, and sublaminar wires. Recent interest in all pedicle screw constructs led to its use in treating Scheuermann's kyphosis.

Purpose: To compare the results of segmental all pedicle screw constructs versus two-staged hybrid instrumentation in patients with Scheuermann's kyphosis analyzing the amount of correction and incidence of complications.

Study Design: Retrospective case series reporting on two groups of patients with Scheuermann's kyphosis treated with single-staged all pedicle screws technique versus two-staged anterior release and posterior hybrid instrumentation followed-up for a minimum of 2 years.

Patient Sample: The study included 33 patients divided into two groups. The average age was 15 years ± 9 months and 16 years ± 8 months, respectively. The average preoperative dorsal kyphosis was 85.5 degrees (Group 1) and 79.8 degrees (Group 2).

Outcome Measures: The deformity was measured by Cobb's method preoperatively, postoperatively, and at final follow-up. Operative time and blood loss were also measured and recorded. The results of the Scoliosis Research Society (SRS)-30 questionnaire were also reviewed.

Methods: The study included 16 patients who underwent a single-staged correction by segmental all pedicle screw constructs and multiple-level posterior osteotomies (Group 1) and 17 who underwent a 2-staged fusion and instrumentation with a hybrid construct (Group 2).

Results: Both groups were followed for a minimum of 2 years. The deformity correction of Group 1 had an average of 52.2% postoperatively with 2.4% loss at final follow-up in comparison to Group 2 where the correction was 48.7% postoperatively with 3.1% loss at final follow-up. Operative time was considerably less in Group 1 with an average of 215 minutes than Group 2 with an average of 315 min. The average blood loss was 620cc in Group 1 and 910cc in Group 2. SRS-30 questionnaire in Group 1 averaged 134 and in Group 2 averaged 120.

Conclusions: Use of multiple-level all pedicle screws technique allowed a rigid anchor for posterior correction of the deformity with less operative time, blood loss, and hospital stay without the need for anterior release. A better correction was achieved and preserved with the use of all pedicle screw constructs. This technique is a useful modality in the treatment of Scheuermann’s kyphosis.
Is cardiotoxicity still an issue after breast-conserving surgery and could it be reduced by multifield IMRT?


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Abstract

Background: Postoperative radiotherapy after breast cancer surgery effectively reduces local relapses. A survival benefit after breast conservation, however, has only been proven recently which was in part due to excessive cardiac mortality of patients who had been treated with radiotherapy in the past.

Material and Methods: The literature on postoperative radiotherapy for breast cancer was reviewed with regard to cardiac toxicity as the basis for hypothesis generation.

Results: From numerous publications on cardiac toxicity of breast cancer radiotherapy, the following pattern emerges: in series where a high radiation dose was applied to a significant percentage of the heart (postmastectomy and postlumpectomy series) cardiac toxicity/mortality was increased versus a nonexposed cohort or for left over right disease. If, however, a relevant exposure of cardiac muscle could be more or less excluded based on the technique used (mainly more recent postlumpectomy radiotherapy), no cardiac toxicity was observed. Series for which individual dose exposure varied or could not be clarified also came to varying conclusions. Also due to retrospectively unclear dose distributions, an exact quantification of tolerance doses/effects of different geographic dose distribution patterns could not be performed to date. A particularly difficult question to answer is the threshold volume for clinically relevant cardiotoxicity with tangential radiotherapy at prescription doses. As a consequence, this precludes an estimate in which situations multifield intensity-modulated radiotherapy (IMRT) with its characteristic dose distribution pattern of a larger volume exposed to intermediate doses and higher mean/median heart doses (as shown in Figure 1) might be preferable.

Conclusion: This review updates the database on cardiac toxicity of breast cancer radiotherapy with special emphasis regarding the issues related to the clinical use of IMRT. Multifield IMRT may reduce the cardiac risk for a small subset of patients at excessive risk with conventional tangential radiotherapy due to unfavorable thoracic geometry, for whom partial-breast radiotherapy is not an option. Due to further concern about the effects of intermediate doses to larger heart volumes, potentially increased contralateral cancer risk and the long latency of clinically apparent toxicity, the introduction of breast IMRT should be closely followed. Accompanying functional studies may have the potential to detect cardiac toxicity at an earlier time.
Double-loop Puborectoplasty: Novel Technique for the Treatment of Fecal Incontinence

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Abstract

The treatment of neurogenic and traumatic fecal incontinence (FI) as may result from severe anal sphincteric destruction is problematic. A novel technique for the treatment of these cases is presented. The study comprised 44 patients, which included 28 with neurogenic and 16 with traumatic FI. Patients were divided into two equal groups. Two fascia lata slings (FLS) were applied in Group 1, while one sling was used in Group 2. Investigations comprised manometric and electromyographic studies. The procedure consisted of performing a curvilinear incision behind the anal orifice, and the supralelevator region was entered. The middle of an FLS was sutured to the back of the upper part of anal canal. Each of the two limbs of the sling was passed forward through an incision on the pubic ramus and was sutured to the periosteum of the pubic ramus. This was preformed in Groups 1 and 2. A second FLS was added in Group 1. Its center was sutured to the front of the mid anal canal and its two limbs to the coccyx. Satisfactory results (continence scores 1 and 2) were obtained in 63.6% of Group 1 and 36.4% of Group 2. Significant postoperative anal pressure increase occurred in scores 1 to 3 in Group 1 and in scores 1 to 2 in Group 2. Anal pressure increase was more prominent in Group 1 than in Group 2. The continent effect of the operation appears to be due to the increase of anal pressure, anal canal elongation, and recto-anal angulation. The operation is indicated in FI of the idiopathic or traumatic type with excessive sphincteric loss. It is simple and easy and performed under no cover of colostomy.
Effect of occupational exposure to elemental mercury in the amalgam on thymulin hormone production among dental staff.

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Abstract

Occupational exposure of dental staff to elemental mercury vapor released from dental amalgam is an issue of concern because of the possible immunological and neurological adverse outcomes. Recently, studies have reported that inorganic mercury induces immunosuppression by decreasing the production of thymus gland hormone (thymulin). This study aimed at investigating mercury body burden in dental staff and the relation of this burden to the potential impact of mercury on thymus gland hormone level (thymulin). Besides, the work aimed at verifying mercury effect on nitric oxide synthetase as a possible mechanism of its immunotoxicity. The study population consisted of a group of dental staff (n = 39) [21 dentists and 18 nurses] and a matched control group (n = 42). Each individual was subjected to detailed occupational and medical history taking and to estimation of urinary mercury (U-Hg) and blood mercury (B-Hg) as indicators of mercury body burden and exposure, respectively. Measurement of total thymulin hormone blood level, and plasma level of nitrite and nitrate (indicators of nitric oxide) was also done. The study showed a significantly increased U-Hg and B-Hg levels in the dental staff compared to their controls. This elevation of mercury body burden was associated with significant reduction in thymulin hormone blood level and nitric oxide parameters. These results were more evident in the group of nurses compared to the dentists. In conclusion, our results show that dentists and dental nurses have significant exposure to mercury vapor and point to the negative impact of mercury on thymus gland functions and confirm the implication that the nitric oxide pathway is a possible mechanism for this impact. Moreover, the study raises attention to the importance of hygiene measures in reduction of exposure to mercury vapor released from dental amalgam.
**A pilot study was performed on adult polycystic kidney disease (PCKD) patients to examine the effects of the anti-proliferative mammalian target of rapamycin inhibitor sirolimus on the growth of renal cysts. Eight consecutive PCKD patients were given sirolimus (1 mg/d PO) for 6 consecutive months, in addition to an angiotensin receptor blocker (ARB), namely telmisartan. Another 8 PCKD patients served as a control group given only telmisartan. All PCKD patients had a serum creatinine value <2 mg/dL with a negative urine culture before enrollment. All patients were diagnosed by renal magnetic resonance imaging (MRI) to measure renal volumes. After a 6-month follow-up, patients were rescanned to remeasure the MRI volumes. Renal function was stable in 5/8 subjects in the sirolimus group, improved in 2 cases, and worsened in 1 with an increase of serum creatinine to >2 mg/dL resulting in his withdrawal after 5 months of follow-up. In contrast, the serum creatinine value was stable in 3 control group subjects, worsen in 3, and improved in 2. Four patients in the sirolimus group experienced infectious complications, namely, urinary tract infections (UTI) in 2 which were treated with antibiotics, and monilial pharyngitis in 2, who were treated and cured with a topical antifungal. In the control group, only 2 developed and were treated for UTIs. Hematologic tests were normal in all patients. There was an insignificant rise in kidney volume as measured by MRI in the sirolimus group (2845 vs 3221 mL after 6 months; P = NS) compared with a significant increase in the control group (2667 vs 3590 mL after 6 months; P < .05). We concluded that sirolimus, in addition to an ARB, might be beneficial for PCKD patients who present early in their illness.**
An evidence-based perspective to the medical treatment of male infertility: a short review.

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Abstract

Introduction: Evidence-based medicine (EBM) is the integration of best research evidence with clinical expertise and patient preferences and values. Aim: This narrative review aims to assist the physicians to make informed decisions based on the best available evidence in the area of male infertility and the patients' own preferences and values.

Methods: In this review we present the current state of knowledge and uncertainties about the medical management of male infertility. We describe the best available evidence from systematic reviews, randomized controlled studies and observational studies where appropriate.

Results: Data from the literature suggest that gonadotropin treatment of male infertility can lead to a significant increase in pregnancy rates, however larger studies are needed to confirm such findings. Studies including combinations of antiestrogens, antioxidants and androgens are promising but need confirmation with further research.

Conclusions: Most current combination therapies consist of orphan medications without industry support. Andrology research centers and other dedicated departments and units need to conduct randomized controlled trials of sufficient duration, sample number and robust design for groups most likely to benefit from antiestrogens, L-carnitine, antioxidants, and combination therapy. The ease of administration, low cost and mild side effects of antiestrogens justify their utility despite insufficient evidence of effect as monotherapies. Randomized controlled trials assessing other forms of medical therapy and combination therapy are available but are still in the preliminary stages.
Extracorporeal shock wave lithotripsy monotherapy for renal stones >25 mm in children.

Shouman AM, Ziada AM, Ghoneim IA, Morsi HA.

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Abstract

Objectives: To determine the safety and efficacy of extracorporeal shock wave lithotripsy (ESWL) as monotherapy for renal stones >25 mm in children.

Methods: Our prospective study included 24 children <14 years old with radiopaque renal stones >25 mm treated by ESWL as first-line treatment using the electromagnetic Dornier DoLi S device. Pretreatment kidney, ureter, and bladder plain films and intravenous urography and post-treatment ultrasonography and kidney, ureter, and bladder plain films were used to monitor the clearance of fragments. Stone clearance was assessed at 1 and 3 months. A stone-free state was defined as no radiologic evidence of stone. Asymptomatic noninfectious and nonobstructive fragments <3 mm were considered insignificant.

Results: The 24 children, aged 2-14 years (mean 7) underwent 53 ESWL sessions. Of the 24 children, 10 had stones located in the left kidney and 14 had stones located in the right kidney. The stone size was 25-35 mm (average 31). The average number of shock waves was 3489 per session. All children underwent lithotripsy with a gradual incremental energy increase from 14 to 20 kV. The overall stone-free rate was 83.3%. Four patients had clinically insignificant fragments and were followed up for the possibility of stone regrowth, microscopic hematuria, and urinary tract infection. Complications affected 25% of patients.

Conclusions: ESWL is highly effective for treatment of large renal stones in children as a first-line treatment with minimal morbidity. The placement of a stent is not a prerequisite for success of treatment.
A prospective randomized study comparing shock wave lithotripsy and semirigid ureteroscopy for the management of proximal ureteral calculi.

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Abstract

Objectives: To conduct a prospective randomized study comparing both techniques for the management of solitary radio-opaque upper ureteral stones < 2 cm in diameter. The ideal treatment for upper ureteral stones > 1 cm size remains to be determined with shock wave lithotripsy (SWL) and ureteroscopy (URS) being acceptable options.

Methods: A total of 200 patients were included in the study. They were randomized into 2 equal groups. Group A underwent in situ SWL as a primary therapy. Group B underwent URS, using semirigid URS with intracorporeal lithotripsy. Efficiency quotient (EQ), cost analysis, and predictors of failure were estimated for both techniques.

Results: For stones of size > or = 1 cm, the initial stone-free rate for URS and SWL was 88% and 60%, respectively. The estimated EQ was 0.79 and 0.43 for both techniques respectively. For stones < 1 cm, the initial stone-free rate for URS and SWL was 100% and 80%, respectively. The estimated EQ was 0.88 and 0.70 for both techniques, respectively. The mean cumulative costs were significantly more in SWL group (P <.05). Predictors of URS failure included; male gender, failure to pass guidewire beyond the stone, and extravasation. Predictors of SWL failure included large stone size > 1 cm, calcium oxalate monohydrate stone, and higher degrees of hydronephrosis.

Conclusions: URS with intracorporeal lithotripsy is an acceptable treatment modality for all proximal ureteral calculi, particularly stones > 1 cm. SWL should remain the first-line therapy for proximal ureteral calculi < or = 1 cm because of the less invasive nature and lower anesthesia (i.v. sedation).
Consensus siRNA for inhibition of HCV genotype-4 replication.

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Abstract

Background: HCV is circulating as a heterogeneous group of quasispecies. It has been addressed that siRNA can inhibit HCV replication in-vitro using HCV clone and/or replicon which have only one genotype. The current study was conducted to assess whether siRNA can inhibit different HCV genotypes with many quasispecies and to assess whether consensus siRNA have the same effect as regular siRNA.

Methods: We generated two chemically synthesized consensus siRNAs (Z3 and Z5) which cover most known HCV genotype sequences and quasispecies using Ambium system. Highly positive HCV patient's serum with nine quasispecies was transfected in-vitro to Huh-7 cell line which supports HCV genotype-4 replication. siRNA (Z3&Z5) were transfected according to Qiagen Porta-lipid technique and subsequently cultured for eight days. HCV replication was monitored by RT-PCR for detection of plus and minus strands. Real-time PCR was used for quantification of HCV, whereas detection of the viral core protein was performed by western blot.

Results: HCV RNA levels decreased 18-fold (P = 0.001) and 25-fold (P = 0.0005) in cells transfected with Z3 and Z5, respectively, on Day 2 post transfection and continued for Day 3 by Z3 and Day 7 by Z5. Reduction of core protein expression was reported at Day 2 post Z3 siRNA transfection and at Day 1 post Z5 siRNA, which was persistent for Day 4 for the former and for Day 6 for the latter.

Conclusion: Consensus siRNA could be used as a new molecular target therapy to effectively inhibit HCV replication in the presence of more than one HCV quasispecies.
A new strategy for online adaptive prostate radiotherapy based on cone-beam CT.


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Abstract

Purpose: Interfractional organ motion and patient positioning errors during prostate radiotherapy can have deleterious clinical consequences. It has become clinical practice to re-position the patient with image-guided translational position correction before each treatment to compensate for those errors. However, tilt errors can only be corrected with table corrections in six degrees of freedom or "full" adaptive treatment planning strategies. Organ shape deformations can only be corrected by "full" plan adaptation. This study evaluates the potential of instant treatment plan adaptation (fast isodose line adaptation with real-time dose manipulating tools) based on cone-beam CT (CBCT) to further improve treatment quality.

Methods and Materials: Using in-house software, CBCTs were modified to approximate a correct density calibration. To evaluate the dosimetric accuracy, dose distributions based on CBCTs were compared with dose distributions calculated on conventional planning CTs (PCT) for four datasets (one inhomogeneous phantom, three patient datasets). To determine the potential dosimetric benefit of a "full" plan adaptation over translational position correction, dose distributions were re-optimized using graphical "online" dose modification tools for three additional patients' CT-datasets with a substantially distended rectum while the original plans have been created with an empty rectum (single treatment fraction estimates).

Results: Absolute dose deviations of up to 51% in comparison to the PCT were observed when uncorrected CBCTs were used for replanning. After density calibration of the CBCTs, 97% of the dose deviations were $\leq 3\%$ (gamma index: 3%/3mm). Translational position correction restored the PTV dose (D(95)) to 73% of the corresponding dose of the reference plan. After plan adaptation, larger improvements of dose restoration to 95% were observed. Additionally, the rectal dose (D(30)) was further decreased by 42 percentage points (mean of three patient datasets).

Conclusions: An accurate dose calculation based on CBCT-datasets is possible when density distributions are corrected. The presented adaptive strategy has the potential to reduce dose delivery errors due to organ deformations to a minimum.
Prevention of OHSS

Aboulghar, M.

Ovarian hyperstimulation syndrome (OHSS) is a major complication of ovulation induction. As the treatment of the syndrome is currently empirical, prevention is the most important aspect of its management. Identification of patients vulnerable to developing OHSS by taking a history of previous OHSS and polycystic ovarian syndrome is the first step in prevention. The use of mild stimulation protocols with small, closer stims of gonadotrophin is also important. As gonadotrophin-releasing hormone (GnRH) antagonist protocol is associated with a lower risk of OHSS, antagonist could be the protocol of choice in high-risk patients. Withholding human chorionic gonadotrophin (HCG) and continuation of GnRH agonist will abort the syndrome but at the expense of loss of the cycle. Coastage, which involves stoppage of gonadotrophins until oestradiol drops to a low concentration before HCG injection, is an effective technique but it does not completely prevent OHSS. Intravenous albumin is useful in the prevention when given at time of oocyte retrieval. Cryopreservation of all embryos will reduce late-onset OHSS but not early-onset OHSS. In-vitro maturation of oocytes will avoid ovarian stimulation and totally prevent OHSS. Triggering ovulation with a lower dose of HCG is effective in reducing the incidence of OHSS. There are possible roles for metformin and dopamine agonist for prevention of OHSS.
Ultrasound cervical measurement and prediction of spontaneous preterm birth in ICSI pregnancies: a prospective controlled study

Aboulghar, M. M., M. A. Aboulghar

A prospective controlled study was performed in which transvaginal ultrasound measurement of cervical length was compared in 222 twin ICSI pregnancies, 122 singleton ICSI pregnancies and 51 spontaneous singleton pregnancies. Preterm birth was defined as <34 weeks. Full data were obtained for 193 twin pregnancies (group A), 102 singleton pregnancies (group B) and 51 spontaneous singleton pregnancies (group C).

Cervical length at midterm was not statistically different between the three groups: group A, 37.6 +/- 7.1 mm; group B, 37.2 +/- 7.2 mm; and group C, 39.2 +/- 5.4 mm. The incidence of preterm birth was statistically different between groups: 30.5% in group A; 17.6% in group B; and 3.9% in group C (P = 0.011). The ROC curve for optimum cut-off of cervical length in prediction of preterm birth for group A was 38.05 mm. sensitivity 67%, specificity 50%, positive predictive value (PPV) 37.7, and negative predictive value (NPV) 78.1. For group B the data were 33.05 mm, sensitivity 50%, specificity 70%, PPV 34.6, and NPV 88.1. Contrary to the situation for spontaneous pregnancies, midtrimester cervical length measurement in ICSI singleton and twin pregnancies is not a predictor for preterm birth.
Cochrane Database of Systematic Reviews (4) 2009.

Post-embryo transfer interventions for in vitro fertilization and intracytoplasmic sperm injection patients

Abou-Setta, A. M., A. D’Angelo

Background Techniques for embryo transfer (ET) are being developed, optimized, and standardized to provide the best outcomes. This includes methods to reduce the risk of embryo loss following ET. Objectives To systematically locate, analyse, and review the best available evidence regarding the effectiveness of post-ET techniques for women undergoing in vitro fertilization (IVF) and intracytoplasmic sperm injection (ICSI).

Search strategy We searched electronic databases; reference lists of primary studies, review articles, and relevant publications; and conference abstracts. No language restrictions were applied. Selection criteria Screening and selection of 2436 possible trial citations were performed independently by two review authors. Four prospective, truly randomised trials met the inclusion criteria. The trials compared two competing post ET interventions or an intervention versus no treatment in women undergoing IVF and ICSI.

Data collection and analysis Two review authors independently collected data and assessed risk of bias using a standardized data extraction form. Individual outcome data were extracted to support an intention-to-treat analysis. Main results The primary outcome, live birth rate, was not reported in any of the included trials. The ongoing pregnancy rate was only available for one trial that compared immediate ambulation with 30 minute bed rest, with no evidence of an effect with bed rest ( OR 1.00; 95% CI 0.54 to 1.85). Secondary outcomes were sporadically reported with the exception of clinical pregnancy rate, which was reported in all of the included trials. There was no significant difference between less bed rest and more rest ( OR 1.13; 95% CI 0.77 to 1.67). Nor was there any significant difference between the use of a fibrin sealant and control ( OR 0.98; 95% CI 0.54 to 1.78). Even so, there was a significantly higher probability of pregnancy following mechanical closure of the cervix compared with no intervention ( OR 1.92; 95% CI 1.40 to 2.63). The risk of bias of the included studies was variable. The reporting of a proper method of randomisation and allocation concealment was demonstrated in the majority of trials, while only one trial was reported to be blinded. Authors’ conclusions There is insufficient evidence to support a certain amount of time for women to remain recumbent following ET, or to support the use of fibrin sealants. Finally, there is limited evidence to support the use of mechanical closure of the cervical canal following ET. Further well-designed and powered studies are required to determine the true effect, if any, of these and other post ET techniques for women undergoing IVF and ICSI.
International Urology and Nephrology 2009; 1-5.

The use of seromuscular tapered ileal tube in ureteral replacement: an experimental model

Ibrahim, M. E., M. M. Ezzat

Purpose: To assess the capability of urothelium to proliferate, creep and line the inner surface of the interposed seromuscular tapered ileal tube. Materials and Methods: Under general anesthesia, 15 female dogs underwent resection of 5 cm of the mid ureter and replaced with tapered seromuscular ileal tube stented for 6 weeks. The animals were sacrificed, and cross section of the ileal ureters were examined histologically for the lining cells. Results: Multilayer of transitional epithelium was seen covering all the inner surface of the interposed seromuscular tube at the end of 6 weeks. Excessive inflammatory cell infiltration was a prominent finding in the submucosal layer. Conclusion: Transitional epithelium has the capability to proliferate, grow and cover the inner surface of the interposed seromuscular ileal tube. Urothelium lining avoid the metabolic complications of the intestinal mucosa. © 2009 Springer Science+Business Media, B.V.
Evaluation of a novel pegylated interferon alpha-2a (Reiferon Retard) in Egyptian patients with chronic hepatitis C- genotype 4

Esmat, G. and S. Fattah

Introduction: Egypt has the highest HCV prevalence in the world, mostly genotype 4. Aim: Assessment of the efficacy, safety and compliance of a novel 20-kDa linear PEG interferon alpha-2a (Reiferon Retard) derived from Hansenula polymorpha expression system combined with ribavirin for the treatment of chronic HCV Egyptian patients. Patients and methods: One hundred chronic HCV patients divided according to the degree of fibrosis on liver biopsy into group A, including F1 and F2 patients and group B including F3 and F4. Patients received a fixed weekly dose of 160 mug of the PEG interferon in combination with ribavirin in standard with adjusted dosage and were followed up by PCR after 3, 6, 12 and 18 months. End of treatment response (ETR), sustained virological response (SVR), possible side effects, discontinuation of the drug and concomitant use of cytokines were reported. Results: At 48 weeks the overall ETR rate was 64% with 73% and 40% for group A and B respectively, and SVR at 72 weeks revealed an overall response rate of 56% viral clearance with 69% and 22% for group A and B respectively. There were notably minimal haematological complications. Conclusion: The efficacy and high safety profile in absence of significant haematological reactions substantiates the hypothesis that the chemistry of different interferons and their pegylation pattern may reflect on the clinical outcome. copyright 2009 Editrice Gastroenterologica Italiana S.r.l.
Chemical pleurodesis in patients with hepatic hydrothorax; management, morbidity and mortality

Kaddah, S., N. Helmy

Objective: Chemical pleurodesis in an effective treatment for malignant effusion and pneumothorax. Although this mode of therapy is less widely accepted in the treatment of patients with hepatic hydrothorax, the need for palliative treatment in such patients encouraged us to analyze the outcome of chemical pleurodesis using bovoiodine, vibramycin and talc slurry in the treatment of hepatic hydrothorax. Material and Method: A prospective study including 23 patients with symptomatic right side hepatic hydrothorax not responding to medical treatment and repeated thoracocenthesis was carried out. From March 2007 through March 2008, 19 men and 4 women with a mean age of 54.3 +/- 8.1 years (range 42-70 years) underwent medical thosacoscopies to achieve pleurodesis by application of 3 sclerosing agents. Results: Of the 23 patients pleurodesis was repeated in 20 cases. Three cases were lost during the 3 months follow up period of the study. The procedure was effective in 15 of 20 patients (75%), 7/8 cases treated by bovoiodine (87.5%), 4/6 cases with vibramycin and talc slurry (66.7%) for each. There were 4 recurrences (20%) and a single case of mortality (5%) due to hepatic coma attributable to the course of the disease. We detected minimal morbidity during the follow up period of 3 months. Conclusion: The procedure appears to be indicated for these fragile patients especially when medical therapy fails. Since efficacy was 75%, chemical pleurodesis deserves to be considered as an alterative therapy in such patients.
Juvenile idiopathic arthritis, the Egyptian experience

Salah, S., A. Hamshary

To study the characteristics of Juvenile Rheumatoid Arthritis (JRA) in the Egyptian population, comparing it to other populations. We retrospectively studied the charts of 196 Egyptian children with Juvenile Rheumatoid Arthritis (JRA), who fulfilled the ILAR (International League Association for Rheumatology) classification of JIA and were followed up between 1990 and 2006 in the Children's Hospital, Cairo University. Their clinical features and laboratory data were collected and statistically analyzed. The male to female ratio was 1:1.09 and the mean age of disease onset was 6.257±3.41 years. The mode of onset was oligoarticular in 41.3%, polyarticular in 34.7% and systemic in 24%. Chronic uveitis was found in 5.6% of the children. Antinuclear antibody (ANA) status was determined in all patients and was positive in 21.1%. Amyloidosis was present in 1.76% of patients. The spectrum of clinical presentation of the disease in Egyptian children shows both some similarities and some differences from other populations, with oligo and polyarticular onset subtypes being commonest. The cause of these differences may be due, in part, to ethnic and environmental factors. Referral bias may be another cause.
A comparative study of folate and vitamin B12 serum levels in preeclamptic versus normotensive pregnant women in correlation with uterine and umbilical artery Doppler findings and pregnancy outcome

Mahmoud, A., E. Elkattan

Objective: To detect the serum levels of folate and B12 in both preclamptic and normotensive pregnant women and to determine whether there is any relation between these levels with the uterine and umbilical artery Doppler indices as well as the pregnancy outcome. Material and Methods: This case controlled study comprised 79 pregnant patients with preeclampsia and 113 healthy, normotensive pregnant women with singleton pregnancies at gestational ages ranging from 34-40 weeks. Patients were not obese (BMI<30) and did not suffer from chronic hypertension, chronic renal or liver disease nor diabetes mellitus. Serum folate and B12 were detected in all cases. They were also subjected to a Doppler study of both the uterine and umbilical arteries. Serum folate and B12 blood levels as well as the Doppler study indices (RI and PI) were compared in both groups. Results: The serum folate level was significantly lower in preeclamptic patients than normal pregnant women (p<0.001). It was significantly correlated to uterine artery Doppler indices (RI and PI) and negatively correlated to umbilical artery Doppler indices (RI and PI). Low serum folate was significantly correlated to poor maternal outcome. Low serum folate was also significantly correlated to poor perinatal outcome. Serum B12 level was not significantly different in preeclamptic patients from the control group (P value=0.14). Conclusion: Serum folate was significantly lower in preeclamptic pregnant women with a significant correlation to increased uterine and umbilical RI, PI and poor maternal and neonatal outcome.
Efficacy of 18F-FDG PET/CT in the evaluation of patients with recurrent cervical carcinoma

Mitra, E., T. El-Maghraby

Purpose: Only a limited number of studies have evaluated the efficacy of 18F-FDG PET/CT for recurrent cervical carcinoma, which this study seeks to expand upon.

Methods: This is a retrospective study of 30 women with cervical carcinoma who had a surveillance PET/CT after initial therapy. Sensitivity, specificity, accuracy, positive predictive value, and negative predictive value were calculated using a 2x2 contingency table with pathology results (76%) or clinical follow-up (24%) as the gold standard. The Wilson score method was used to perform 95% confidence interval estimations. Results: The sensitivity, specificity, accuracy, positive predictive value, and negative predictive value of PET/CT for the detection of local recurrence at the primary site were 93, 93, 93, 86, and 96%, respectively. The same values for the detection of distant metastases were 96, 95, 95, 96, and 95%, respectively. Seventy-one percent of the scans performed in symptomatic patients showed true-positive findings. In comparison, 44% of scans performed in asymptomatic patients showed true-positive findings. But, all patients subsequently had a change in their management based on the PET/CT findings such that the effect was notable. The maximum standardized uptake value ranged from 5 to 28 (average: $13\pm7$) in the primary site and 3 to 23 (average: $8\pm4$) in metastases which were significantly different ($p=0.04$). Conclusion: This study demonstrates favorable efficacy of 18F-FDG PET/CT for identification of residual/recurrent cervical cancer, as well as for localization of distant metastases. Copyright 2009 Springer-Verlag.
Luteal support in reproduction: when, what and how?
Aboulghar, M.

Purpose of review Luteal phase support (LPS) is an integral part of the IVF cycles treated by gonadotropin-releasing hormone analogues. There is a worldwide controversy concerning the type of hormones used for LPS, its dose, duration, when to start and when to stop. This review will cover original as well as recent data on this topic. Recent findings There is a consensus in the literature among IVF centers that LPS is necessary for IVF cycles. Human chorionic gonadotropin is less commonly used than progesterone for LPS because of ovarian hyperstimulation syndrome risk. Several studies suggested that intramuscular progesterone is superior to vaginal progesterone for LPS; however, the majority of centers use vaginal progesterone to avoid side effects of intramuscular injection. There is no difference in pregnancy rate whether LPS is started on day of human chorionic gonadotropin, oocyte retrieval or embryo transfer. There is a strong evidence that LPS should be stopped either on the day of pregnancy test or the first ultrasound (6-7 weeks pregnancy). There is no evidence that addition of estrogen will improve pregnancy rate. Summary Progesterone is the preferred option for LIPS. It should start within 2 days from triggering ovulation and should end on day of 0 human chorionic gonadotropin or the day of the first ultrasound (6-7 weeks pregnancy).
Prevalence of celiac disease among type 1 diabetic Egyptian patients and the association with autoimmune thyroid disease

Nowier, S. R., N. S. Eldeen

Background: Celiac disease (CD) is a common genetically transmitted immune mediated disease. Method. Seventy three type 1 DM patients attending the Diabetes, Metabolic and Endocrinology outpatient clinic were recruited in the study. Thorough history taking and medical examination were done. They were screened for the prevalence of celiac disease by ELISA for coeliac disease antibodies against tTG. Anti-thyroglobulin antibodies, antithyroidperoxidase antibodies were analysed to estimate the prevalence of autoimmune thyroid disease. Results: Four out of seventy three (5.48 %) type 1 diabetic children were seropositive for anti-tTG antibodies. They had symptoms of celiac disease such as chronic diarrhea (5.48 %), recurrent abdominal pain (2.7 %) and short stature (5.48 %). Six patients were diagnosed with autoimmune thyroid diseases as they were seropositive for antithyroglobulin antibodies and/or antithyroidperoxidase antibodies. None of them proved to be positive for anti-tTG antibodies. Conclusion: The prevalence of CD among Type 1 DM patients by using tissue transglutaminase antibodies ELISA was (5.48 %) which supports the current practice of screening for celiac disease. Patients with autoimmune thyroid disease were negative for anti-tTG antibodies. HbA1c levels were adversely affected by malabsorption related to celiac disease in seropositive patients (Tab. 5, Ref. 27). Full Text (Free, PDF) www.bmj.sk.
Consequences of exposure to electromagnetic waves of mobile phones on fetal blood flow and heart rate

Farid, A., O. Azmy

Introduction: Worldwide use of mobile phones had been increased by the end of 2008 to about 4.1 billions; mobile phone users involve pregnant women also. Several studies have looked at the long term effects of mobile phones with controversial results. Aim: This study aims to determine the consequences of electromagnetic waves produced by mobile phones on fetal blood flow and heart rate patterns. Patients and Methods: Three hundred and fifty eight normal pregnant women (28-32 weeks) were included in this study. These women had cardiotocography (CTG) monitoring and Doppler ultrasound evaluation while the mobile phones were switched off. Thereafter, the CTG tests were repeated; while the mobile phones were in the dialing mode for 30 minutes, then Doppler ultrasound evaluation was contacted just after 5 minutes of hanging up the mobile phone to avoid the disturbance of the electromagnetic waves produced by the mobile device on the Doppler machine. Results: Although fetal heart rate (FHR) baseline was generally higher by 5 beats per minute while using the mobile phones, however, this was not statistically significant (P=0.79). While, the FHR demonstrated an increased number of accelerations while the mothers were talking on the mobile phones as evidenced by more mean numbers of accelerations during exposure than before exposure (1.57+or-0.85 vs. 1.14+or-0.54, respectively), this difference was not statistically significant. Nevertheless, the FHR showed higher amplitude of rise while the electromagnetic field was generated than when the phone was switched off. This was statistically significant (19.6+or-6.3 vs. 9.3+or-3.8; P=0.01). Moreover, there were no detectable differences in the fetal perfusion detected by Doppler resistance index (RI) of the umbilical artery (RI of the umbilical artery 0.67+or-0.05 vs. 0.67+or-0.04; P=0.32) while the mobile phone was in or not in use respectively. Conclusions: The electromagnetic waves of mobile phones have no effect on fetal heart rate baseline. Moreover, there were no detectable differences in the fetal perfusion detected by Doppler resistance index.
Pulmonary vein antrum isolation, atrioventricular junction ablation, and antiarrhythmic drugs combined with direct current cardioversion: survival rates at 7 years follow-up

Patel, Dimpi; Mohanty, Prasant; Di Biase, Luigi; Venkatraman, Preeti; Shaheen, Mazen; Burkhardt, J. David; Canby, Robert; Natale, Andrea] St Davids Med Ctr, Texas Cardiac

To report survival rates in patients treated with pulmonary vein antrum isolation (PVAI), atrioventricular junctional ablation (AVJA), and antiarrhythmic and direct current cardioversion (A + DCCV) at 7 years follow-up. From February 2002-December 2004, 1,000 consecutive patients underwent PVAI or A + DCCV or AVJA. These patients were matched in a nested case-controlled methodology. Survival rates were compared at the end of 7 years. Three hundred and forty-five consecutive patients had undergone PVAI (34.5%), 157 (15.7%) consecutive patients AVJA, and 498(49.8%) A + DCCV. After matching the patients in a nested case-controlled methodology, 146 (32.3%) patients were in the PVAI group, 205 (59.4%) in the A + DCCV, and 101 (22.3%) in the AVJA. At 69 +/- 27 months, 63 (13.9%) patients had died in the matched population. Three (2.1%) patients died in the PVAI group, 34 (16.5%) in the A + DCCV group, and 26 (25.7%) in the AVJA group. In multivariable analysis, treatment strategy was a significant predictor of mortality. Compared to patients with PVAI (reference group), those with A + DCCV (HR 4.9, p = 0.011) and AVJA (HR 10.6, p = 0.001) procedures had higher mortality risk. Compared to the other two procedures, patients with PVAI had the best survival rates at the end of 7 years. However, the observational case-control design of this study incurs the potential for confounding due to non-randomized treatment selection, and creates a major limitation in making valid generalization of the findings.
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