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THE CHANGING TREND IN THE MANAGEMENT OF RENAL ANGIOMYOLIPOMA OVER THE LAST 15 YEARS IN SAUDI ARABIA

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Abstract

Purpose: We report on 36 cases of renal angiomyolipoma followed for an average of 4 years.

Materials and Methods: We retrospectively reviewed the charts of angiomyolipoma patients in the last 15 years. We compared patients with sporadic versus tuberous sclerosis complex (TSC) associated lesions and patients who underwent surgical versus conservative treatment. We identified the changes in the management pattern over years.

Results: The median age at presentation was 45 y (11.6-68). The presenting symptom was pain (58.3%), incidentally discovered (25%) or hematuria (13.9%). We had 75 % females and 16.7% TSC patients. The median size of the lesions was 4.5 cm (0.3-40). Conservative treatment was undertaken in 55.6%. We performed nephrectomy in 22.2%, partial nephrectomy in 16.7%, and embolization in 5.6% of patients. The indication for surgical or interventional treatment was hemorrhage in 19.4%, suspicion of malignancy in 16.7% and pain in 8.3%. Patients were followed up to a median of 37 months (1-145). A total of 88.9% remained asymptomatic. Overall, lesions grew an average of 1.9 cm (SD=4.6) in 46.2±36.1 months. None of the patients developed renal impairment. Patients with TSC presented at a younger age, had larger, bilateral lesions, showed a higher growth rate and were more symptomatic at follow-up. Patients managed surgically had larger tumors at presentation and higher growth rate. In the last 5 years, there was a significant change towards conservative treatment. Conclusions: renal angiomyolipoma has a slow growth rate and preservation of renal function. Less surgery is required in the recent years.

RECONSTRUCTION OF SADDLE NOSE USING BIOGLASS ALLOIMPLANT

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Abstract

Bioglass is an osteoconductive resorbable bioactive glass which has the most potent effect on bone cell function. The surface of the material is activated and covered with calcium phosphate layer similar to the mineral phase of bone without fibrous encapsulation. It provides a scaffold for new bone growth and holds dimensions until the host bone takes over. The aim of this study was to determine the efficacy of Bioglass as an implant in reconstruction of saddle nose. The study was conducted in Benha university hospital during the period from January 2001 to December 2003. During that period augmentation of nasal dorsum was performed for 20 patients presenting with saddle nose using bioglass particles. Follow up ranged from 6 months to 9 months. Every patient was evaluated by symmetrical nasal pyramid, recurrence of deformities and CT scan 2 weeks and 6 months postoperatively to compare the density of bioglass and adjacent bone by House Field Unit to confirm bone formation. In 8 patients the saddling was localized to the bony nasal dorsum while in 12 patients there was saddling of both bony and cartilaginous nasal dorsum. In the 18 patients who completed the prescheduled follow up, the nasal saddling was corrected and straight appearance of the nose was achieved in 16 cases while in 2 cases there were some disagreeable irregularities on the nasal dorsum which required rasping later on. The nasal saddling did not recur during the period of follow up, as there were no extrusion, infection and absorption to bioglass particles. The mean density of normal surrounding nasal bones was 1599.4 House Filed unit. The mean density of bioglass 2 weeks postoperatively was 1046.95 unit, while six months postoperatively the density of bioglass became 1528.9 unit. Bone formation occurred in all cases as the density of bioglass

became near to the bone density. The use of bioglass has the advantage of having little reaction in the host. Its replacement by bone retains most of the bulk and shape of the original implant. In addition its use in particle form mixed with blood gives favorable effects in restoring the nasal dorsum. In the present study, bioglass was shown to dramatically enhance the repair of a major dorsonasal bone defect. Despite several promising reports, long term viability of these implants has yet to be evaluated and the use of alloplast must be recommended only as an absolute last resort and not as a convenient substitute of autogenous grafts.

**EVALUATION OF LONG TERM RESULTS OF
DISTAL URETHRAL ADVANCEMENT AND
GLANULOPLASTY FOR THE REPAIR
OF DISTAL HYPOSPADIAS**

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Abstract

Distal hypospadias represents the most common male genital malformation. Many surgical procedures had been practiced for repair of distal hypospadias, and only few reports have follow up more than one year. The objective of this study was to evaluate the long term results of distal hypospadias repair using distal urethral advancement and glanuloplasty technique. This study comprised 87 patients admitted to the Surgical Department, Mansoura University Hospital with the diagnosis of distal hypospadias and underwent surgical repair using distal urethral advancement and glanuloplasty technique. Their mean age was 6.7 (+4.6) range 2-20 years, and the mean follow up was 48.3 (range 12-78) months. Good outcome was achieved in 79 (90.8%) patients, and complications occurred in only 8 (9.20%) patients including urethral fistula in 2 (2.30%) meatal stenosis in 3 (3.45%), meatal retraction in 1 (1.15%), and poor cosmetic results in 2 (2.30%) patients. We concluded that long term follow up confirms the validity of this procedure with good outcome and low complication rate.

Key words: Distal Hypospadias, urethral advancement, long term results. Abbreviation: Distal urethral advancement and glanuloplasty (DUAG).

EPIDEMIOLOGIC AND ETIOLOGIC PROFILE OF HIRSUTISM IN ADOLESCENT EGYPTIAN FEMALES

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Abstract

Background: Hirsutism is a clinical condition commonly encountered in the practice of primary care medicine. It is not only a source of psychological discomfort but also a probable sign of an underlying medical problem. The common causes of hirsutism are familial, idiopathic or polycystic ovaries. Dermatologists found that hirsutism has become a noticeable complain among Egyptian adolescent females. Objective: To assess the prevalence of hirsutism and study the most common causes in Egyptian adolescent females. Design: Prospective random sample of general population attending outpatient clinics and prospective evaluation of hirsute patients referred to our dermatologic clinics. Intervention(s): Assessment of body hair using the standerzied Farriman and Gallwey scoring system and an investigative protocol including detailed clinical assessment with endocrinologic workup including estimations of free testosterone, dehydroepiandrosterone and 17-alpha hydroxyprogestrone in blood, using the immuno-enzymatic assay (ELISA) and abdominopelvic ultrasound of the ovaries. Result(s): Of 600 adolescent females for whom adequate data were available, 60 cases (10 %) had hirsutism, among them 43 (70.8 %) had mild hirsutism (score of 6 - 9), 15 (25 %) had moderate (score of 10 - 14) and 2(4.2 %) had severe hirsutism (score more than 15). The etiology of hirsutism were idiopathic in 51.7 %, polycystic ovaries in 38.3 %, drugs in 5 %, combined ovarian and adrenal causes in 3.3 % and adrenal causes in 1.7 %. Conclusion(s): Hirsutism is as common a problem in the Egypt as elsewhere in the world. Idiopathic hirsutism and polycystic ovaries syndrome are the most frequently defined "causes" of hirsutism among

Egyptian adolescent females. Whereas congenital adrenal hyperplasia is relatively uncommon cause. We recommended that every case of hirsutism must be investigated thoroughly and the hormonal analysis must be estimated regardless of any obvious causes present as it may indicate a serious underlying medical problem such as tumours of ovaries or adrenals, PCO or Cushing disease.

**USEFULNESS OF CAROTID
INTIMA-MEDIA THICKNESS AND BRACHIAL
ARTERY FLOW MEDIATED DILATATION IN
DIABETIC PATIENTS WITH SUSPECTED
CORONARY ARTERY DISEASE**

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Abstract

Objective: Flow associated dilatation (FAD%) and intima media thickness are established markers of early atherosclerosis. This study aimed to compare the ability of the non-invasive measurements FAD% and intima media thickness to predict coronary artery disease in asymptomatic diabetic males.

Methods: B-mode ultrasonography was used to assess both intima-media thickness in the common carotid artery and endothelial function in the brachial artery in 64 non insulin dependent diabetic male patients asymptomatic for coronary artery disease. They were divided into two groups, Group A comprise patients with positive stress test, and group B patients with negative stress test. Brachial artery diameter was measured at rest, during reactive hyperemia, and after sublingual administration of nitroglycerin

Results: Patients with positive exercise stress test had reduced FAD% compared with those with negative exercise stress test (4.4 ± 0.67 v $5.8 \pm 1.15\%$, $p < 0.001$), whereas intima media thickness tended to be increased in patients with positive exercise stress test but not statistically significant (1.1 ± 0.16 v 0.96 ± 0.10)mm, $p > 0.05$). There was a negative correlation between FAD% and intima media thickness ($r = -0.498$, $p < 0.001$). Receiver operating characteristic analysis showed that $FAD\% < 4.6\%$ predicted coronary artery disease with a sensitivity of 0.70 and a specificity

of 0.87.

Conclusions: Brachial artery FMD may become a useful tool for screening diabetic male patients with suspected CAD while determination of increased intima media thickness is not useful in discriminating between presence or absence of coronary artery disease.

Key words: Endothelial function, Intima-media thickness, flow associated dilatation.

THE LACK OF ASSOCIATION BETWEEN SIGNS AND SYMPTOMS IN PATIENTS WITH DRY EYE DISEASE

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Abstract

Aim of Work: The purpose of this study is to find out the relation between clinical tests and dry eye symptoms in patients with dry eye disease.

Patients and Methods: Twenty - three patients with dry eye disease were included in this study. Patients represented varying types and severity of dry eye disease and were previously diagnosed by me and other doctors. The study examination included a symptom interview that assessed dryness, grittiness, soreness, redness, ocular fatigue and blurred vision. This interview was followed by a clinical examination conducted in the following order: meibomian gland assessment, height of the tear meniscus, tear breakup time test, fluorescein staining, Schirmer test, and rose bengal staining.

Results; Symptoms were generally not associated with clinical signs in patients with dry eye disease. No clinical test significantly predicted frequently reported symptoms after cessation of artificial tear treatment for two weeks.

Conclusions: These results suggest a poor relation between dry eye tests and symptoms, which represents a research debate in dry eye clinical research and practice.

TNF- α IN PATIENTS WITH LIVER CIRRHOSIS AND ASCITES : RELATIONSHIP TO CIRRHOTIC CARDIOMYOPATHY

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Abstract

Backgrounds: Cirrhotic cardiomyopathy characterized by baseline increased cardiac output, attenuated systolic contractile and diastolic relaxant responsiveness to inotropic and chronotropic stimuli. Elevated TNF- α has been demonstrated in cirrhotic patients. However, it is poorly known whether there is a relationship between this cytokine and the development of cirrhotic cardiomyopathy. **Objective:** to study cardiac abnormalities in patients with liver cirrhosis and ascites with and without renal impairment (RI), and to assess the role of TNF- α in the development of this cardiac dysfunction. **Subjects and Methods:** We studied 40 patients with liver cirrhosis and ascites [20 patients without RI aged (42.21 \pm 3.73 years) and 20 patients with RI (aged 42.63 \pm 4.1 years)] and 10 age-matched healthy control subjects. Full history and complete clinical examination were done with the following investigations: complete blood picture, fasting and postprandial blood sugar, S.creatinine, S. bilirubin, S.albumin, prothrombin time, S. transaminase (ALT & AST), plasma and ascitic fluid TNF- α , abdominal ultrasonography, resting ECG and echocardiography. **Results:** Plasma TNF- α was significantly higher in the studied two ascitic groups compared to the control group (28.1 \pm 5.85, 64.2 \pm 9.13 vs 1.9 \pm 1.31 pg/ml, respectively, $P < 0.001$), also plasma and ascitic TNF- α were significantly higher in ascitic group with RI compared to ascitic group without RI (64.2 \pm 9.13 vs 28.1 \pm 5.85 pg/ml; 152.3 \pm 17.14 vs 49.2 \pm 5.56 pg/ml, respectively, $P < 0.001$). There were significant increase in left atrial diameter (LAD) and right ventricular end diastolic diameter (RVDD) in the ascitic two groups compared to control group (37.7 \pm 5.1, 40.9 \pm 4.66 vs 30.1 \pm 4.61 mm;

30.01±4.32, 33±4.82 vs 19.2±5.52 mm respectively, $P<0.001$), also there were significant increase in LAD and RVDD in ascitic group with RI compared to ascitic group without RI (40.9±4.66 vs 37.7±5.1mm, 33±4.82 vs 30.01±4.32mm respectively, $P<0.05$). A significant decrease in E/A ratio was found in both ascitic groups compared to control group (0.98±0.12, 0.9±0.09 vs 1.11±0.06, $P<0.05$) and in ascitic group with RI compared to ascitic group without RI (0.9±0.09 vs 0.98±0.12, $P=0.025$). There was non significant change in systolic function in ascitic group without RI compared to control group ($P>0.05$), however, systolic dysfunction was detected in ascitic group with RI compared to both control group and ascitic group without RI ($P<0.05$). There were significant positive correlation between both plasma and ascitic TNF- α and parameters of both diastolic and systolic dysfunction. **Conclusion:** Cirrhotic patients with ascites have diastolic dysfunction and increase in TNF- α when systolic function is still normal. With the development of renal impairment systolic dysfunction occur with associated more increase in TNF- α which may suggest a mechanistic role of TNF- α in the development of cirrhotic cardiomyopathy.

RE-EVALUATION OF IMPACT OF THE EXTENT OF THYROID RESECTION ON HYPERTHYROIDISM-ASSOCIATED OPHTHALMOPATHY

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Abstract

This study was designed to reevaluate the impact of the extent of thyroid resection on the degree of hyperthyroidism-associated ophthalmopathy and included 18 patients with clinically and biochemically diagnosed Graves' disease. Patients underwent full ophthalmic examination for evaluation of the degree of exophthalmos using the American Thyroid Association (ATA) Scale and were randomly allocated in 2 groups: Group I (n=6) for total thyroidectomy, Group II (n=12) for subtotal thyroidectomy (intended total remnant size to be <4 mm³). Patients underwent pre- and postoperative ultrasonographic examination for determination of volume of thyroid gland and its remnants, respectively. Patients underwent MRI examination of the orbit preoperatively and 3-month postoperatively for evaluation of the surgical outcome. Early and late postoperative complications were recorded and patients were reevaluated 3-months after surgery using ATA Scale. Postoperative ATA scoring of patients revealed improvement in 5 patients (27.8%), stationary exophthalmos in 11 patients (61.1%) and worsening in 2 patients (11.1%) with a non-significant ($P>0.05$) difference between both groups. Preoperative MRI revealed enlargement of extraocular muscle belly and crowding of the optic nerve by the enlarged extraocular muscles. The tendinous insertion of the extraocular muscle at the globe is not thickened, a characteristic MRI finding of thyroid related orbitopathy. Postoperative MRI showed no noticeable difference in comparison to preoperative image. In group II, total remnant of < 4 mm³ in 10 and 2 patients had remnant size of 5 & 6 mm³. Two patients in group I developed postoperative complications in the form of temporary unilateral vocal cord

affection and temporary early postoperative hypoparathyroidism, respectively. It could be concluded that total thyroidecomy did not improve the thyroid ophthalmopathy, even some cases got worse and it must be abandoned as a line for treatment of such cases to safeguard against anticipated postoperative complications.

VALTRAC BIOFRAGMENTABLE ANASTOMOSIS RING FACILITATES FAST-TRACK RECOVERY AFTER COLON SURGERY

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Abstract

This study was designed to evaluate the applicability of fast-track rehabilitation after elective colonic resection and anastomosis using the Valtrac biofragmentable anastomotic device (V-BAR) in comparison to manual procedure for anastomosis. The study comprised 29 patients assigned to undergo elective colonic resection and anastomosis divided into two groups: 17 patients (Group A) underwent V-BAR anastomosis and 12 patients underwent manual anastomosis (Group B). After preoperative full general and abdominal examination, laboratory investigations, abdominal ultrasonography and colonoscopy and biopsy in cancer cases, patients were prepared for surgery. All surgeries were carried on under general endotracheal inhalational anesthesia supplemented by epidural non-opioid analgesia that maintained for 48 hours after surgery. Patients were allowed to ambulate and perform respiratory exercise on 2nd postoperative day. Patients included in group A underwent plain X-ray of abdomen to visualize the BAR; 1 day and 1 week after surgery. Follow-up included first flatus passed; time to successfully tolerate oral clear fluid, low-residue diet and regular diet, occurrence of intestinal obstruction by fecal impaction due to Valtrac fragment and/or awareness of passage of fragments, occurrence of wound infection, anastomotic leakage or stricture. Operative time and time required till completion of anastomosis was significantly shorter in group A compared to group B. Recovery of bowel habits occurred significantly faster in group A with shorter duration of nasogastric suction and duration of parenteral fluid administration. No patient required reoperation for any cause, one patients in each group developed wound infection, one patient in group B suffered ileus for 5 days and re-

quired reapplication of nasogastric suction tube and fluid replacement till intestinal movement was regained on the 7th postoperative day and 2 patients in group B developed leakage, both responded to conservative treatment. There was a significant reduction of the duration of postoperative hospital stay in group A with a significant difference between patients distribution according to duration of postoperative hospital stay. The BAR fragments were passed unnoticed and follow-up colonoscopy did not detect postoperative stricture in any patients. It could be concluded that the use of Valtrac-BAR for colonic anastomosis enables the application of Fast-track postoperative rehabilitation programs safely.

**EPIDEMIOLOGICAL PATTERN AND
TREATMENT OUTCOME OF TUBERCULOSIS
IN NORTH BATINAH REGION, OMAN
(1999 - 2003)**

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Abstract

Background: Tuberculosis (TB) is still considered a major public health problem world-wide. The recent re-emergence of the disease in many countries led to the announcement by WHO which called for the implementation of a new strategy for global mobilization to combat the disease.

Objectives of the present study were to study the epidemiological pattern and to evaluate the treatment outcomes of newly diagnosed cases of TB in North Batinah Region (NBR) in the Sultanate of Oman during the period 1999-2003.

Patients and Methods: A retrospective study that was carried out in North Batinah Region (NBR), Oman during 5 years period from January 1st 1999 to end of December 2003. All registered TB cases were the target population of the present study. Diagnosis and treatment of TB cases were performed according to guidelines of the National Manual of Tuberculosis Control Programme (TBCP) of MoH of Oman. Treatment outcomes were followed-up at Sohar Extended Health Center (SEHC)-Chest Clinic.

Results: The overall incidence rate of TB cases in NBR slightly decreased. There were no remarkable changes in the percentages of smear positive case detection during the study period. Male patients were slightly more than female patients. The percentage of diagnosed TB cases in age group 20 to less than 40 years (31.17 %) was higher than other age groups. Pulmonary TB cases decreased during the study period from 74.36 % in year 1999 to 63.41 % in year 2003. The great majority of extra-pulmonary cases were mainly TB lymphadenitis. There was gradual improvement of contact tracing during the study period. Case-finding

efficacy and case detection rate for new smear positive cases were high compared to global rates. Cure rates still around 70 % which were less than the global rate (85 %) and the national rate in the Sultanate (92 %).

Recommendations: DOTS Strategy should be the main line for controlling tuberculosis. Strict measures are recommended to improve TB treatment success rate to reach the WHO target. Good adherence to the therapy is highly recommended to decrease the treatment failure rate. Proper health education is highly important to improve patients' compliance to treatment and for strict contact tracing.

THE EFFECT OF ENDOSCOPIC SINUS SURGERY ON EUSTACHIAN TUBE FUNCTION

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Abstract

Twenty patients (40 ears) who have undergone endoscopic sinus surgery, were subjected to tympanometric measures, preoperatively, and 1,3,and 5 days after surgery. Tympanometric records displayed significantly increased negativity on the early post-operative days ($p < 0.01$) with a peak pressure of -70.3 daPa preoperatively, -135.8 daPa one day after surgery, and -112.7 daPa 3 days after surgery , while 5 days after surgery they returned to normal with a peak pressure of - 48.1 daPa . Pressure changes are attributed to nasal pack pressure as well as postoperative surgical edema.

**CURRENT EARLY AND MID-TERM OUTCOME
AFTER THE ARTERIAL SWITCH OPERATION
FOR TRANSPOSITION OF
GREAT ARTERIES**

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Abstract

Objective: To evaluate the outcome of the arterial switch operation (ASO) used to treat various anatomico-pathologic entities of transposition of great arteries.

Patients and Methods: Fifty patients who underwent the arterial switch operation (ASO), done by one surgeon (Rene Pretre), at the university hospital Zurich -Switzerland during the period between July 1998 and November 2003 , were retrospectively studied. Of the fifty patients included, there were 31 boys and 19 girls with a median age of 7 days and weight of 3.3 kg. The lesions treated included 41 d-transposition of great arteries (d-TGA), 8 double outlet right ventricle with subpulmonary ventricular septal defect (DORV/SP-VSD) and one congenitally corrected transposition of great arteries (CC-TGA) with heart failure. Forty five patients underwent primary ASO. Four patients with concomitant hypoplastic aortic arch and isthmus stenosis underwent a two-stage repair. The patient with CC-TGA underwent PA banding followed by a double switch operation.

Results: There were 2 (4%) early deaths, one intraoperative due to myocardial ischemia and another early postoperative due to right side heart failure . Two (4%) patients required reoperation for left coronary ostial stenosis (venous patch ostial enlargement) and another patient (2%) un-

derwent pulmonary artery angioplasty for pulmonary artery stenosis. After a median follow up period of 20.5 (2-64) months, the last echocardiography revealed mild aortic insufficiency, pulmonary artery stenosis and mild mitral insufficiency in 5 (10.4%), 2 (4.2%) and one (2%) patients respectively.

Conclusion: Arterial switch operation has excellent immediate results and remains the operation of choice for treatment of transposed great arteries. Mid-term follow-up is characterised by few problems on the coronary arteries and the aortic valve. The freedom from marked cardiac events and the harmonious growth of cardiac structures are encouraging regarding long-term prognosis.

EFFECT OF PARACENTESIS ON PORTAL VENOUS HEMODYNAMICS, CARDIOPULMONARY FUNCTIONS AND ARTERIAL BLOOD VOLUME IN CIRRHOTIC PATIENTS

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Abstract

Abdominal paracentesis is an old medical procedure for treatment of tense ascites. Paracentesis induced circulatory dysfunction (PICD) is a complication that can be prevented with the administration of intravenous albumin. The aim of this work is to assess the effects of a single large volume paracentesis (LVP) on portal venous hemodynamics and cardiopulmonary functions in cirrhotic patients with tense ascites. Also, to compare between dextran-70 and albumin as a replacement therapy. Thirty adult patients from either sex with cirrhosis and intractable ascites were randomly allocated into one of three groups subjected to LVP, group I: include 10 patients received human albumin infusion 20%, group II: include 10 patients received dextran -70 infusions and group III: include 10 patients with no replacement therapy. Patients had undergone blood urea, blood urea nitrogen (BUN), liver function tests, serum electrolytes (Na+ and K+), ascetic fluid analysis, arterial blood gases (ABG), duplex ultrasonographic examination of the portal (PV) and splenic veins (SV) with calculation of their velocity and congestive index (CI), standard pulmonary functions tests and echocardiographic estimation of right and left atrial areas and cardiac output (COP). Effective arterial blood volume was assessed by measuring plasma renin activity (PRA) and aldosterone concentrations (PAC). All measurements were done at baseline, 48 hours (hrs) and on the six day after LVP. All patients reported improvement of their

clinical manifestation. Urine output increased in all groups with significant difference between group I and groups II & III at 48 hrs and between group I and III at 6th day. Heart rate slightly increased 48 hrs and then decreased on the 6th day with no significant difference between studied groups while the mean arterial blood pressure slightly decreased in all groups with only significant difference between pre-tape and 48 hrs and 6th day results in group III. The mean right and left AA and COP significantly increased in the all groups Right AA was lower in group III at 48 hrs compared to other two groups. There was significant difference between pre-tape and 48 hrs results of left AA in group III. At 48 hrs left AA was significantly lower in group III compared to other two groups and in group II compared to group I. On the 6th day left AA was significantly lower in group III compared to other two groups. The mean FEV1 and FVC increased in all groups, while the mean FEV1/FVC showed no significant change. The mean PaO₂ increased significantly in all groups. Oxygen saturation increased significantly in all groups at 48 hrs then decreased on the 6th day but still above pre-tape results with significant difference between 48 hrs and 6th day values. PaCO₂ decreased significantly in all groups. There was a significant increase in mean PV and SV velocity 48 hrs after LVP with non significant reduction of their congestion index. BUN significantly increased in group III compared to groups I and II. Serum sodium markedly decreased in group III compared to groups I and II with significant difference between pre-tape, 48 hrs and 6th day results of group III. PRA and PAC non significantly increased in all groups before LVP, in group I, PRA showed no significant changes after LVP, while PAC initially increased after LVP then significantly decreased on the 6th day. In group II, PRA and PAC significantly increased after LVP with significant difference between pre-tape, 48 hrs and 6th day results of PAC. In group III there was significant increase in PRA and PAC. As regard PRA, there was significant difference between groups I & II and group III, also between group III and group II at 48 hrs, while on the 6th day there was significant difference between groups I & II and group III. As regard PAC, there was significant difference between group I and groups II and III on the 6th day. There was non significant increased incidence of hyponatre-

mia, hyperkalemia and incidence of PICD in group III. So, we can conclude that LVP with concomitant infusion with appropriate plasma volume expander is quite safe, palliative, and cost effective in patients with advanced cirrhosis and has a fewer complications in comparison to conventional diuretic therapy. LVP has an immediate beneficial effect on arterial blood oxygenation, cardiac functions, provides rapid improvement of lung volumes and also improve portal venous dynamics. The low cost, the good tolerance and the safety of the plasma expander, dextran justify its therapeutic usage as useful alternative to human albumin in the management of intractable ascites especially small volume (<5 liter). Also therapeutic paracentesis without replacement is effective as with albumin or dextran infusion on the outcome of cardiopulmonary functions and portal venous dynamics.

EFFECT OF CALCIUM CHANNEL BLOCKERS ON STRESS-INDUCED GASTROINTESTINAL PATHOPHYSIOLOGICAL CHANGES IN RATS

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Abstract

Forty adult male albino rats (200 ± 20 g each) were used in this study. Animals were equally divided into 4 groups (n = 10); normal control (CON) group was intraesophageally (i.o.) administered with distilled water (0.5 mL/d) for 1 week (wk); L-type calcium-channel blocker (CCB) group that i.o. administered with otilonium (octylonium) bromide (OB, 2 mg/kg rat/d dissolved in 0.5 mL distilled water) for 1 wk; a cold-restraint stress (CRS) group that i.o. administered with distilled water as CON group but also restrained for 3 hs/d at 4- 6 °C in individual wire-mesh cylinders for 1 wk; and combined group (CCB+CRS group) that i.o. administered with OB as in CCB group and also restrained as in CRS group. The number of fecal pellets expelled by each animal was counted and examined for its consistency every 30 min for 3 hs, starting at 5 min after the induction of CRS or transporting to individual cages. At the end of the 1-wk period, each rat was sacrificed by stunning and cervical dislocation, the abdominal cavity was opened along the midline, the stomach, upper segment of small intestine (UIS), lower segment of small intestine (LIS) and a segment from distal colon (DCS) were rapidly excised and soaked in warm (37°C), carbog-enated Tyrode's solution. Stomach was further used for measuring the areas of erosion (ulcers) if present, while UIS, LIS and DCS were further used for motility study of both spontaneous and evoked contractility in response to ACh and KCl.

CRS produced significant increase the spontaneous motility of the UIS when compared to the CON values. Contractile response to ACh and KCl

of both UIS and DCS were also significantly increased by CRS. Also, fecal pellet output was increased significantly by CRS when compared with the corresponding values in CON rats. Moreover, CRS induced gastric ulceration which appeared to be scattered along the mucosa of the stomach. On the other hand, the motility of LIS insignificantly changed by CRS. Administration to OB (L-type CCB) produced significant decrease in spontaneous contractions and contractile responses to ACh and KCl of UIS, LIS and DCS, together with decreased fecal pellets output when compared with the corresponding values in CON rats. Administration to OB to CRS rats reduced significantly both spontaneous and evoked motility in response to ACh and KCl of UIS and DCS, while the LIS didn't affect significantly when compared with the corresponding values of non-treated CRS group. Also, OB administration reduced significantly the increased fecal pellet output caused by CRS. On the other hand, OB administration to CRS rats produced significant reduction or almost complete protection of the gastric mucosa from the development of ulceration. It can be concluded that OB (L-CCB) could help in prevention and treatment of GIT motility disorders caused by different stressors as CRS. Also, OB could prevent the development of stress gastric ulceration in different forms of stressors.

**FUNGAL SINUSITIS WITH INTRACRANIAL
EXTENSION IN IMMUN-COMPETENT PATIENTS:
SURGICAL PLANNING ACCORDING
TO RELATION TO ELOQUENT
NEUROVASCULAR STRUCTURES**

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Abstract

Fungal sinusitis is a common disease in healthy young adults in our locality. It may destroy the skull base and invade the intracranial and intra-orbital compartments causing neurological and ocular manifestations. Combined neurosurgical and ENT approaches are mandatory for safe eradication of such skull base fungal infection. The objective of our study was to evaluate the results of combined neurosurgical and ENT surgical management for patients with fungal sinusitis with intracranial extension. We managed 10 cases with fungal sinusitis with intracranial extension. This included 7 females and 3 males. Four patients presented with unilateral proptosis, 2 with deterioration of level of consciousness due to meningitis, 2 with chronic headache, one with epilepsy and one patient presented with trigeminal pain. All cases had long history of chronic headache and nasal obstruction. CT was done in all cases, MR in 8 patients, CT angiography and conventional cerebral angiography in one patient. Surgical intervention was decided according to the relation of the fungal granuloma to eloquent intracranial structures. Endonasal approach alone was used when the granuloma was not related to the optic nerve, internal carotid artery "ICA" or cavernous sinus (n=3). Combined subfrontal and en-

donasal approach was used when the granuloma was closely related to one or more of these structures (n=5). Transcranial approach alone was done for 2 patients with isolated sphenoid fungal sinusitis that was associated with a mycotic ICA aneurysm in one patient and with a temporal lobe abscess in the other. In addition, antifungal treatment was used for 8-12 weeks. Patients were followed up clinically and radiologically for 6-36 month period. The results of our study showed that one patient died two month post-operatively from fungal meningitis. No morbidity related to the operative procedures was recorded in the study group. Proptosis was completely corrected in the four cases. Follow-up CT showed eradication of the fungal granuloma in all patients. Histopathologically, fungal infection included mucormycosis and aspergillosis. From this study we concluded that team ENT and neurosurgical work and early diagnosis are mandatory in the management of fungal sinusitis with intracranial extension in immune-competent patients. Surgical planning according to the relation of fungal granuloma to eloquent neurovascular structures is the corner stone for safe removal of granuloma.

Key words: Invasive fungal sinusitis -intracranial fungal granuloma - mycotic fungal cerebral aneurysm -fungal brain abscess.

CT GUIDED TRANSTHORACIC CATHETER DRAINAGE OF INTRAPULMONARY ABSCESS

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Abstract

Objective: To determine the efficacy of CT- guided transthoracic catheter drainage of intrapulmonary abscess considering success rate versus complications. Materials and methods: Nineteen patients were selected for CT guided percutaneous drainage using Seldinger technique. All patients were followed up clinically and radiologically by chest X-ray and CT scan. Results: Nineteen patients with lung abscess were selected in this study for percutaneous CT guided drainage. In nine patients (47.36%), no complications occurred and lung abscess was completely resolved with no residual cavity. Five patients (26.31%) developed pneumothorax, which is the most common complication occurred during this study. These patients were kept under observation and followed-up by chest X-rays. Three of them (15.78%) had mild pneumothorax, which resolved and needed no further management, while two patients (10.52%) developed moderate pneumolhorax and chest tube was inserted. Two out of nineteen patients (10.52%) had residual cavity left, but no oilier complications occurred, surgery was done for both patients. Two patient's (10.52%) developed mild hemoptysis and it was resolved within two hours, hence, no further management was required. One patient (5.26%) developed bronchopleural fistula and was operated. No mortality occurred during or after procedure. Conclusion: From this study it is inferred that CT-guided percutaneous transthoracic catheter drainage is safe and effective therapeutic modality for patients with lung abscess in whom medical therapy has failed and those who are unsuitable for surgery.

STAPES SURGERY: COMPARISON BETWEEN DIFFERENT PROSTHESES

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Abstract

Four hundred and fifty ears with otosclerosis have been operated upon using 3 different types of prostheses (Teflon piston in 217 ears, Teflon platinum in 133 ears and House prostheses in 100 ears). Greater hearing gains were obtained with the use of Teflon piston and Teflon platinum than House prostheses with statistically significant advantage at 2000-4000 Hz.. The mean postoperative air-bone gap was not statistically significant with the use of the three prostheses but at 2000 and 4000 Hz., the ABG was significantly larger with the use of House prostheses.

According to our results we conclude that Teflon piston and Teflon platinum provide better results than House prostheses and are considered the prostheses of choice for otosclerosis surgery.

Keywords: Stapedotomy, different prostheses

**ROLE OF PROCALCITONIN IN ASSESSMENT OF
BACTERIAL INFECTION AND ANTIBIOTIC
GUIDANCE IN PATIENTS WITH ACUTE
EXACERBATIONS OF CHRONIC
OBSTRUCTIVE PULMONARY
DISEASE ON MECHANICAL
VENTILATION**

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Abstract

This study was designed to investigate the diagnostic and prognostic values of serum procalcitonin concentrations "PCT" in comparison with other bacterial infection markers e.g. C-reactive protein concentrations "CRP" and microbiological cultures of protected specimen brush "psb" in patients with respiratory failure due to acute exacerbations of chronic obstructive pulmonary disease "COPD". We deemed that PCT concentrations can be used as a guide to reduce antibiotic overuse in these patients.

Fifty nine patients with acute respiratory failure due to exacerbations of COPD on mechanical ventilation were divided into two groups. PCT group "30 patients" were given antibiotic only if PCT concentrations were above 0.5ug/L and standard group "29 patients" were given antibiotic according to the physician opinion regardless of PCT concentrations levels. PCT guided antibiotic use resulted in reduction of antibiotic use by 46% without worsening the outcome in comparison with the standard group. Also, PCT was a good tool in diagnosis of bacterial infection as reflected by a higher PCT concentrations in patients with positive bacterial cultures of psb of the lower respiratory tract. 29 of 59 patients (49%) had positive bacterial growth, of them 28 patients were had high PCT concentrations "more than 0.5 ug/L" and only one patient had PCT concentration less than 0.5 ug/L. Patients with high PCT concentrations were also had signif-

icant leucocytosis in comparison with patients with low PCT concentrations "white blood cell count [13.2 ± 9.4 vs 8.2 ± 6.7] $\times 10^9/L$ respectively".

CRP was also higher in patients with high PCT concentrations in comparison with patients who had low PCT concentrations [99.4 ± 96.5 vs 94.7 ± 103.2 mg/L respectively], but the difference was not statistically significant.

Also, PCT concentrations declined earlier than CRP after proper treatment of bacterial infection. PCT levels reached physiological concentrations within 10 - 15 days while CRP was still above normal range, which means that PCT was of better diagnostic and prognostic values in patients with acute exacerbations of COPD on mechanical ventilation.

WHY SCHISTOSOMIASIS MANSONI IS STILL HIGHLY PREVALENT IN RURAL EZBAS IN KAFR EL SHEIKH, EGYPT?

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Abstract

To determine the possible risk factors for the high prevalence of Schistosomiasis in Ezbas (Satellites and hamlets) than a mother village (Ebschan), Kafr El-Sheikh Governorate. The first stage of the study was a cross sectional descriptive study. The target population were all the inhabitants above 2years (4780) of ten Ezbas and a systematic random sample from the mother village (5000). Both were subjected to Stool analysis by Kato-Katz technique.

The estimated total prevalence rate of schistosomiasis of the examined population from Ezbas was 14.7% while it was 4.3% in the mother village with a statistical significant difference between Ezbas and the mother village as regards the intensity of infection. There was a significant relationship between prevalence of schistosomiasis and GMEC by population density. The prevalence was higher among males than females and that the peak age specific prevalence rate among the inhabitants of Ezbas was (36.5%) for males and (30.4%) for females in the age group 15-<20years with an upward shift in the age scale and lower prevalence in the mother village.

The second stage was a case control study where schistosomal cases from all the Ezbas (704) and age and sex matched controls (705) from the mother village were subjected to a questionnaire compiling socio-demographic data, housing environment, Knowledge, Attitudes and Practices (KAP) about Schistosomiasis and water contact behaviour. History taking and thorough clinical examination were done and abdominal ultrasonography was performed for a random sample. Malacological studies

of the snail *Biomphalaria alexandrina* were carried out in all water channels. The risk factors for the high prevalence of schistosomiasis in Ezbas than the mother village were illiteracy (OR=63.1), true agricultural work (79.7), low social class score (OR=2.5), low housing condition score (OR=3.7), risky houses as regards the nearness to contaminated canals (OR=11.3) when the distance was less than 5 meters (OR=5.3) when the distance was 5-10m and sewage disposal into canals (OR=48). Among the inhabitants of Ezbas, the most risky KAP were; lack of correct knowledge about the effective method of prevention (OR=32.1), non-avoiding direct or indirect contamination of water channels (OR=46.8), non avoiding exposure and practicing contact to contaminated water channels even after treatment (OR=183.3) and lack of periodic screening after treatment (OR=1.38). The most risky occupational behaviour for males was irrigating fields (OR=110.3), cleaning canals (OR=77.7), washing animals (OR=23.4) and fishing (OR=22.5). The most risky occupational behaviour for males and females were rice and vegetable implantation (OR=113) and removal of harmful grass (OR=11.1). Grain washing was a risky behaviour for females (OR=38.2). The most risky socio-cultural behaviour were playing and swimming for children <15 years (OR=36), washing utensils for females (OR=40.6) and for males; ablution (OR=16.8) and bathing (OR=10.6). The risk increases with daily exposure (OR=6) and with a duration >2 hours in each exposure (OR=25.8) and infected *B. alexandrina* snails in water channels (OR=39.4). Most of them (85.5%) had received a previous treatment by praziquantel (PZQ); (26.8%) of them significantly received 3 doses of PZQ in the last year. Most of the cases (86.2%) were asymptomatic. Hepatomegaly, Splenomegaly and periportal fibrosis were more significantly prevalent among the inhabitants of Ezbas compared to the control as diagnosed by abdominal ultrasound (31.1%, 23.2% and 17.9% respectively). A modification of the National Schistosomiasis Control Project is recommended for more concern towards the numerous Ezbas which still have a high prevalence and intensity of schistosomiasis.

DOES OOCYTE GRANULARITY AFFECT ICSI PROGNOSIS?

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Abstract

This study was designed to evaluate the relationship between oocyte granularity and fertilization rate, further embryonic development and the outcome of ICSI. The study included 986 oocytes retrieved from 92 patients undergoing ICSI treatment that was assessed for oocyte cytoplasm morphology as either normal oocytes with clear cytoplasm and homogeneous fine granularity, granular oocytes that showed dark cytoplasm with granularity either homogeneous affecting the whole cytoplasm (Generalized) or concentrated as a dark mass in the central portion of the oocyte with a clear peripheral ring (Localized) or having cytoplasmic inclusions; then, the embryo quality was graded after 16-18, 48 and 60 hours; into grade I (embryos without fragmentation), grade II (embryos with <20% of the volume of the embryo fragmented) and grade III (embryos with anucleate fragments present in 20–50% of the volume of the embryo). There were 348 (35.3%) oocytes with normal cytoplasm (Group A), 308 (31.2%) oocyte had generalized granularity (Group B), 214 (21.7%) with localized dense central granularity, (Group C) and 116 (11.8%) with cytoplasmic inclusions (Group D). Fertilization rate, determined after 16-18 hours, was 69% (n=240) in group A, 64% (n=197) in group B, 60% (n=128) in group C and 65 (56%) in group D. Cleavage rate determined at 48 hours after ICSI was 60%, 52%, 43% and 32% in the four groups, respectively. Cytoplasmic fragmentation, evaluated 60 hours after ICSI, was reported in 0-10% of group A, 10-20% of group B, 15-25% in group C and >25% in group D. Good quality embryo was detected in 40% in group A oocytes, 25% in group B, 10% in group C and <10% in group D oocytes. There was a sig-

nificant difference in cleavage rate of fertilized oocytes categorized according to cytoplasmic granularity, ($F=4.34$, $p=0.0375$) with a significant increase of percentage of cytoplasmic fragmentation in oocytes with dense granularity, compared to oocytes with fine granularity, ($F=100.96$, $p=0.0000$) and a significant difference in percentage of good quality embryos between fertilized oocytes categorized according to cytoplasmic granularity, ($F=7.469$, $p=0.0275$). It could be concluded that although oocyte granularity does not significantly affect fertilizability in ICSI procedure; it affects embryo cleavage rate and embryo fragmentation significantly and hence the predictability of the outcome of ICSI procedure reflected as the percentage of good quality embryo.

ROLE OF URODYNAMIC FINDINGS IN REVISION OF MANY CONCEPTS ABOUT CHRONIC PROSTATITIS SYNDROME

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Abstract

Objective: To evaluate urodynamically, patients with chronic prostatitis syndrome to define a specific urodynamic pattern in each prostatitis group that might add information about the pathogenesis of the syndrome and treating such patients more efficiently.

Patients and Methods: Fifty patients aged from 24-50 years with symptoms suggestive of chronic prostatitis, were evaluated by standard four glass test using direct microscopy and culture for all specimens. Patients were classified according to National Institutes of Health Classifications System into non-inflammatory chronic pelvic pain syndrome [NICPPS (Group 1)], chronic bacterial prostatitis [CBP (Group 2)], inflammatory chronic pelvic pain syndrome IICPPS (Group 3). Patients with documented urethritis, urinary tract infection, lower urinary tract neuropathy or history of lower urinary tract surgery are excluded from the study. Furthermore all patients were evaluated by transrectal ultrasound and through urodynamic study including flowmetry, filling cystometry, pressure flow study (PFS) and electromyography of distal urethral sphincter (EMG). Out of 50 patients pressure flow study (PFS) and EMG are conducted in only 27 patients; while the remainder cannot complete these urodynamic studies. Results were statistically analyzed using F tests where $P < 0.05$ was significant.

Results: The common urodynamic finding represent decreased mean Q_{max} in the three groups of chronic prostatitis syndrome (166 ± 3 ml/sec). No significant difference between groups regarding the

Q_{max} (P value >0.05). Out of the 50 who underwent filling cystometry, 30 patients (60%) had a first sensation of filling and 33 patients (66%) had a desire to void at low volumes (<150 and <300 ml respectively). However, no significant difference between the 3 groups regarding first sensation and second sensation (P>0.05). Of 27 patients who underwent (P^fS) and EMG, 16 patients had an obstructed pattern of micturation. However there was no significant difference between NICPPS and CBP group regarding (PFS) (P>0.05). EMG study of distal urethral sphincter (27 patients) reveal that 9 patients from 16 patients with NICPPS and 2 patients from 11 with CBP show EMG activity during voiding, and there was a statistically significant difference between both groups (P <0.05, Chi square 3.9).

Conclusion: Complaints, transrectal ultrasound and urodynamic findings were generally similar in the 3 groups of prostatitis syndrome. Therefore, the differentiation of the syndrome into 3 groups based on results of direct microscopic examination and cultures of the 4-glass test seems to be not logical. In addition urodynamic evaluation explores sensory and motor dysfunctions which may not only help in pathophysiological explanation of this syndrome but also in planning treatment.

MIDDLE EAR FUNCTIONAL CHANGES ASSOCIATED WITH BILATERAL ANTERIOR NASAL PACKING

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Abstract

Objective: The purpose of this study was to investigate the middle ear functional changes that associate with bilateral anterior nasal packing. Study Design: Prospective study group consisted of thirty-eight consenting patients with bilateral anterior nasal packs, twenty males and eighteen females. Their age ranged from 18 to 50 years. The tympanometric results of 76 ears that underwent bilateral anterior nasal packing after endoscopic nasal operations for chronic sinusitis were measured. The measurement was done before, during, and after nasal packing. Results: Type A tympanogram was observed in 31 ears (40%) during bilateral anterior nasal packing and 59 ears (77%) after removal of the pack. While 34 ears (44 %) had type C tympanogram during bilateral anterior nasal packing and only 12 ears (15 %) had type C tympanogram after removal of the pack. Discussion: In this study, there was significant statistical difference between both middle ear functions before and after removal of the bilateral anterior nasal packing. But, there was no significant statistical difference between the right and left ears affection during the packing or after its removal by one week. Conclusions: This study revealed that there was a high incidence of Eustachian tube dysfunctions in patients with bilateral anterior nasal packs. But, with removal of the pack the middle ear pressure improves towards the pre-nasal pack condition with restoration of the middle ear physiological function after its removal.

Key Words: Nasal packs, packing of the nose, bilateral anterior nasal packs, Eustachian tube dysfunctions, middle ear functional changes, tympanometric results.

EPICARDIAL VISCERAL FAT IN OBESITY

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Abstract

Epicardial fat which is the fat surrounding the heart has been recently studied as a method of visceral adipose tissue prediction. The role of visceral fat has been previously linked to the insulin resistance and metabolic syndrome and its associated increased cardiovascular risk. So, the aim of this study was to determine the epicardial fat thickness in obese subjects and to correlate the findings to anthropometric and metabolic parameters of the metabolic syndrome and insulin sensitivity .

The study included 38 obese (BMI \geq 30kg/m²) in addition to 22 non obese women of matched age. Clinical evaluation of the study groups was done with stress on anthropometric measurements (BMI, waist circumference, hip circumference ,waist hip ratio) and blood pressure measurements. Laboratory evaluation included fasting glucose, insulin and lipids. Assessment of insulin sensitivity was done using the homeostasis model assessment (HOMA -IR)calculated using the fasting glucose and insulin levels. Imaging studies included echocardiography for measurement of epicardial fat as well as abdominal ultrasonographic measurement of subcutaneous and visceral fat and detection of fatty liver. Using the ATP III criteria for the metabolic syndrome, obese subjects were divided into group A (16 subjects) having metabolic syndrome and group B(22 subjects) not having metabolic syndrome. The study showed significant increase in epicardial visceral fat and intra abdominal visceral fat thickness in obese subjects in comparison to control group and in group A versus group B subjects, while subcutaneous fat measurements showed non significant difference between group A and B .Epicardial fat showed significant correlation with waist circumference, fasting insulin ,HOMA-IR and intra abdominal visceral fat . On the other hand, non significant corre-

lation with BMI , age, blood pressure, fasting glucose and lipids as well as subcutaneous fat, was found. It was concluded that epicardial fat is a simple measure that can be added to routine echo cardiography reflecting the visceral adipose tissue and possible predictor of metabolic syndrome and cardiovascular risk .However ,further studies including large number of cases are required to determine the reference values of epicardial fat thickness in order to be help full in clinical practice .

COAGULATION AND FIBRINOLYTIC VARIABLES IN SUBJECTS WITH METABOLIC SYNDROME

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Abstract

It has been noticed that the metabolic cardiovascular risk factors associated with the metabolic syndrome do not sufficiently explain excess cardiovascular risk attributed to this syndrome.. It was suggested that abnormalities in haemostatic system may contribute to this excess risk.. So, the aim of this study was to determine the levels of some of the haemostatic variables in subjects having metabolic syndrome and to correlate these values with the anthropometric and metabolic variables associated with this syndrome.

The study included 46 obese non diabetic subjects of whom 28 subjects(group1) fulfilled the ATP III criteria of the metabolic syndrome and 18 subjects (group2) did not have metabolic syndrome as well as 14 lean subjects (group 3) of matched age and sex as a control group. Clinical and laboratory evaluation of the study groups stressed on anthropometric measurements (weight, height, body mass index, waist circumference, and sagittal abdominal diameter),blood pressure , and laboratory measurements of fasting glucose, fasting insulin, lipids, tissue plasminogen activator (t-PA) antigen, antithrombin III activity (ATIII) , protein C antigen and von Willebrand factor (vWf) antigen.

The main results of this study included a significant increase in the concentrations of t-PA and vWf antigens in subjects having metabolic syndrome (group 1) in comparison to the other groups while their were non significant changes in the levels of protein C antigen and AT III activity. Both t-PA and vWf showed significant correlation with HOMA-IR as a measure of insulin sensitivity. The t-PA showed also significant correla-

tion with most of the variables of metabolic syndrome including waist circumference, BMI, systolic blood pressure, fasting glucose, fasting insulin, and HDL cholesterol. On the other hand, vWf showed significant correlations with fasting glucose, fasting insulin and sagittal abdominal diameter, with non significant correlations with the other variables.

It was concluded that the t-PA and vWf antigens concentrations were increased in subjects with metabolic syndrome and correlated with the HOMA-IR measure of insulin sensitivity. Taking into consideration that both t-PA and vWf are mainly released from vascular endothelium, these findings could be an indicator of endothelial dysfunction in those group of subjects.

NITRIC OXIDE CONCENTRATIONS AND ITS INDUCIBLE SYNTHASE GENE EXPRESSION IN NEPHROTIC SYNDROME PATIENTS

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Abstract

Background: Nitric oxide (NO) plays an important regulatory and modulatory role in a variety of inflammatory conditions. However, its role in nephritis is controversial. The aim of the present study is to assess nitrite levels and expression in nephrotic patients.

Patients and methods: Thirty-seven patients of both genders (9 males and 28 females) with mean age of 23.86 years who had nephrotic syndrome. We excluded diabetic patients and those who had secondary nephrotic syndrome apart from lupus nephritis. All patients were subjected to a thorough clinical and laboratory evaluation profile besides estimation of urinary and serum nitrite and determination of the expression of inducible NO gene in their blood. All of them were subjected to renal biopsy.

Results: In comparison to a normal control, our patients showed statistically significant elevated levels of urinary and serum nitrite concentrations. Moreover, our patients showed inducible nitric oxide gene expression in the blood of 67.5 % of them compared to zero % in the control group ($p < 0.001$). Further analysis of idiopathic nephrotic syndrome group showed that steroid resistant patients had a statistically significant higher urinary nitrite level than steroid dependent ones with no significant difference in serum nitrite and blood iNOS gene expression.

Conclusion: Nephrotic syndrome patients had a significant inducible nitric oxide synthase mRNA gene expression and elevated urinary, serum nitrite levels. Prospective studies to evaluate therapies targeting NO may be warranted in this sector of patients.

Key words: Nitric oxide, gene expression, nephrotic syndrome

TRANSCUTANEOUS BILIRUBINOMETRY IN PRETEM AND FULLTERM INFANTS UNDER PHOTOTHERAPY

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Abstract

Aim: *To evaluate the reliability of transcutaneous bilirubinometry (TcB) during phototherapy in both preterm and fullterm infants with neonatal hyperbilirubinemia.*

Methods: *One-hundred neonates, 50 of them were preterm and the other 50 were fullterm infants with non-hemolytic indirect hyperbilirubinemia, who required phototherapy, were included in the study. Simultaneous total serum bilirubin (TSB) and transcutaneous measurement on exposed part of forehead (TcB_E) and adjacent non exposed area (TcB_{NE}), under the eye patch, were done before the start of phototherapy and at 12, 24, and 48 hours of phototherapy treatment.*

Results: *A close correlation between TcB values and bilirubin levels was observed before phototherapy treatment in the areas which will defined as non exposed and exposed areas ($r=0.886$ and 0.884 in preterm and $r=0.890$ and 0.893 for fullterm neonates, $p<0.001$ for both). After phototherapy treatment a correlation was also found between the TcB and TSB values, but this correlation was less than before phototherapy. The correlation for the non exposed part (TcB_{NE}) was significantly better than that of the exposed part (TcB_E) ($r=0.803$, $p<0.001$ and $r=0.694$, $p<0.05$ for preterm infants respectively and $r=0.813$, $p<0.001$ and $r=0.683$, $p<0.05$ for fullterm infants respectively).*

Conclusion: *Using transcutaneous bilirubinometry, the non exposed parts show better correlation than exposed ones, however the correlation is less than before phototherapy. So transcutaneous bilirubinometry can be used for evaluation of bilirubin levels in both preterm and fullterm neonates receiving phototherapy by using the non exposed skin of forehead ,*

Osama Zaki A. and Anas A. El-Rahman _____;

under eye patch, and this may significantly reduce the number of blood samples.

RELATION BETWEEN CIRCULATING MONOCYTE CHEMOATTRACTANT PROTEIN-1 AND EARLY DEVELOPMENT OF NEPHROPATHY IN TYPE 1 DIABETES IN CHILDREN AND ADOLESCENTS

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Abstract

Background: Nephropathy and renal failure are considered as one of the major complications of diabetes. Microalbuminuria is regarded as the earliest clinical sign of incipient nephropathy. A causal relationship between chronic hyperglycemia and diabetic microvascular disease has been established by various studies.

Objectives: To investigate the role of hyperglycemia dependant monocyte chemoattractant protein-1 (MCP-1) in the development of early nephropathy in pediatric patients with type 1 diabetes.

Methods: Thirty patients with type 1 diabetes were included, 15 of them with microalbuminuria and the rest without microalbuminuria. Ten healthy subjects matched for age and sex served as controls. Plasma MCP-1, lipid peroxide (LP), vitamin E, glycated hemoglobin (HbA1c), and 24 hour urine albumin were evaluated at baseline. After 8 weeks of high dose of vitamin E (600mg b.i.d), MCP-1, HbA1c and 24hours urinary albumin were evaluated again.

Results: MCP-1 and LP were significantly higher, whereas vitamin E were significantly lower in patients with microalbuminuria and poor glycaemic control as compared with normoalbuminic patients and controls (941.67±47.03, 622.73±103.23 and 366.60±129.01pg/ml for MCP-1 respectively, 3.27±0.48, 2.9±0.52 and 2.32±0.34u/gHb for LP respectively and 6.1±1.3, 7.9±1.2 and 8.2±1.3 mg/L for vitamin E, p<0.001). Plasma MCP-1 was positively correlated with HbA1c, LP and urinary albumin, while MCP-1 showed negative correlation with vitamin E. After vitamin E

administration, MCP-1 and urine albumin decreased significantly despite no change in HbA1c level in the microalbuminuric patients (941.67 ± 47.03 vs 685.67 ± 45.74 pg/ml and 251.80 ± 43.86 vs 174.80 ± 41.74 respectively, $p < 0.001$).

Conclusions: Prolonged hyperglycemia may lead to renal complications in type 1 diabetes. Oxidative stress increased in patients with poor glycemic control and leads to increased MCP-1 biosynthesis resulting in the recruitment of monocytes into the kidney. Treatment with vitamin E significantly decreased MCP-1. So vitamin E can be given beside conventional insulin therapy in type 1 diabetic patients in whom an acceptable glycemic control is difficult to achieve.

ASSESSMENT OF SUBTLE LEFT VENTRICULAR SYSTOLIC DYSFUNCTION IN PATIENTS WITH DIASTOLIC HEART FAILURE

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Abstract

Objective: the aim of this work is to evaluate the impact of subtle left ventricular systolic dysfunction in patients with left ventricular diastolic dysfunction.

Materials and methods: this study included 40 male and female patients who were divided into two equal groups and 10 healthy control persons. Group I included patients with systolic heart failure and group II included patients with left ventricular diastolic dysfunction. All patients were subjected to thorough history taking, full clinical examination, resting ECG, echocardiography with assessment of left ventricular systolic function, left ventricular diastolic function, tissue Doppler study, and left ventricular A-V plane displacement.

Results: left ventricular systolic A-V plane displacement was significantly lower in patients with diastolic dysfunction than control subjects (8.3 ± 0.7 mm versus 14.5 ± 2.7 mm respectively and the mean velocity of Sm wave by DTI was significantly lower in DHF group than control group (7.24 ± 1.41) mm versus (9.04 ± 1.54) mm respectively.

Conclusion: In patients with DHF, there was some degree of left ventricular systolic dysfunction. Diastolic heart failure appears to be a part of continuum between normal and severely impaired LVSF.

CANINE FOSSA PUNCTURE FOR REMOVAL OF ANTRAL PORTION OF ANTROCHOANAL POLYP USING THE MICRODEBRIDER

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Abstract

This study was made to evaluate a modified surgical technique for endoscopic removal of the antral portion of antrochoanal polyp (ACP) by powered instrumentation. Twenty patients with ACP (12 male and 8 female patients; age range, 13-50 years; mean age, 14.8 years) were included in this study. All patients had unilateral ACP and underwent ESS by powered instrumentation.

The usual technique of ESS was performed. The intranasal portion of ACP is removed and the natural ostium of the maxillary sinus is enlarged, to obtain a good surgical view of the sinus. A trocar consisting of a cannula and a sheath is inserted sublabially into the maxillary sinus through the canine fossa, and the cannula is removed, leaving the sheath in the canine fossa. A 4-mm, 30° endoscope is inserted into the maxillary sinus through the sheath to examine the interior of the sinus. After careful observation of the maxillary sinus, the endoscope and the sheath are removed, and a cutter blade of powered instrumentation is inserted into the sinus through the hole created by the above-mentioned procedures. The blade tip is identified through the enlarged ostium under intranasal endoscopy using a 70° endoscope. Then the antral portion of the ACP is resected by powered instrumentation. When all steps of surgery are completed, nasal packs are placed in the nasal cavity for 1 day.

Improvements of clinical symptoms and endoscopic and CT findings were evaluated postoperatively. Nasal obstruction was assessed by a 100-mm visual analogue scale. The scores before operation were compared with those at the last visit after operation. Endoscopic examination of all 20 sinuses was performed postoperatively at the last visit. The si-

nus mucosa was observed through the enlarged natural ostium, using a 4-mm, 70^o endoscope. Endoscopic findings were graded using a three-point scale ranging from 0 to 2. Improvement in CT findings of the 20 maxillary was evaluated. The postoperative CT scans were obtained at least 1 year after operation. Computed tomographic findings were graded using a three-point scale ranging from 0 to 2.

Symptom scores were all significantly reduced postoperatively. All but one patient showed improvement in clinical symptoms and endoscopic and computed tomographic findings during the follow-up period. There were no major complications specific to this technique.

This technique may be an alternative to other methods for removing the antral portion of an ACP and is associated with excellent outcomes and minimal morbidities.

ENDOTHELIAL DYSFUNCTION ASSOCIATED WITH LEFT VENTRICULAR DIASTOLIC DYSFUNCTION IN-PATIENTS WITH ESSENTIAL HYPERTENSION

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Abstract

Background. Previous studies have demonstrated that vascular endothelial dysfunction is related to the degree and patterns of left ventricular hypertrophy (LVH) in patients with essential hypertension (HTN). However, it is not clear whether endothelial dysfunction develops with the progression of LV diastolic dysfunction. Objectives. We sought to assess the correlation between endothelial vasodilation and LV diastolic function in essential HTN. Methods. Using high-resolution ultrasound, we measured the dilator response of the brachial artery to hyperemia (endothelium-dependent vasodilation) and to 0.5 mg nitroglycerin (endothelium-independent vasodilation), and measured peak velocities of the early wave (Evmax) and the atrial wave (Avmax) in 100 patients with essential HTN and 20 normal subjects. We analyzed the relationship between the Evmax/Avmax ratio and endothelium-dependent vasodilation. Results. The results showed that endothelium-dependent and endothelium-independent vasodilation as well as the Evmax/Avmax ratio was lower in the hypertensive group than those in the control group (5.2%±1.2%, 12.4%±2.1%, 0.8±0.2 vs. 10.5%±2.4%, 22.2%±3.3%, 2.1±0.29, respectively; P<0.01). There was a positive significant correlation between Evmax/Avmax ratio and endothelium-dependent vasodilation (r= 0.58, P<0.01). Conclusions. Our results showed that the development of endothelial dysfunction was associated with the progression of myocardial diastolic dysfunction in patients with essential HTN, which suggests that the same mechanisms may be involved in the impairment of endothelium and myocardium.

**PROINFLAMMATORY CYTOKINES
IN CONGESTIVE HEART FAILURE :
CORRELATION WITH CLINICAL AND
ECHOCARDIOGRAPHIC VARIABLES**

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Abstract

Background. The possibility that cytokines can play a role in the progressive deterioration of left ventricular (LV) function has emerged in recent years. To address this issue we 1) further investigated the hypothesis of activation of TNF alpha and IL-6 in patients with congestive heart failure (CHF), and 2) estimated the clinical and echocardiographic factors for increased of these cytokines in these patients. Methods. We determined serum levels of TNF alpha and IL-6 in 75 consecutive patients with mild and severe CHF and then correlated these data with clinical and echocardiographic variables. Results. Both plasma levels of TNF alpha and IL-6 were significantly higher in patients with CHF than in control subjects. On multivariate Cox proportional hazards regression analyses, LV end-diastolic diameter (LVDd) showed independent and significant positive relation ($P<0.01$), and body mass index (BMI) showed independent and significant negative relation ($P<0.01$) with plasma TNF alpha levels among 17 clinical and echocardiographic variables. Moreover, LV mass and female gender showed independent and significant positive relations ($P<0.01$) with the plasma IL-6 levels. Conclusions. Our results do not support the hypothesis that increased production of cytokines is only related to the severity of CHF independent of other factors, and suggesting an important role for other clinical and echocardiographic factors in cytokine activation in CHF.

BONE MINERAL DENSITY AND RHEUMATOID ARTHRITIS

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Abstract

Background: Rheumatoid arthritis (RA) is one of the causes of secondary osteoporosis. Several studies showed that patients with RA have number of risk factors for osteoporosis such as decreased physical activity, duration of disease, steroid use, and disease activity.

Objective: to evaluate the bone mineral density in patients with rheumatoid arthritis considering the demographic characteristics of patients, disease activity and different modalities of drug therapy.

Setting: Department of Medicine, Mansoura Faculty of Medicine, Mansoura.

Patients & Methods: The study comprised 87 patients with rheumatoid arthritis and 40 healthy control. All patients had reports about degree of physical activity, smoking habits, daily intake of milk products and history of fractures. Disease activity of RA was considered. All patients and control had BMD evaluated with DEXA.

Results: BMD was significantly lower for women with RA compared with males with RA (0.359 ± 6.89 versus 0.451 ± 4.06) and in postmenopausal compared with premenopausal women with RA (0.325 ± 7.57 versus 0.421 ± 5.66). Age and cigarette smoking negatively correlated with BMD while daily intake of milk products and daily physical activity showed positive correlation with BMD. All markers of disease activity were negatively correlated with BMD. As regards the drug therapy, BMD did not significantly differ between treated groups. BMD was reduced in RA patients with history of fracture than in patients without history of fracture, (0.351 ± 7.25 versus 0.37 ± 5.38) however, these differences were not statistically significant.

Conclusion : *BMD loss is greater in RA patients than in sex and age-matched healthy controls. Age, disease activity and lack of physical activity or inadequate intake of milk products are markers to patients at increased risk of osteoporosis.*

**STUDY THE EFFECT OF ERADICATION OF
HELICOBACTER PYLORI INFECTION ON
PLASMA FIBRINOGEN LEVEL IN
PATIENTS WITH ISCHAEMIC
HEART DISEASE**

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Abstract

Recent studies have suggested that chronic infection with H.pylori may be associated with the risk of ischaemic heart disease.

Aim of the work: *Our aim was to evaluate a possible relationship between H.pylori infection, plasma fibrinogen and ischaemic heart disease.*

Patients and methods: *This study was conducted on 35 patients with ischaemic heart disease divided into two groups. Group (I) included 20 patients with H. pylori seropositivity. Group (II) included 15 patients with H.pylori seronegativity. 10 healthy subjects as control group (III). To all patients and controls (1) clinical examination, ECG, Echocardiography to confirm IHD lesions and upper GIT endoscopy with urease test for H.pylori (2) Serum H.pylori IgG titres (3) Plasma Fibrinogen levels. Plasma fibrinogen levels were also detected in patients of group I after eradication of H.pylori.*

Results: *The mean value of H.pylori IgG titres for seropositive patients before treatment was 126.71 ± 34.24 AU and seronegative group II was 20.83 ± 5.79 AU and for control 82.08 ± 85.86 AU with statistically significant differences between all groups.*

Plasma Fibrinogen mean value (\pm SD) for seropositive patients before treatment was 3.87 ± 0.29 gm/L, for seronegative patients was 2.96 ± 0.41 gm/L, for controls was 3.33 ± 0.56 gm/l. and its mean value \pm SD in seropositive patients after treatment was 3.30 ± 0.25 gm/L.

Fibrinogen levels were significantly higher in seropositive patients be-

fore treatment of H.pylori than other groups ($P < 0.001$), while non significant differences in its levels were found after eradication of H.pylori compared to the other groups ($P > 0.05$).

H. pylori treatment significantly reduced fibrinogen levels in IHD ($P < 0.001$) and the decrease was positively correlated with the reduction of H.pylori IgG titers ($r = 0.533$, $P < 0.05$).

Conclusions: *H.pylori infection may be regarded as a risk factor for IHD patients through elevation of plasma fibrinogen and its treatment might be suggested as a means of interacting with that emerging risk factor.*

BENIGN POSTCHOLECYSTECTOMY BILE DUCT STRICTURE, ENDOSCOPIC TREATMENT

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Abstract

Introduction: Surgical correction has been the treatment of choice for benign bile duct stricture. After the introduction of endoscopic dilatation, nonsurgical treatment has been suggested as a therapeutic option with 74-98% long- term success.

Aim: Evaluation of short & long - term results of endoscopic stricture dilatation with repeated stenting with increasing number of stents.

Patients& Methods: In the period between 1994-2004, 17 cases with postoperative bile duct stricture were included: 10 females and 7 males. Mean age 42 years .12 cases follow open cholecystectomy, 2 cases laparoscopic cholecystectomy and 3 cases Present with choledochduodenal fistula after cholecystectomy. Hilar stricture was found in 16 cases: Type I Bismuth in 5 cases , Type II in 8 cases and type III in 3 cases and middle 1/3 CBD stricture in one case. All cases were subjected to ERCP and repeated dilatation of stricture; first with soehendra dilators then using balloons with insertion of gradually increasing number of stents. These were changed every 3 months for 1 year.

Results: Average number of sets until complete dilation was 3.9 (1-11). Average duration of treatment 2 years (1- 10 years). No hospital mortality. Complications include mild hyperamylasemia in one case. 2 cases were referred to surgical reconstruction .All other cases were dilated and follow up is now 11 years .Recurrent stricture occurred in 3 cases & treated endoscopically .

Conclusion: Endoscopic stricture dilatation with stenting for postcholecystectomy bile duct stricture is an alternative to surgery especially in Hilar stricture and cases with secondary biliary cirrhosis. However it needs repeated sets, more cost and has no serious complications. It doesn't in-

Mohamed M. El-Shobari

terfere with subsequent reconstruction if needed .So; it should be the preferred initial line of treatment in selected cases.

**EPSTEIN BARR VIRUS AND HUMAN T
LYMPHOMA/LEUKEMIA VIRUS IN EGYPTIAN
CHILDREN WITH LEUKEMIA
OR LYMPHOMA**

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Abstract

Viral infections have been associated with certain human cancers, including T-cell leukemia, and Burkitt's lymphoma.

We aimed to study the incidence of Epstein Barr Virus (EBV) and Human T-cell Lymphoma / Leukemia virus type I (HTLLV-I) in lymphoma and Leukemia patients of Egyptian children and to evaluate the significance of detection of the viral markers for prediction of the disease.

This study was performed on 80 patients suffering from leukemia and lymphoma. Their ages ranged between 5-15 years. They were divided according to the type of disease into 3 diseased groups: Acute lymphoblastic leukemia group (ALL) comprised 40 children, Hodgkin's disease group (HD) comprised 20 children and Non Hodgkin's lymphoma (NHL) patients included 20 children. Twenty healthy children were served as a controls. All children were evaluated by full history taking, thorough clinical examination and laboratory investigations including CBC, ESR, liver and renal function tests. Bone marrow aspirate and examination was done. Serum level of antibodies IgG to Epstein Barr viral capsid antigen and to human T lymphotropic virus-1 were assessed in all the studied children.

The results showed aggressive clinical course of significant value in ALL patient group, also they showed significant decrease in hemoglobin count ($P < 0.01$) and platelet count ($P < 0.001$) and significant increase in total leucocytic count ($P < 0.001$) compared with other studied groups. As regards EBV antibody titres they were highest in HD with a mean serum level of $(121.5 \pm 65.77 \text{U/ml})$ followed by ALL $(99.3 \pm 67.60 \text{U/ml})$ and the least one was NHL $(78.35 \pm 69.75 \text{U/ml})$, however, the differences were sta-

tistically non significant ($P>0.05$). The percent of positivity was (85%) in HD, (80%) in ALL and (70%) in NHL, but the differences still non significant ($P>0.05$). There was a significant positive correlations between (EBV) titre and both ESR 2nd hour and ALT in NHL patients ($r=0.546$, $P<0.05$ and $r=0.507$, $P<0.05$ respectively). But no significant correlations were detected between EBV antibody titres and age, HB, TLC, platelets, AST, ESR, uric acid, creatinine, peripheral blast or other parameters in the three patient groups.

In conclusion: the current study demonstrated that EBV is a lymphotropic virus and is associated with childhood Hodgkin's disease, Non Hodgkin's lymphoma as well as Acute lymphoblastic leukemia. On the other hand no positive infection with Human T leukemia/Lymphoma Virus (HTLLV) could be detected either in the patient groups or the control group. Routine serologic detection of EBV infection are recommended in school children either symptomatic or non symptomatic which is very important to guide for early antiviral therapy and follow-up to decrease the incidence of lymphoproliferative diseases and childhood oncogenesis and to help in the development of novel immunotherapeutic strategies for effective treatment.

SERUM E- SELECTIN AS A PROGNOSTIC MARKER FOR DIABETES MELLITUS (TYPE II)

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Abstract

Objectives: the purpose of this study was designed to evaluate the prognostic value of estimation of serum E-selectin in type II diabetic patients in a trial to correlate its level with their glycemic control and renal angiopathic complications. **Backgrounds:** Diabetes is characterized by many complications where the most important complications are the vascular ones in the form of microangiopathy and atherosclerotic changes such as nephropathy, retinopathy and neuropathy. The level of soluble form of E-selectin has been detected increased in sera of patients with type II diabetes mellitus where in type 2 DM there is increased endothelial dysfunction and chronic inflammation. Increased serum levels of cell adhesion molecules may be pathognomonic for diabetic microangiopathic changes in diabetic patients.

Methods: This study was carried out on 45 patients with type 2 diabetes mellitus and 15 apparently healthy volunteers as a control group. The patients groups were divided into 3 groups according to the presence of protein in urine, group I (15 patients) whose were normoalbuminuric, group II (15 patients) whose urine revealed the presence of microalbuminuric and group III (15 patients) whose urine showed macroalbuminuric. Serum soluble E- selectin was measured by quantitative sandwich enzyme immunoassay technique in all subjects.

Results: Serum levels of E-selectin showed significant increase in group I (59 ± 16.76 ng/ml , $p < 0.05$), group II (58.1 ± 15.2 ng/ml, $p < 0.05$) and group III (81.7 ± 13.8 ng/ml , $p < 0.01$) when compared to control group (group IV). A non significant difference was found between group I and group II but there is statistically significant difference between group I and group III. Also, there was a significant positive correlation between the serum levels of E-selectin and each of duration of diabetes ($r = 0.47$,

p<0.05), FBS (*r*=0.53, *p*<0.05), 2 hPPBS (*r*=0.51, *p*<0.05), HBA1C (*r*=0.48, *p*<0.05), urinary protein (*r*= 0.54, *p* <0.01), systolic blood pressure (*r*= 0.45, *p*<0.05) and diastolic blood pressure (*r* = 0.67, *p*<0.05). We concluded that serum soluble E-selectin levels increased in patients with type 2 diabetes mellitus. This may be due to the formation of irreversible advanced glycation end products which induce expression of sE-selectin on the activated endothelial cells. From these results increased soluble E-selectin level, in patients with type 2 diabetes mellitus could be used as a predictor of endothelial dysfunction and occurrence of angiopathies and used as a monitor for the long term glycemic control in these patients.

**SERUM AND ASCITES NITRIC OXIDE :
VALUE IN CIRRHOTIC PATIENTS WITH
AND WITHOUT SPONTANEOUS
BACTERIAL PERITONITIS**

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Abstract

Nitric oxide (No) is a messenger molecule involved in pathogen suppression. Liver cirrhosis is characterized by an increased risk for infections, including Spontaneous Bacterial Peritonitis (SBP). The role of NO in infections that develop in cirrhosis has not been fully investigated. The present study has aimed at investigation of the status of serum and ascites NO in cirrhotic patients with and without SBP and its relation, if any, with the parameters of liver function. The study was carried out on 56 patients suffering from liver cirrhosis and ascites with and without SBP. Their ages ranging from 35-70 years (mean: 53.55 ± 9.5years). Thorough history taking, complete clinical examination, and routine investigations including complete blood picture, serum creatinine, liver function tests (serum albumin, bilirubin, SGOT, SGPT and prothrombin activity), hepatitis B surface antigen, Hepatitis C antibodies, blood culture, ascitic fluid cytology and culture for aerobic organisms, anaerobic organisms, & culture for rare organisms, besides serum and ascites NO assay, were all undertaken. The study revealed a significant elevation of serum and ascites NO in SBP groups than non SBP group (P=0.009, 0.001, 0.0001 -0.001, 0.003, and 0.001). Moreover, their levels have been reduced significantly after treatment of SBP (P=0.0001, 0.0001, 0.0001, -0.0.009, 0.04, and 0.001 respectively). Although, serum NO showed no correlation with serum bilirubin, albumin, or prothrombin activity, it was found to be positively correlated with the Child-Pugh class of the studied patients (P=0.045, 0.013, 0.001, and 0.045 respectively), however, ascites NO was not. In addition, ascites NO level was not correlated with any of the laboratory parameters of as-

citic fluid among the studied patients. The present study have shown also that; serum and ascites NO levels were found to be significantly higher in SBP patients with functional renal failure than those without. It is to be noted that; serum and ascites NO were correlated with each other ($P = 0.045, 0.005, 0.004$, respectively).

It can be concluded that; both serum and ascites NO levels exhibited a significant elevation in cirrhotic patients especially those with SBP. Rather, ascites NO levels reflect serum levels, being higher in cirrhotic patients with more severe liver disease, and might be a useful prognostic marker.

LIGHT AND ELECTRON MICROSCOPIC STUDY ON THE EFFECTS OF KETOCONAZOLE (NIZORAL) ON THE KIDNEY OF ALBINO RATS

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Abstract

In this study, thirty adult male albino rats were used. They were classified into three groups; one control and two experimental groups (10 rats each). Rats of the first experimental group (group I) had received 5.5 mg of the broad-spectrum antifungal Nizoral every day for two weeks. While rats of the second experimental group (group II) had received the same dose for four weeks. At the end of drug administration, animals of both control and experimental groups were anaesthetized and the kidneys were enucleated and processed for histological and ultrastructural studies. Light microscopic examination of all specimens of control rats was similar and had revealed normal structure for the kidney. Specimens of group I experimental rats showed hypercellularity and hypertrophy of the capillary tuft of renal corpuscles, mild degree of degeneration affecting cells of the convoluted tubules, obliteration of tubular lumens, vascular congestion, presence of few scattered haemorrhagic spots and mild thickening of the basement membranes of the glomeruli and convoluted tubules as a result of deposition of extraordinary amount of collagen fibers. As regards group II experimental rats, the histological examination of rat kidney had revealed marked hypercellularity and proliferation of glomerular capillary tuft, marked hydropic degeneration of the cellular cytoplasm of the convoluted tubules, partial destruction of the brush border, hyaline red casts, massive tubulo-interstitial haemorrhage and marked deposition of extraordinary amount of collagen fibers around glomerular and tubular basement membrane.

At the electron microscopic level, specimens of the control group revealed normal structure of the rat kidney. In group I experimental rats, it

was observed that the ultrastructural changes were not symmetrical, the basement membrane thickening was the prominent finding as well as fusion of some minor foot processes with, obliteration of the filtration slits, and cellular degeneration of the convoluted tubules as evidenced from the presence of large number of degenerated mitochondria. Most of them lost their internal cristae. But few of them clarified a destruction of a local area of the outer membrane. In group II experimental rats, focal widened areas of the glomerular basement membranes were observed with fusion of some minor and major foot processes which occurred at the expense of the filtration slits which were markedly reduced or completely obliterated.

In conclusion, long term administration of Nizoral induced variable degrees of renal damage.

SERUM INTERLEUKIN-6 LEVEL AND SOME BLOOD INDICES AMONG NEONATS WITH RESPIRATORY DISTRESS

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Abstract

Background; Cytokines are involved in a wide spectrum of immune and non-immune biological events causing neonatal respiratory distress, as early onset neonatal sepsis, hyaline membrane disease (HMD) and transient tachypnea of newborn (TTN). Objectives: To investigate if early detection of serum level of interleukin-6 (IL-6), total leucocytic count (TLC), immature to total neutrophils ratio {I/T} and platelet count, could distinguish early onset sepsis from other causes of respiratory distress in the newborn as HMD or TTN. Subjects: This cross sectional case-control study included 60 infants, classified according to physical examination and laboratory work into 4 groups: group A, included 15 newborn with sepsis, 9 males and 6 females, their mean gestational age was 38.13 ± 1.64 week, and their mean weight was 3.806 ± 1.16 kg. Group B, included 15 newborns with TTN, 11 males and 4 females, their mean gestational age was 39.1 ± 1.2 week and their mean weight was 3.81 ± 0.12 kg. Group C, included 15 preterm with HMD, 7 males and 8 females, their mean gestational age was 32.6 ± 1.92 week and their mean weight was 1.65 ± 0.36 kg. Also, 15 full term neonates, 5 males and 10 females, their mean gestational age was 39.6 ± 0.84 week, and their mean weight was 3.61 ± 0.23 , served as a control group. Methods: All cases were subjected to the following: Complete blood Count, C reactive protein, serum level of IL-6 and chest X-ray. Results: The results of this study showed a highly significant increase in the mean serum level of IL-6 in the septic and TTN groups when compared with control group ($P < 0.01$). A highly significant increase in serum level of IL-6 in the septic group when compared to TTN group ($P < 0.01$), while in HMD group, no significant difference was found in the mean

serum IL-6 value when compared to septic group ($P>0.05$), but there was a significant increase when compared to TTN group ($P<0.05$). A significant correlation was found between IL-6 and TLC ($r = 0.583$, $P<0.05$), I/T ratio ($r = 0.611$, $P<0.05$) and platelet count ($r = 0.565$, $P<0.05$) in the septic group. As regards HMD group, a highly significant correlation was found between IL-6 and TLC only ($r = 0.722$, $P<0.01$), while no significant correlation was found between IL-6 and I/T ratio or platelet count. TTN group showed no significant correlation at all between IL-6 and the three parameters. Conclusion: Serum level of IL-6 could be used as a helpful tool to differentiate early onset sepsis from TTN but did not differentiate between septic cases and newborns with HMD. Serum level of IL-6 is considered as an earlier marker for sepsis than the hematological indices. Also TLC and platelet count were the least useful indices of neonatal sepsis, while I/T ratio was considered a useful indicator of infection.

LEFT VENTRICULAR MASS AND SYSTOLIC FUNCTION IN NORMOTENSIVE OBESE CHILDREN

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Abstract

Background: Obesity have been associated with a higher prevalence of cardiovascular disease (CVD) risk factors and a higher CVD morbidity and mortality which manifested already in childhood and adolescence. Objectives: Evaluating the effect of obesity on cardiac structure and function in normotensive obese children. Subjects: This cross-sectional case control study included 50 obese children divided according to age into 3 groups: Group A included 18 obese children (9 females - 9 males) their ages ranged from 3 to 6 years, their mean weight was 34.2 ± 6.97 kg and their mean height was 114.6 ± 9.12 cm. Group B included 10 obese children (4 females - 6 males) their ages ranged from 7 to 9 years, their mean weight was 44.6 ± 9.45 kg and their mean height was 129.16 ± 7.82 cm. Group C included 22 obese children (6 females - 16 males) their ages ranged from 10 to 15 years; their mean weight was 74.6 ± 6.45 kg and their mean height was 149.16 ± 13.12 cm. Blood pressure of the 3 groups was within normal range for their ages. Methods: All cases were subjected to thorough clinical examination, body weight, height, triceps skin folds (TSF) and sub scapular skin folds (SSF) assessments, blood pressure measurement, laboratory investigations [serum cortisol, cholesterol, triglycerides, low density lipoproteins and high density lipoproteins], X-ray head and wrist, and echocardiographic assessment. Results: The results of this study showed that obese children weight was ranged from 27 to 123 kg, height was ranged from 95 to 172 cm, body mass index (BMI) was ranged from 23.9 to 42.6, obesity index (O.I.) was ranged from 1.44 to 3.07, TSF was ranged from 16.8 to 36.1 cm. and SSF was ranged from

14.3 to 29.9 cm .Left ventricular mass (LVM) was found to be significantly higher in obese children than in controls in group A and C ($P < 0.01$ and $P < 0.05$ respectively). A significant positive correlation was observed between LVM and both O.I. and BMI, also a significant positive correlation was found between LVM and both SSF and TSF. LVM were higher in males than females ,while B.M.I., O.I., TSS and SSF were higher in females than males. Conclusion: Obesity in normotensive obese children is significantly correlated with an increase in LVM and impaired left ventricular systolic function even after controlling for age and blood pressure. Obesity affects LVM and geometry in children as young as 3 years. Further studies are recommended in order to detect the effect of weight reduction on these echocardiographic findings and the relation of these changes with the development of cardiac complications.

**ATTITUDE AND ROLE OF HEALTH CARE
WORKERS TOWARD ANTI-SMOKING
MEASURES AND LEGISLATIONS AT
THE CAPITAL GOVERNORATE
HEALTH REGION, KUWAIT**

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Abstract

Objectives: This study demonstrates the attitude of health care workers (HCWs) in capital region (including Amiri hospital & health centers working at ministry of health) towards antismoking legislations in Kuwait, and towards their professional responsibility role in smoking cessation program for their patients, and determine the attitude of non smokers towards those who smoke in different situations. Subjects & methods: A cross sectional study was conducted during August and September 2003. All HCWs at Ministry of Health facilities, Capital Region, including AL-Amiri hospital and the health centers propagated through the Capital Region, were invited to participate using an anonymous self-administered questionnaire. The survey collected information on soci-demographic characteristics, attitude of HCWs towards anti-smoking legislations, and towards their professional responsibility role in smoking cessation program for their patients, and to determine the attitude of non-smokers towards smoker in different situations. Results: A total of 1625 respondents (604 male, 1021 female) were included in the study. The prevalence of smoking among the HCWs was 16.80%. More than 90% of HCWs support legislations to prohibit smoking in hospital & health care centers, to ban tobacco sales to children & advertisement of tobacco Product, and encourage clear

print of health warning on cigarette packages .The attitude of non-smokers towards someone smoke in different places is disappointly passive. About 87% of respondents agree to ask & advise the patients about his smoking status, and 75% agree that advice of physician to his patients to stop smoking increases the probability of their quite. Overall the attitude of respondents varied according to their smoking status and their occupation; current smoker were significantly. ($p < 0.0001$) less in favor of antismoking legislations and less likely to ask patients about their smoking status than non & ex-smokers. Conclusion: HCWs realized that the use of tobacco products could have a detrimental effect on health. They support promotion of smoke free workplaces, restriction on youth access to tobacco products and on advertisement and promotions directed towards children. They have ample opportunity to assist patients to stop smoking and support antismoking legislations in Kuwait

SPECTRUM OF CHRONIC LIVER DISEASES IN EGYPTIAN CHILDREN IN BENHA

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Abstract

We studied Retrospectively 70 patients with chronic liver disease in Benha University Hospital from 2000 to 2004. Our aim was to define the spectrum of chronic liver diseases presented to our pediatric hepatology clinic. The study included 50 males and 20 females with age ranging from 21 days to 13 years. All patients underwent liver biopsy, sonographic and biochemical analysis. Our results revealed that sixteen patients (22.85%) had chronic hepatitis, 12 (17.14%) had cholestasis, 12 (17.14%) had metabolic liver diseases, 7 (10%) had active micro nodular cirrhosis, 5 (7.14%) had hepatoportal fibrosis, one case (1.42%) had congenital hepatic fibrosis and 3 (4.28%) had fatty infiltration. Three patients (4.28%) had vascular hepatic disorders, 1 (1.42%) with parasitic hepatic infestation, 1 (1.42%) had osteopetrosis and 9 (12.85%) had non specific changes. We have tried to use an independent predictor of liver fibrosis (AST/ALT ratio) and our results show that its sensitivity and specificity were (68.1%) and (60.4%) respectively.

We concluded that liver biopsy should be performed as early as feasible in the course of liver disease and should be repeated. It will not only facilitate diagnosis and treatment but also help to increase our understanding of the various disease processes.

THE EFFECTS OF PREANAESTHETIC INTRAMUSCULAR MIDAZOLAM OR KETAMINE ON PROPOFOL CONSCIOUS SEDATION DOSAGE DURING SPINAL BLOCK

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Abstract

Propofol is commonly used for conscious sedation as an adjunct to spinal anaesthesia. The aim of this study was to compare the effects of pre-anaesthetic intramuscular midazolam or ketamine on propofol conscious sedation dosage during spinal block.

This study was conducted on 75 male patients undergoing elective general surgery randomly divided into three equal groups (i.e n=25 each) : group {I} placebo-propofol group {P-Pf} were given 2 ml saline i.m., group {II} midazolam-propofol {Mz-Pf} received 0.3mg/kg in 2 ml saline i.m. and, ketamine-propofol group {III} {Kt-Pf} were injected with 1mg/kg in 2 ml saline i.m. The previous medication was administered 30 min before arrival of patients at the operating room. Patients and anesthesiologist were blinded to the contents of each syringe until the study was completed. After spinal anaesthesia was established, sedation score between 3 and 4 on a five-point scale was maintained using a variable-rate propofol infusion. During sedation, the propofol requirements and complications were recorded. Continuous data were summarized using mean±SD and analysed using one-way analysis of variance {ANOVA}

Results showed that, The loading dose {mg/kg} was 1.33 ± 0.20 for control group, 0.85 ± 0.11 for midazolam-propofol and 0.98 ± 0.12 for ketamine-propofol { $P < 0.000$ }. The steady state infusion rates {mg/kg/hr} was 3.92 ± 0.50 for {P-PF}, 2.55 ± 0.38 for {Mz-PF} and 3.11 ± 0.35 for {Kt-Pf} { $P < 0.000$ }. The overall mean infusion rate {mg/kg/hr} was 4.43 ± 0.44 for {P-PF}, 2.85 ± 0.38 for {Mz-PF} and 3.57 ± 0.3235 for {Kt-Pf} { $P < 0.000$ }. Preanaesthetic ketamine reduced the incidence of uncontrolled movements { $P < 0.05$ }. Other intraoperative complications revealed non signifi-

Hesham A. Abd Elmohymen and Aymen R. Abd El-Hasseb —————

cant changes.

In conclusion, Midazolam or ketamine premedication reduced propofol requirements and the incidence of some intraoperative complications during sedation with propofol as an adjunct to spinal anaesthesia.

**MID-SHAFT CLAVICULAR
NON-UNIONS ASSESSMENT OF OPERATIVE
TREATMENT USING PLATE FIXATION
AND AUTOGENOUS BONE GRAFTING**

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Abstract

Ten consecutive patients with clavicular non-union were treated using compression plating and iliac bone grafting. Seven patients were male and three were female and their ages ranged from sixteen to sixty years with an average of thirty-six years. The duration of symptoms before operation ranged from four months to six years. The average duration of follow up in our series was twenty-eight months (range six months to five years). All patients achieved clinical union by twelve weeks postoperatively with no operative or postoperative complications. The average time to radiographic union was nineteen weeks (range nine to forty weeks). All patients were asymptomatic by ten weeks and had a full painless range of motion of ipsilateral shoulder, with an acceptable cosmetic results. In our experience patients with symptomatic clavicular non-union should be treated by open reduction and internal fixation using compression plate and iliac bone graft.

**COMPARATIVE STUDY BETWEEN
INTRAUTERINE INSEMINATION AND
TIMED INTERCOURSE AS A TREATMENT
FOR MALE INFERTILITY**

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Abstract

Objective : The objective of this study was to evaluate the role of intrauterine insemination (IUI) in treatment of male factor of infertility and also to compare it with timed natural intercourse.

Setting : Infertility clinic, King Abdul Aziz Specialist Hospital, Taif, Saudi Arabia.

Patients and methods : Forty couples with primary infertility due to moderate semen defects and a period of infertility of at least two years were selected and randomly divided into 2 groups. The first group comprised 20 couples, who underwent IUI using prepared semen by swim up technique, while the second group comprised 20 couples who underwent timed intercourse.

Results : The results of the current study showed that there was no statistical significant difference between both groups as regard female age, male age, duration of subfertility, sperm count, motility and normal morphology of the sperms. Pregnancy rate (PR), PR/couple and PR/cycle, were significantly higher in group A when compared to group B, ($P < 0.05$ & < 0.001) respectively. There was no statistical significant difference between the occurrence of pregnancy and different semen parameters. Only, the mean duration of subfertility was significantly lower in the pregnant versus non pregnant cases $P < 0.05$.

Conclusion : It could be concluded that IUI is more effective than timed intercourse in treatment of male factor infertility, but further studies are

Khaled B. Soliman, et al...

needed to clearly define the impact of various semen parameters on the prediction of pregnancy outcome.

Key words: Intrauterine insemination, male infertility

LOW DOSE DOBUTAMINE WITH THALLIUM REINJECTION IN EVALUATION OF MYOCARDIAL VIABILITY

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Abstract

Background: Although both Thallium scintigraphy and dobutamine echocardiography have been used to assess left ventricular dysfunction in patients with coronary heart disease, the mechanisms by which these two methods identify viable myocardium are different.

Aim of the Study: investigate the value and limitation of low dose dobutamine during stress echocardiography and Thallium scintigraphy and the cost benefit of each of the two-non invasive tests.

Patients and Methods: Forty patients of CAD (31 males and 9 females) with their mean age of 49 ± 14 years were included in the study. All of them had clinical and angiographic proof of coronary artery disease. Patients underwent clinical examination, coronary angiography, resting and dobutamine echocardiography at rate of 5 & 10 $\mu\text{g}/\text{kg}/\text{min}$, and single photon emission computed tomographic Thallium scintigraphy, stress, redistribution, reinjection images were recorded then after 24 hours low dose dobutamine (5 $\mu\text{g}/\text{kg}/\text{min}$) followed by reingection image was done. The LV was divided into 20 segments for analysis of echocardiographic and Thallium images.

Results: Out of 800 myocardial studied segments of the 40 patients, there were 320 abnormal segments during resting echocardiography. Whereas 178 (55.6%) segments were detected to be viable by LDD echocardiography versus 154 (48.1%) segments which were detected to be viable by Thallium imaging. On the other hand, the two methods were in agreements in detection of 125 viable segments (39.1 %) and 113 non-viable segments (35.3%) i.e. 238/320 (74.4%) segments show agreements by the two methods ($P < 0.05$). On adding LDD to Thallium study, the num

ber of viable segments which could be detected by Thallium imaging increased to be 197 (61.6%) versus 178 (55.6%) segments which could be detected to be viable by LDD echocardiography i.e. Thallium become more sensitive in detection of viable myocardium than before. Furthermore the two methods were in detection of 168 viable segments (52.2%) and 113 non-viable segments (35.3%) i.e. 281/320 (87.8%) segments show agreement by the two methods ($P < 0.001$).

Conclusion: Although both Thallium scintigraphy and dobutamine echocardiography have nearly the same cost, the proportion of segments with preserved Thallium uptake (with low dose dobutamine) is greater than those showing a positive response to dobutamine Echocardiography and despite the difference is statistically insignificant, yet its is physically significant.

UTILITY OF PREOPERATIVE SERUM CARCINOEMBRYONIC ANTIGEN IN COLORECTAL CANCER PATIENTS

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Abstract

Background & Aim: The usefulness of preoperative Carcinoembryonic antigen (CEA) in colorectal cancer (CRC) remains unsettled as regards its role in management and follow up of CRC patients. Efficacy of basal CEA in the diagnosis, prognosis, follow up and therapy of CRC patients will be assessed in this study.

Patients & Methods: 200 CRC patients and 100 persons as a healthy control were included in the study. Basal CEA was done before resection. Postoperative Dukes' staging was adopted. Routine follow up and CEA estimation were done.

Results: The mean CEA in CRC patients ($17.3 \text{ ng}\% \pm 1.67$) was significantly higher than control ($3.41 \text{ ng}\% \pm 1.1$). A significant association between mean basal CEA and Dukes' classes was evident (it was 7.8, 12.7, 25.8 ng% for Dukes' A, B, C). The validity of basal CEA in primary CRC diagnosis was highly positive, with higher efficacy in advanced disease detection and negative exclusion power for DFS prediction. Basal CEA was a discriminant factor in prognosis. DFT & DFS were higher in patients with $\text{CEA} \leq 5 \text{ ng}\%$.

Conclusion: The preoperative CEA identifies subsets with favourable, indolent and uneven biological behaviour (≤ 5 , ≤ 15 , $> 15 \text{ ng}\%$). With conventional staging, it forms strong prognostic tool that supplies practice guideline for follow up and therapy.

Key words: Basal CEA, Colorectal cancer.

OPERATIVE TREATMENT OF DISPLACED INTRA-ARTICULAR FRACTURE CALCANEUS

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Abstract

Since July 2000, fifteen cases with displaced intra-articular fractures of the calcaneus had been treated by open reduction and internal fixation using AO calcaneal plate and screws. The objective was to evaluate the outcome of surgical fixation of the displaced intra-articular fractures of calcaneus. Using Sanders C.T. classification system, four cases were grouped as type II; nine as type III; and two as type IV. All the patients were reviewed at a minimum of 1 year. The functional results were evaluated using the Maryland foot score. The functional results were considered excellent in 5 cases (33.3%); good in 6 (40%); fair in 3 (20%); and poor in one case (6.7%). Postoperatively, the height and length of the calcaneal body returned in 100% of cases of group II; 78% of group III; and 50% of group IV. Complications included three cases with postoperative superficial infection; one, wound edge necrosis; one, had subtalar arthritis; and two, had a reflex sympathetic dystrophy. We concluded that operative fixation of displaced intra-articular fractures of the calcaneus by AO plate, restores the calcaneal height, allows early mobilization and weight-bearing, and maximizes the chances for good joint function.

SERUM LEPTIN LEVEL IN CHRONIC HEPATITIS

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Abstract

This study was planned to evaluate serum leptin levels in patients with chronic viral hepatitis or liver cirrhosis. The study included 80 patients with chronic viral hepatitis (chronic hepatitis C positive group (41 patients). 23 non-cirrhotic and 18 patients post HCV cirrhosis. Chronic hepatitis B patient (25 patients) 10 patients non-cirrhotic and 15 post HBV cirrhosis. Chronic hepatitis B & C virus positive group. (14 patients) 6 non-cirrhotic and 8 patients post HBV and HCV cirrhosis. 10 healthy subjects of matched age and sex as a control group. The study showed that serum leptin levels was significantly elevated with non-cirrhotic and cirrhotic cases (chronic hepatitis) than the control while the highest concentration being seen in cirrhotic patients. There was a non significant difference in serum leptin levels with the different etiology of non-cirrhotic chronic viral hepatitis. Serum leptin levels showed a non significant difference between different Child classes. Serum leptin levels are sex dependent, higher in females than males. Serum leptin levels correlated positively with (BMI), this correlation was significant in females while not significant in males. Serum leptin was correlated positively with serum bilirubin, on the other hand serum leptin levels was inversely correlated significantly with serum albumin but no correlation with SGPT or SGOT. It can be concluded that in the course of chronic viral liver disease, serum leptin levels may reflect the extent of liver dysfunction. Serum leptin levels is higher in patients with chronic hepatitis and is significantly increased in cirrhotic than non-cirrhotic and there is no correlation between BMI and its level.

SAFETY OF TRYPAN BLUE 0.1% AND GENTIAN VIOLET 0.001% STAINING OF THE ANTERIOR CAPSULE FOR CAPSULORHEXIS IN EYES WITH WHITE CATARACT

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Abstract

Purpose: To compare the safety and efficacy of trypan blue 0.1% and gentian violet 0.001% for anterior capsule staining in cases of white cataract.

Methods: Thirty eyes with age-related white cataract had anterior capsule staining with trypan blue 0.1% (15 eyes), and gentian violet 0.001% (15 eyes), under an air bubble followed by phacoemulsification with posterior chamber intraocular lens (PC IOL) implantation. The ease of creating a continuous curvilinear capsulorhexis (CCC) and intraoperative complications were noted. Postoperative examinations at 1day, 1week and 1month included visual acuity, anterior chamber reaction, and intraocular pressure (IOP) were documented. The mean phaco power and time were also recorded.

Results: Complete CCC was achieved in 24 eyes (80%), 6 eyes (20%) had extension of the capsulorhexis, thus the surgery was converted to conventional ECCE. All patients had a BCVA worse than 6/60 before surgery. One week after surgery, Twenty-three (76.7%) had a BCVA of 6/9 or better. Five eyes (16.7%) had a BCVA worse than 6/60 postoperatively. Examination of those eyes revealed preexisting posterior segment pathology. Two eyes (6.7%) had increased IOP, with the highest measured at 26mmHg postoperatively. Their BCVA were 6/24. These 2 eyes responded well to medication, and the IOP returned to normal by the second postoperative week. Almost all eyes achieved a BCVA of 6/9 from the first week postoperatively to the last follow-up. The side port and corneal tunnel were stained most intensely with gentian violet than trypan blue

groups. All eyes had clear corneas and a quiet anterior chamber 1 month after surgery. The mean phaco power and time were not significantly different between the 2 groups ($P=0.367$ and $P=0.12$, respectively).

Conclusion: Both trypan blue 0.1% and gentian violet 0.001% are safe and effective for staining and visualization of the anterior capsule during phacoemulsification of white cataract.

ANTEGRADE SCROTAL SCLEROTHERAPY FOR MEN WITH VARICOCELE

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Abstract

Objective: *Applying antegrade scrotal sclerotherapy (ASS) for men with varicocele.*

Subjects and Methods: *Sixty male patients (mean age 25.6 years) with different grade of primary varicocele underwent ASS. Either due to primary infertility, scrotal pain or discovered accidentally in adolescent during examination for unrelated causes. All patients were evaluated with complete clinical examination, colour Doppler ultrasonography of the spermatic cord and determine the degree of reflux. Semen analysis was done for patients presenting for infertility. Azospermia patients, patients with bilateral subclinical varicoceles were excluded from this study. ASS were done in all patients under local anesthesia.*

Results: *Only 10 patients required intraoperative sedation and one patient needed spinal anesthesia. No intraoperative complications were recorded, no allergy to contrast or the sclerosant occurred. Difficulties in vein catheterization was occurred in (5) patients whom retreated again (2) weeks after first trial. Unilateral ASS was done in 17 patients and take average 18-30 minutes and required 6-24 hours to be discharged from the hospital and 3-5 days to start his normal activities. Bilateral ASS was done in 43 patients and take average 32-60 minutes and discharged from the hospital after average 8-30 hours and return to normal activity 7-12 days later on.*

Scrotal hematoma was occurred early in 7 cases (11.7%) and persistent scrotal pain in one case (1.6%). As regard late complications no hydrocele, no testicular atrophy was occurred, but persistent reflux in 10 patients (16.7%) and occurred in high grade varicocele (26.6% in grade III and 17.6% in grade II). Semen analysis (6) months after ASS was done in 40 patients and showed increased mean sperm count from an mean initial value of 16.5×10^6 to mean 22.8×10^6 ml ($P = 0.05$) while mean motility increased from 20% to 38% ml ($P < 0.001$) and mean abnormal form de-

creased from 31% to 16% ($P < 0.001$) with highly significant relationship.

Conclusion: *Antegrade scrotal sclerotherapy can be done under local anesthesia so less preoperative investigation and low cost, can be done as outpatient procedure with short recovery time and also successful operation that improving sperm parameters occurred with few early and late complications.*

Key words: Varicocele, sclerotherapy, testicular atrophy.

TESTICULAR TORSION : A PERSPECTIVE FROM THE MIDDLE EAST

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Abstract

Objective: *To report our experience in the management of testicular torsion with emphasis on seasonal variation, salvage rate and the status of the torsted testis 3-6 months after orchidopexy.*

Subjects and Methods: *Sixty patients with a presumptive diagnosis of testicular torsion, who presented to urology department in Armed Forces hospital in Kuwait between January 2000 and December 2003 were included in the study. Following scrotal exploration, 52 patients were found to have testicular torsion. Of these patients, 8 with non viable testes underwent orchidectomy, while 44 with viable testes underwent orchidopexy. Both groups of patients had simultaneous contralateral orchidopexy. Patients who had orchidopexy were followed up monthly for 3-6 months by testicular ultrasound to assess the volume of the affected testis.*

Results: *52 patients were confirmed to have testicular torsion. The average number of new cases in the winter was (6.7) compared to (4) in the summer. Forty four patients underwent orchidopexy to give an operative salvage rate of (44/52) 84.6%. Of 44 patients in whom the duration of torsion was less than 24 hours, 1 (2.3%) had a non-viable testis, whereas of 8 patients in whom the duration of torsion was more than 24 hour, 7 (87.5%) had a non-viable testis. Patients who had orchidopexy were followed up monthly for 3-6 months after a minimum follow up of 3 months 6 patients (13.6%) developed testicular atrophy.*

Conclusion: *The highest incidence of testicular torsion was during the cold season. The outcome of surgical management of testicular torsion was dependent on the duration of torsion and degree of spermatic cord torsion.*

THE FEASIBILITY AND SAFETY OF DELIVERING MODIFIED INFANT FLOW DRIVER NASAL CPAP DURING INTER-HOSPITAL TRANSPORT

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Abstract

Objective: Respiratory failure is a common cause for paediatric intensive care admission, especially during the winter season of bronchiolitis. It is possible that, if a safe and consistently effective method of delivering nasal CPAP (nCPAP) was available, some of these infants could be transported to a tertiary unit on this modality. The Infant Flow Driver (IFD) has been shown to be a safe and effective means of delivering nCPAP in hospital. The aim of this study was to demonstrate the feasibility, safety and efficacy of using a modified IFD that could be used to transport infants with bronchiolitis-associated respiratory failure.

Design: Prospective, observational study.

Setting: A specialised paediatric transport service and associated tertiary paediatric intensive care unit in London, UK.

Interventions: IFD modified for patient transport

Methods: Study period: October to February during three consecutive years. IFD CPAP was initiated by the transport team, on the basis of a clinical decision, at the referring hospital. Feasibility, safety and efficacy of transporting infants on the modified IFD were examined.

Results: Twenty two infants were transported on 23 transfers. There were no failures of transport on IFD CPAP. No adverse events were noted on any of the transfers. The IFD was efficacious: it significantly improved key indicators of respiratory status.

Conclusions: The modified IFD for transport is safe and effective; it is feasible to transport infants successfully with this modality. Further controlled studies may be able to examine a potential reduction in intubated transfers in this subset of patients.

EVENING VERSUS MORNING ADMINISTRATION OF STATINS (RANDOMIZED CLINICAL STUDY)

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Abstract

Cardioulascular disease is a leading cause of morbidity and mortality in the industrialised world. Observational studies have demonstrated a clear link between elevated serum low density lipoprotein (LDL) cholesterol contrations and coronary heart disease, making hyperlipidaemia a significant modifiable risk factor that can be targeted. Statins reduce cellular cholesterol synthesis and rapidly became popular for the primary and secondary prevention of coronary artery disease because they cause larger clinically significant reductions in cholesterol levels, with few serious adverse effects, and are well tolerated by patients. Most manufacturers of statins recommend that they are taken at night, on the basis of physiological studies which shoiu that most cholesterol is synthesized when dietary intake is at its lowest. Moreover, many patients also receive treatment with other cardioprotective drugs at night and compliance may be compromised by multiple dosing. The aim of this study was to determine wheather administration of atorvastatin in the morning had significant erent efficacy from its adminstratfon in the euening. This study was done on forty patients of both sex of age range 44-72 years. Patients were randomised on either 10 or 20 mg/day of atorvasatin in the morning or in the evening for six weeks each. Neither sex nor daily doses variation (10 or 20 mg/day) produced significant changes in lipid profiles between and follow up data in all groups. Switching dosing atorvastatin from in the morning to in the evening the resulted in statistically significant decrease in total cholesterol, LDL cholesterol and triglyceride and non-significant increase in HDL cholesterol value.

**COMPARATIVE STUDY OF THE ANTIFIBROTIC
EFFECT OF HALOFUGINONE WITH THAT OF
SOME POTENTIALLY ANTIFIBROTIC
DRUGS ON RAT LIVER FIBROSIS
INDUCED BY CCL4**

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Abstract

Abnormal deposition of the extracellular matrix is the hallmark of liver fibrosis and cirrhosis. In fibrosis, the quantity of most extracellular matrix molecules, the fibrillar collagen, increase dramatically with types I and III representing between 80 and 90 per cent of collagens, both in normal and fibrotic liver. Halofuginone (HAL) is a coccidiostat, which has recently evidenced to inhibit collagen synthesis by fibrogenic cells in vivo and in vitro. In this study, we have investigated the antifibrotic effect of HAL on liver fibrogenesis in two separate experiment. The first experiment was conducted in vivo where liver fibrosis was induced in rats by oral administration of carbon tetrachloride (CCl4), The second experiment was conducted in vitro where the drugs were examined on its ability to inhibit collagen type I or III α -chains synthesis by the principle four types of liver cells; hepatocytes (HCs), liver endothelial cells (LECs), Kupffer cells (KCs), and hepatic stellate cells (HSCs). Measurement of collagen α -chains was done by SDS-PAGE and computer-assisted densitometry. The anticipated antifibrogenic effect of HAL was matched to that of some other drugs evidenced in recent work to have antifibrogenic effects in some models of liver fibrosis namely, colchicine (COL), silymarin (SIL), pentoxifylline (PTX), and prednisolone (PDN). Validation of the in vivo results was based on four reliable parameters included (i) scoring the histopathological lesions

in the livers; (ii) digital image analysis of liver fibrosis in the stained liver sections through the recent digital image analysis technique; (iii) measurement of the aminoterminal propeptide of type III procollagen (PIIINP) in serum, and (iv) measurement of serum alanine aminotransferase enzyme (ALT). It was shown that all the five drugs have considerably reduced liver necroinflammatory reaction and fibrosis with variable degree of success, while they differed markedly in their effect on two serological markers; one for active hepatic fibrogenesis, the PIIINP, and the other for parenchymal cell integrity, the ALT. In vitro, HAL reduced only synthesis of collagen type I constituent chains, $\alpha 1(I)$ and $\alpha 2(I)$, while did not affect $\alpha 1(III)$ chain synthesis by cultured HCs, LECs and HSCs. It could not be examined on collagen synthesis by KCs because we were not able to detect any collagen synthesized by it in vitro. However, an extensive work has to be conducted to find out drugs that are capable of preventing or treating liver fibrosis and to elucidate its exact mechanism of action in each type of liver pathology.

Key words: liver fibrosis; carbon tetrachloride; HAL; digital image analysis; procollagen III, collagen, electrophoresis.

SONOHYSTEROGRAPHY IN EVALUATION OF UTERINE FACTORS IN RECURRENT MISCARRIAGE

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Abstract

Objective. To determine the value of sonohysterography in detection of uterine factors in recurrent miscarriage. Setting. The study was done at El-Hussein hospital in ultrasound unit out patient clinic. Patients and methods. ? A total of 30 women had sonohysterography in investigation of recurrent miscarriage between June 2003 to April 2004. The age ranged from 24-40 years (mean 32.6 ± 3.6). The number of miscarriages ranged from 3-10. The sonohysterography was done (during proliferative phase of menstrual cycle) between day 5 (immediate postmenstrual) and day 12 of the menstrual cycle. Results . Uterine factors in recurrent miscarriage accounted for 33.3% cases for example endometrial polyp (6.7%), submucous fibroid (3.3%), intramural fibroid with mucosal extension (3.3%), septate uterus (3.3%), cervical incompetence (10%), bicornuate uterus (3.3%), intrauterine adhesions (3.3%).

Conclusion .In women with recurrent miscarriage sonohysterography is simple procedure done in out patients clinic where transvaginal ultrasound service is available , we recommend to include this procedure in the investigation of uterine factors in recurrent miscarriage .

**RELATIONSHIP BETWEEN
MICROALBUMINURIA AND SUBCLINICAL
CARDIAC STRUCTURAL CHANGES IN ISOLATED
SYSTOLIC HYPERTENSION IN
ELDERLY PATIENTS**

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Abstract

Isolated systolic hypertension is common in elderly people and accounts for more than 50% of all cases with hypertension above the age of 65 years. Microalbuminuria represents an early marker of cardiac structural damage. The aim of this work: is to study the relationship between micro albuminuria and subclinical cardiac structural changes [septal wall thickness (SWT), left ventricular mass (LVM) and left ventricular mass index (LVMI)] in isolated systolic hypertension in elderly patients. Result: showed significant positive correlation between microalbuminuria and cardiac structural changes (LVMI - $P = 0.001$, SWT - $P = 0.002$ and LVM - $P = 0.0001$). There was a significant positive correlation between the duration of hypertension and microalbuminuria, LVM ($P=0.02$) and LVH ($P=0.001$). Also, there was a significant positive correlation between age of patients and LVM ($P = 0.01$) and LVH ($P = 0.01$). Conclusion: Taken together this study showed that microalbuminuria represents an early marker of cardiac structural changes in isolated systolic hypertension in elderly patients. It is considered one of the new associated risk factors of hypertension. Cardiovascular prognosis depends not only on the blood pressure level but also on the presence of target organ dam-

El-Metwally El-Shahawy, et al....

age. So we recommend early detection of microalbuminuria in every hypertensive patient as it is an early sign of endothelial dysfunction and damaged blood vessels.

EFFECT OF PHAKIC IOL ON CONTRAST SENSITIVITY, IOP & CORNEAL ENDOTHELIUM

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Abstract

Aim: *to evaluate angle-supported AC Phakic IOLs for correction of high myopia; as regards contrast sensitivity testing, IOP, and corneal endothelial count.*

Methods: *Twenty eyes of eleven patients with high myopia were enrolled in this study. Three patients were males and eight were females. Their age ranged from between 20 to 36 years with a mean of 26.36 ± 5.14 . A complete preoperative ocular examination was performed on each patient including; IOP measurement, Specular microscopy & Contrast sensitivity testing. The Safety Flex Phakic 6TM was used in this study. Follow-up examinations were made at 48 hours; 15 days; 1, 2, 3 and 6 months after surgery.*

Results: *The preoperative refractive error ranged from -10.50D to -24.00D with a mean of $-18.03 \pm 3.92D$. The IOL was implanted in both eyes of 9 patients and in one eye of two patients. The preoperative mean endothelial cell density was 2863.10 ± 412.00 cells/mm². After surgery; the mean cell density decreased to a mean of 2764.85 ± 400.90 cells/mm² at 3-months and 2739.85 ± 406.38 cells/mm² at 6-months. Endothelial cell loss was 3.43% at 3-months and 4.3% at 6-months in comparison with the preoperative value. The preoperative mean IOP was 12.60 ± 1.57 mm Hg; which increased to 15.75 ± 5.01 at 2 weeks post-op. However the IOP decreased again to a mean of 13.20 ± 1.96 mm Hg 6-month after surgery. Contrast sensitivity was measured to all patients using Cambridge low contrast gratings. Preoperatively, the mean contrast sensitivity was 142.25 ± 70.60 . After surgery, contrast sensitivity improved to a mean of*

209.60±117.45.

Summary: *Implantation of an AC-IOL in a phakic eye to correct high myopia is a technique recently revived. It represents the most satisfactory surgical procedure currently available for correcting high myopia. The simplicity and the reversibility of the method permit it to be performed by most ophthalmologists.*