

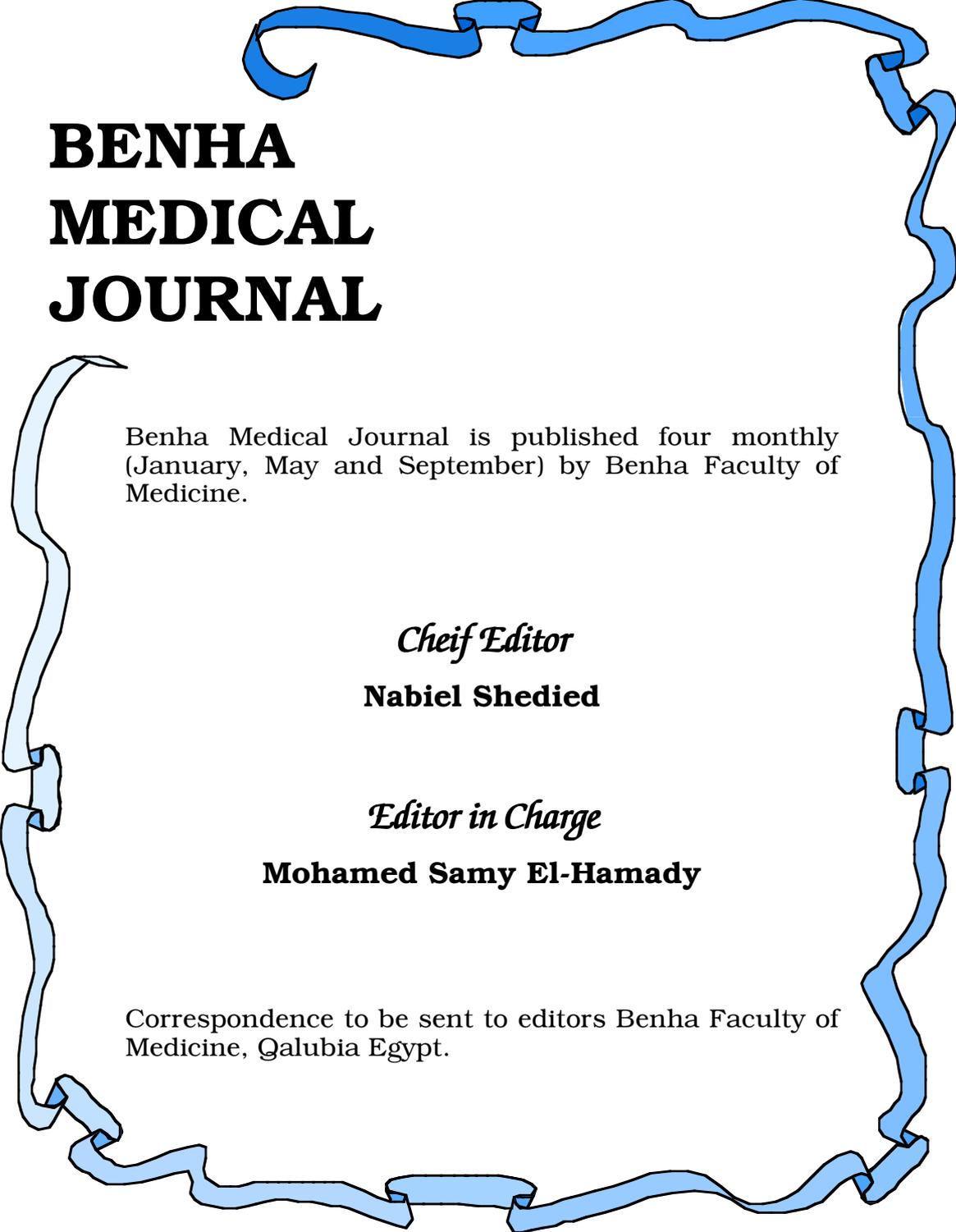
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**THE ROLE OF NITRIC OXIDE IN
MICROANGIOPATHIC COMPLICATIONS OF
DIABETES MELLITUS IN COMPARISON WITH
PLASMA THROMBOMODULIN AND VON
WILLEBRAND FACTOR**

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Abstract

Vascular complications are the major causes of morbidity and mortality in diabetic patients. The vascular endothelial cell damage has been suggested to be the first event in diabetic vascular disease.

Aim of the Work: *The present study is to assess the role of nitric oxide in the development of microangiopathy in patients with diabetes mellitus in comparison to plasma thrombomodulin and von Willebrand factor.*

Patients and Methods: *Forty five diabetic patients were classified into three groups: 15 patients in each one. Group I, patients with type 1 and type 2 diabetes without diabetic nephropathy (UAE <30 mg 24/hr), group II, type 1 diabetic patients with nephropathy (UAE> 30 mg/ 24 hr), group III; type 2 diabetic patients with nephropathy (UAE> 30 mg/24hr). Fifteen normal subjects were included as a control group.*

All patients and controls subjected to : thorough history taking and clinical examination; routine laboratory investigations (fasting and post-prandial blood glucose, glycosylated hemoglobin (HbA1c), complete blood count, urine analysis, urine culture, blood urea, serum creatinine; specific laboratory investigations (UAE, pTM, vWF and both plasma and urine nitrite); fundus examination and fluorescein angiography for diabetic retinopathy.

Results : *The results of the study showed a significant correlation be-*

tween blood pressure, HbA1c and impaired renal function in one hand and endothelial dysfunction estimated by, pTM, vWF and microalbuminuria. There was significant positive correlation between UAE and both pTM and vWF, while significant negative correlation was found between UAE and both plasma and urine nitrite in group II and III. pTM and vWF were significantly increased in all diabetic patients compared to control group, Also they were significantly increased in complicated diabetic patients (group II and III) compared to group I. pTM and vWF factors in group II and III showed negative correlation with both plasma and urine nitrite. Plasma and urine nitrite levels were significantly increased in all diabetic patients in comparison to control group, while they were significantly decreased in complicated diabetic groups (II and III) in comparison to non-complicated diabetic patients (group I). Fundus examination and fluorescein angiography revealed that 40% of the patients in group II had NPDR while 60% had PDR. In group III 46.67% had NPDR and 53.33% had PDR. No patients in group I had diabetic retinopathy.

Conclusion: we can concluded that, plasma thrombomodulin, von Willebrand factor and nitric oxide may serve as markers for endothelial damage in diabetic patients . Also, the initial phase of endothelial cell dysfunction in diabetes mellitus is linked to decreased nitric oxide bioavailability, that may lead to atherogenic changes in the vascular wall.

SERUM SOLUBLE INTERLEUKIN-2 RECEPTORS ALPHA IN SYSTEMIC LUPUS ERYTHEMATOSUS

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Abstract

Abstract: The aim of this study is to determine the level of circulating soluble interleukin-2R α in the sera of patient with systemic lupus erythematosus (SLE) and to correlate the level of expression of these receptors with SLE disease activity. The study included fifty five SLE patients and twenty healthy volunteers as controls. The following investigations were done: Serum anti-nuclear antibodies (ANA), anti-double stranded deoxynucleic acid (ds-DNA), serum complement components (C3,C4), ESR, complete blood count, serum creatinine, creatinine clearance, 24 hour urine proteins, urinalysis and serum soluble interleukin-2R α level. Renal biopsy was performed and examined with light microscopy for patients with lupus nephritis. The results were analyzed in relation to the clinical activity scores (systemic lupus activity measures [SLAM]). The study showed that levels of soluble interleukin-2R α (sIL-2R α) were significantly higher in the total group of SLE patients compared to controls. Dividing our patients into two groups according to the presence or absence of lupus nephritis (LN), 35 patients were found to have laboratory and pathologic evidence of LN. Serum sIL-2R α levels were significantly higher in patients with nephritis than those without nephritis. There were strong positive correlation between sIL-2R α levels and SLAM score, histological activity index, ESR and 24hr urine proteins, on the other arm strong inverse correlation with C3 and packed cell volume was observed. It can be concluded that serum sIL-2R α is a reliable marker of disease activity in patients with SLE and could be used as an indicator of early renal involvement with the possibility of using it for follow up.

Key words: SLE, soluble interleukin-2R α

**COMPARISON BETWEEN TWO METHODS
OF ASSESSMENT OF HYPERNASALITY
IN VELOPHARYNGEAL
INCOMPETENCE PATIENTS**

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Abstract

Velopharyngeal incompetence (VPI) is a condition that causes hypernasal resonance distortion and nasal emission distortion during speech. The nasometer is one of the acoustic methods that has been used for years for determining hypernasality. In this study, the role of the acoustic analysis of vowel formants in diagnosing and determining the degree of hypernasality in VPI patients was evaluated and compared with that of nasometry. Fifty subjects were assessed with both techniques and the results were correlated with the auditory perceptual assessment of their speech. The study concluded that both techniques may be considered equally sensitive to diagnose and determine the degree of hypernasal speech.

Key words: hypernasality, velopharyngeal incompetence, nasometer, formant analysis

MODIFIED SURGICAL TECHNIQUE FOR TREATMENT OF HIGH-GRADE GYNECOMASTIA: A PRELIMINARY STUDY

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Abstract

This study was designed to evaluate the outcome of a modified surgical approach for management of Simon's II and III gynecomastia. Fourteen patients with idiopathic gynecomastia (9 unilateral and 5 bilateral) were enrolled in the study. A preareolar incision was performed at the upper half of the areolar-cutaneous line, then another curved incision was made cephalad to the first incision and was extended so as both ends of both incision met and thus giving a picture of an elliptical incision with the width of the ellipse varied according to the surface area of skin determined, preoperatively, to be excised. All fibrofatty tissue was dissected and excised and surgical field was drained. The surgical procedure was completed straightforward without intraoperative problems with a mean duration of surgery being 35 for unilateral and 56 minutes for bilateral cases. Suction drains were removed after 4-5 days in most patients. One month after surgery, all patients had achieved a good aesthetic contour of the chest and were satisfied, but as regards wound appearance, 3 patients were partially satisfied; 2 patients had excess wound edge (dog-ear) that re-corrected under local anesthesia and one patient has bilaterally corrugated scar, and only one patient was unsatisfied by the color of the areola and nipple. It could be concluded that the use of a semicircular incision placed at the upper areolar-cutaneous junction combined with a cephalad positioned curved incision is a good approach for the treatment of high-grade gynecomastia allowed excellent access for glandular excision with preservation of quite sufficient blood supply to the nipple-areola complex, with unapparent preareolar scar and symmetrical non-ptosed areola or nipple.

**DIAGNOSTIC ACCURACY OF COMBINED
CLINICAL, ULTRASONOGRAPHY AND FINE
NEEDLE ASPIRATION CYTOLOGY FOR
THYROID SWELLING ASSESSMENT**

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Abstract

The present study was designed to evaluate applicability of combination of clinical examination, neck conventional ultrasonography (US) and US-guided fine needle aspiration cytology (FNAC) as a strategy for assessment of thyroid swellings and differentiating between malignant and benign thyroid lesions. The study included 50 patients (5 males and 45 females with a mean age of 37.1 ± 6.9 years) with nodular thyroid swelling. All patients underwent complete history taking, full clinical examination, neck US and US-guided FNAC. All patients underwent thyroidectomy and excised specimens were examined histopathologically. All patients passed smooth intra- and postoperative course apart from 4 cases that developed postoperative hematoma collection, one of them required evacuation. Histopathological examination defined 5 (10%) papillary and one (2%) follicular carcinoma and 44 (88%) benign nodules. Clinical examination detected 14 patients (28%) with criteria of suspicious malignancy while the other 36 patients showed no criteria of suspicious malignancy. Clinical diagnosis could define malignant thyroid lesions with sensitivity 66.7%, specificity 77.3% and accuracy 76%. The receiver operating characteristic (ROC) curve analysis for the diagnostic yield of clinical findings for differentiating between malignant and benign thyroid lesion as judged by the area under the curve (AUC) showed $AUC=0.652$. Conventional US diagnosis depending on US signs of malignancy revealed that 2 malignant lesions were solid, hypoechoic nodules with blurred margins, no halo sign and with fine calcification, another 2 malignant nodules were solid, isoechoic nodules with blurred margins, no halo sign and with coarse calcification, whereas the remaining 2 malignant

nodules were solid, hypoechoic nodules with well-defined margins, present halo sign and with coarse calcification, ROC curve analysis for the diagnostic yield of each US finding separately showed that presence of fine calcification had the highest diagnostic yield (AUC=0.739), presence of blurred margin and absent halo sign (AUC=0.72), internal echogenicity (AUC=0.667) and echostructure (AUC=0.527). Fine needle aspiration was carried out successfully in 48 patients with a success rate of 96% and diagnosed 4 specimens as papillary carcinoma, 5 as follicular neoplasm and 39 specimens as hyperplastic nodules. FNAC could diagnose malignancy with sensitivity 83.3%, specificity 90.5% and accuracy rate of 89.6% and ROC curve analysis for the diagnostic yield of FNAC showed AUC=0.871. It could be concluded that the combined dependence on clinical judgment, the result of US-guided FNAC and the presence of blurred margin of the nodule associated with absence of Halo sign and micro-calcification using conventional neck US provided the most significant diagnostic yield for differentiating between malignant and benign thyroid lesions.

**SURGICAL IMPACT ON SERUM LEVELS OF
INSULIN-LIKE GROWTH FACTOR-1,
INSULIN-LIKE GROWTH FACTOR BINDING
PROTEIN-3 AND INTERLEUKIN-6 IN PATIENTS
UNDERGOING LAPAROSCOPIC
CHOLECYSTECTOMY: A COMPARATIVE
STUDY VERSUS OPEN CHOLECYSTECTOMY**

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Abstract

This study aimed at estimation of serum levels of insulin-like growth factor-1 (IGF-1), insulin-like growth factor binding protein-3 (IGFBP-3) and interleukin-6 (IL-6) in patients undergoing open (OC) or laparoscopic (LC) cholecystectomy so as to evaluate the impact of surgical procedure on their serum levels. The study comprised 30 patients (7 males & 23 females) assigned to undergo cholecystectomy for calcular cholecystitis. Laparoscopic cholecystectomy was performed according to the European "four-puncture" technique Blood samples were taken preoperatively and one (POD1) and 2 (POD2) days after surgery for determination of complete blood picture and estimation of serum IGF-1, IGFBP-3 and IL-6. The mean operative time was non-significantly prolonged in LC group, while, the mean wound length and duration of postoperative hospital stay were significantly ($p<0.05$) decreased in LC compared to OC group. Total leucocytic count (TLC) and the percentage of neutrophils showed progressive increase in both groups at POD1 and POD2 compared to preoperative counts; leucocytosis and neutrophilia were significant ($p<0.05$) at POD2 compared to levels estimated at POD1 in OC group but were non-significant in LC group and were significantly ($p<0.05$) higher in OC group compared to LC group at both POD1 and POD2. Serum IGF-1 was

significantly ($p < 0.05$) decreased in both groups at both POD1 and POD2 in comparison to preoperative levels, with a significant ($p < 0.05$) increase at POD2 compared to levels estimated at POD1 in LC group, while the difference was non-significant ($p > 0.05$) in OC group. Moreover, serum IGF-1 was significantly ($p < 0.05$) higher in LC compared to OC group at both POD1 and POD2. Serum IGFBP-3 was decreased significantly ($p < 0.05$) in OC group and non-significantly ($p > 0.05$) in LC group in comparison to preoperative levels at both POD1 and POD2, with a significant ($p < 0.05$) decrease in OC group compared to LC group at both POD1 and POD2. Serum IGFBP-3 showed progressive decrease but with non-significant difference between its serum levels estimated at POD1 and POD2 in both groups. Serum IL-6 was increased significantly ($p < 0.05$) in both groups in comparison to preoperative levels at both POD1 and POD2, with a significant ($p < 0.05$) increase in OC compared to LC group at both POD1 and POD2. Serum IL-6 showed progressive increase but with non-significant difference between its serum levels estimated at POD1 and POD2 in both groups. There was a positive significant correlation between serum IL-6 and percentage of neutrophils at POD1 in both groups and a positive correlation with percentage of neutrophils at POD2 that was significant in OC group but was non-significant in LC group. Moreover, serum IL-6 levels showed a negative correlation with serum IGFBP-3 at both POD1 and POD2 that correlation was significant in OC and non-significant in LC group. It could be concluded surgery induces postoperative increased serum levels of IL-6 associated with decreased levels IGF-1 and IGFBP-3, such effect was minimized in patients underwent laparoscopic surgery and explain the shortened postoperative catabolic stage.

EASIBILITY OF COMBINED LAPAROSCOPIC CHOLECYSTECTOMY AND ANTI-REFLUX SURGERY: EVALUATION AND OUTCOME

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Abstract

This study was designed to evaluate the outcome of combined laparoscopic cholecystectomy and fundoplication during one single laparoscopic procedure. The study included only patients assigned to undergo cholecystectomy for calculous cholecystitis and had symptomatic gastroesophageal reflux disease (GERD). 22 patients (7 males & 15 females) were enrolled in the study. All patients underwent clinical history taking including duration of symptoms, physical examination and upper gastrointestinal endoscopy. Esophageal manometry was performed preoperatively and 2 and 6 months after surgery. Laparoscopic procedures were performed through 5-port access. Operative time and the frequency of conversion to open surgery, time till initiation of oral intake, postoperative hospital stay and complications and time to recover full activity were recorded. Through a monthly visit for 6 months after surgery, patients were monitored for the extent of resolution of GERD-related symptoms. There was a significant increase ($p < 0.001$) of postoperative lower esophageal sphincter (LES) pressure compared to preoperative pressure with a non-significant difference between pressures estimated at 2 and 6 months. No intraoperative complications were encountered and there was no need for conversion to open surgery in any case. The mean operative time was 78.3 ± 9.7 ; range; 60-90 minutes. All patients tolerated oral ingestions after the first 48 hours. The mean duration of postoperative hospital stay was 4 ± 0.8 ; range; 3-5 days and 9 patients (40.9%) were discharged on

the 3rd postoperative day. The mean. duration, till resumption of full daily activities was 11.6 ± 1.4 (10-14) days. Clinically, a marked resolution of symptoms due to reflux was observed, only one patient developed dysphagia for solid food and a sensation of trapped air occurred in two patients causing discomfort, however, these three patients were asymptomatic at 6 months after the surgery. It could be concluded that combined laparoscopic surgery for cholelithiasis and GERD is an appropriate procedure, when indicated, giving excellent short-term outcome results and could be managed during one single laparoscopic procedure.

DIAGNOSTIC VALUE OF ARTERIAL OXYGEN TENSION, ALVEOLO-ARTERIAL OXYGEN GRADIENT AND RIGHT-TO-LEFT SHUNT FRACTION IN PULMONARY EMBOLISM

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Abstract

Pulmonary embolism is a common clinical disorder that is associated with high morbidity and mortality if untreated. The diagnosis of pulmonary embolism is difficult because the clinical presentation is non-specific and all of the objective tests have limitations.

The aim of this study was to evaluate the utility of the arterial partial pressure of oxygen, alveolo-arterial oxygen gradient and right to left shunt fraction as screening tests in the diagnosis of acute pulmonary embolism and to set an equation including the three variables with a more better clinical probability.

Eighty patients presented with clinical suspicion of pulmonary embolism were studied including 57 patients as a test group with objectively confirmed diagnosis and a control group of 23 patients with the diagnosis of pulmonary embolism excluded on confirmatory workup.

Arterial oxygen tension and alveolo-arterial oxygen gradient proved to have significant sensitivity and positive predictive value. The right to left shunt fraction has excellent sensitivity, positive predictive value and diagnostic likelihood ratio. However, the probability equation of $A-a X SH / PaO_2$ has the best of over all diagnostic values.

In conclusion, the probability equation suggested in the present study is a simple and accurate clinical screening test in cases with suspected PE. Compared to the other study parameters it has excellent diagnostic

values including sensitivity, specificity, positive predictive value, negative predictive value and diagnostic likelihood ratio. The value of PEQ defines the degree of severity of PE.

ONE-STAGE PRIMARY ILEO-COLIC OR ILEO-RECTAL ANASTOMOSIS. FOR ACUTE MALIGNANT LEFT COLONIC OBSTRUCTION

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Abstract

The aim of this study was to evaluate the immediate and short-term follow-up results of one-stage subtotal or total colectomy and anastomosis for patients with malignant left colon obstruction. The study comprised 21 patients (10 males and 11 females) with age range of 36-81 years; presented by acute large bowel obstruction with clinical and radiological evidence of obstruction. The choice of the extent of resection was determined by the extent of fecal load, the presence of colonic perforation, serosal tears of the cecum and/or massive colonic distension with concomitant ischemia; the presence of these features in a hemodynamically stable patient favored subtotal or total colectomy and ileo-colic or ileo-rectal anastomosis. The site of obstruction was at the sigmoid colon in 9 patients (42.9%), rectosigmoid in 8 patients (38.1%), splenic flexure in 3 patients (14.3%) and descending colon in one patient (4.7%). Ileosigmoid anastomoses were done in 13 patients (61.9%) and 8 patients (38.1%) had ileorectal anastomoses. The mean operative time was 201 ± 33.2 ; range: 150-270 minutes, the mean operative blood loss was 683.3 ± 408.2 ; range: 250-1800 cc; 11 patients (45.8%) required blood transfusion with a mean number of blood bags used was 2.8 ± 1.2 ; 1-5 bags. Oral feeding was resumed after a mean period of 4.9 ± 0.9 ; range: 4-7 days and the mean postoperative hospital stay was 10 ± 2.2 ; range: 8-18 days. Overall, after 12-months follow-up only one patient had anastomotic line recurrence with a recurrence rate of 4.75%, one patients died of acute liver failure secondary to hepatic metastasis with mortality rate of 4.75% and 19 patients had follow-up free of morbidity with no local recur-

rence or metastasis and a follow-up free rate of 90.5%. Thus, it could be concluded that one-stage subtotal or total colectomy and ileo-colic or ileo-rectal anastomosis are safe procedure with satisfactory outcome for management of obstructing malignant lesions of the left colon.

**RHEUMATIC FEVER PROPHYLAXIS BY LONG
ACTING PENICILLIN: REEVALUATION OF
DIAGNOSIS AND REGIMEN**

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Abstract

Rheumatic fever is a great problem specially in developing countries including Egypt. Although the use of long acting penicillin (LPA) has been of great benefit for the prevention of its occurrence and recurrence, yet it has been not evaluate to the best of our knowledge in our area. The objective of the present study was to evaluate the diagnosis of rheumatic fever patients receiving LAP and to assess the effectiveness of different prophylaxis schedule. One hundred twenty four subjects previously diagnosed as rheumatic fever and maintained on LAP were followed for at least six months. In addition to routine clinical, laboratory and radiological assessment, ECG and echocardiography were done to all subjects. Rheumatic fever was documented in only 19% of the studied group of whom twenty two patients (92%) were proved by echocardiography to have rheumatic valve disease. Mitral regurge was the most common valve affection (58%). LAP injection given on two weeks interval has proved to be the more effective schedule than 3 or 4 weekly injection.

ISOLATED MITRAL VALVE PROLAPSE IN CHILDREN

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Abstract

In this study we tried to describe the clinical features of sixty six children, who were diagnosed by echocardiography as having MVP. We also tried to find out the associative skeletal deformities and to describe the associative echocardiographic abnormalities and the severity of cardiac affection by the prolapse. These features were compared with sixty two children of matched age and sex without MVP.

In this study female/ male ratio was 45/ 21. our patients had significantly higher length (p value = 0.035), lower weight (p value= 0.031) and lower BMI (p value= 0.032) than the control group. Thirty seven patients (56%) were asymptomatic and presented only with incidentally discovered murmur. Chest pain, palpitation, dyspnoea and fatigue were not common. The most common skeletal deformity in our patients was marfanoid appearance [Seven patients (10.6%)], while five patients (7.5%) had pectus excavatum. Most of our patients did not have any significant Chest roentgenogram or ECG findings. 2-D echocardiographic study showed that anterior mitral leaflet displacement is more common than posterior leaflet displacement. Anterior and posterior leaflets thickness is more than those of the children without MVP. There was no significant mitral annular calcification in our patients, only two patients (1%) had mild annular calcification. In most of the patients, the left atrial and left ventricular dimensions did not show any significant change from the control group. Also left ventricular function was normal in all patients (FS% mean value is 37 ± 0.4). The degree of mitral regurge was significantly higher in children with MVP than those without MVP (average percent jet area is $14.9\% \pm 0.2$).

We concluded that MVP is not a serious disease in children. The number of children having MVP is much more than those diagnosed because child with MVP is usually asymptomatic and is mostly presented when a cardiac murmur or click is incidentally discovered during routine medical examination. MVP is a disease of benign nature in children, and very rarely to be associated with major echocardiographic abnormalities or with complications.

REACHING GOOD CONTROL TARGETS IN KUWAITI DIABETIC PATIENT

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Abstract

Aim of the work: *The aim of this study is to determine the proportion of diabetic patients who reach target levels for blood glucose, blood pressure, serum lipids, body mass index, and all targets; and to identify any differences between Urban and Nomads, and between males and females.*

Methods: *A cross sectional study was conducted in order to determine the rates of reaching target levels for blood glucose, blood pressure, serum lipids and body mass index. DM was diagnosed according to the World Health Organization criteria. Target levels were in accordance with those of the American Diabetes Association guidelines.*

Results: *Greatest difficulty was found in reaching target levels for low-density lipoprotein and glycated hemoglobin. Target levels for blood pressure were harder to achieve for Urban than Nomads. Significantly, fewer females reached target levels for blood glucose, body mass index, low-density lipoprotein or all targets than males (both Urban and Nomads).*

Conclusion: *Considerable effort from both health care providers and diabetic patients is needed to achieve target levels. Efforts to improve compliance with the diet and drug regimens, and to identify and treat risk factors for each individual patient, are required.*

Keywords: Kuwaiti diabetic patients, achieve target levels.

NEUROPSYCHOLOGICAL FUNCTIONING AND HEALTH OF DENTISTS EXPOSED TO MERCURY

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Abstract

Objectives: To study if there is an effect of chronic exposure to mercury on health and cognitive functions of dentists and to study the effects.

Methods: A case control study of 90 male dentists were asked to complete a questionnaire that included items on handling of amalgam, symptoms experienced, possible influences on psychomotor function, and the 12 item general health questionnaire. Dentists were asked to complete a dental chart of their own mouths and to give samples of urine, hair, and nails for mercury analysis. Environmental measurements of mercury in dentists' surgeries were made and participants undertook a package of computerized psychomotor tests. Another 90 male control subjects underwent similar procedure, completing a questionnaire, having their amalgam surfaces counted, giving urine, hair, and nail samples and undergoing the psychomotor test package.

Results: Dentists had, on average, urinary mercury concentrations over four times that of control subjects. Dentists were significantly more likely than control subjects to have had disorders of the kidney and memory disturbance. These symptoms were not significantly associated with urinary mercury concentration. Differences were found between the psychomotor performance of dentists and controls, but there was no significant association between changes in psychomotor response and mercury concentrations in urine, hair, or nails.

Conclusions: Several differences in health and cognitive functioning between dentists and controls were found. These differences could not be directly attributed to their exposure to mercury. However, as similar health effects are known to be associated with mercury exposure, it would be appropriate to consider a system of health surveillance of dental staff with particular emphasis on symptoms associated with mercury toxicity where there is evidence of high levels of exposure to work environmental mercury.

Keywords: Dental surgeons; mercury; psychomotor function, Occupational Health Abbreviations: CDR, cognitive drug research; OES, occupational exposure standard

COMPARATIVE STUDY BETWEEN ADVICE & SUPPORT ONLY AND NICOTINE REPLACEMENT TREATMENT WITH ADVICE AND SUPPORT FOR SMOKER HOSPITIZED PATIENTS

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Abstract

Background: Smoking is a major public health issue. Smoking cessation is an important aspect of the treatment of many diseases. Nicotine replacement therapy (NRT) has been shown to increase cessation rates among healthy volunteers and in general practice, but it is not clear whether it has an effect in hospital patients.

Aim of the work: Is to investigate the difference of scsuus rate between advice and support only and combined NRT& advice and support in hospitalized patient

Methods: Patients referred by their hospital doctor to the smoking cessation clinic and who agreed to participate in the study were randomized to receive either NRT given as a nicotine patch daily and a nicotine gum on an as needed basis plus advice and support (AS+NRT), or to receive just advice and support (AS). Claims of smoking cessation were validated at 1 week, 3 months, 6 months, and 1 year by carbon monoxide (CO) breath testing.

Results: A total of 245 patients were randomized, 136 AS+NRT and 109 AS. There were no significant demographic differences between the two groups at baseline. At 1 year a total of 35/245 (14%) had sustained cessation confirmed by a CO breath test, 20/136 (15%) AS+NRT and 15/109 (14%) AS, $p=0.857$.

At 1 week,(74/136) 54% AS+NRT gave up smoking and (36/109) 33% AS ($p<0.001$). By 6 months there was no significant difference between the two groups (22/136 (16%) AS+NRT and (15/109 (14%) AS).

Conclusion: In hospital patients NRT, given as regular daily patches plus gum to be used as needed, did not add to the smoking cessation rate achieved at 1 year by regular advice and support, despite significantly increasing the cessation rate at 1 week.

**QUALITY ASSESSMENT OF MATERNAL
HEALTH SERVICES PROVIDED BY PRIMARY
HEALTH CARE FACILITIES IN
QALYOBIA GOVERNORATE**

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Abstract

This cross sectional study was conducted along a period of six months to assess the quality of maternal health services provided by primary health care (P.H.C) facilities at Qalyobia Governorate and to compare between the developed and the undeveloped facilities. All PHC facilities providing maternal health services in two convenient districts (Benha and kafr Shoker) in Qalyobia Governorate, were chosen to carry out the study. The quality was assessed by fulfillment of a standardized check list recommended by Ministry Of Health & Population (MOHP) guided with its categories, criteria and standards. Beside the assessment of the quality of the maternal health services (antenatal, natal and postnatal services) a number of general aspects have to be assessed as they are essential for the provision of any services; general resources, unit administration and lab. services. This study revealed that the majority of the PHC facilities at Benha and Kafr Shoker districts are developed ones and most of these facilities are rural ones. The majority of the developed facilities (80.77%) have fair and good Quality index (Q.I) grade of the general resources while the majority (73.33%) of the undeveloped facilities have poor Q.I. grade with statistically significant difference ($p < 0.05$). The majority (88.46%) of the developed PHC facilities and all the undeveloped facilities have poor QI grade of unit administration and lab. services with statistically non significant difference. All the facilities either developed or undeveloped at Benha and Kafr Shoker district provide poor grade antenatal

and post natal care services. The developed facilities have higher Q.I values of the general resources, unit administration, lab. services and ante-natal and postnatal services than the undeveloped facilities with statistically significant differences ($p < 0.05$). The undeveloped facilities showed higher non-compliance percentages with the criteria of the components of all the studied variables (general resources, unit administration, lab. services and ante natal & post natal services) than the developed ones. The differences were statistically significant ($p < 0.05$) only for the furniture of general resources, special resources & process of the lab services and the special resources of the antenatal and post natal services. An immediate program to improve the quality of the provided maternal health services in Qalyobia Governorate is highly recommended.

**IS THE LARYNGEAL MASK AIRWAY HAS A
ROLE IN LOW FLOW PRESSURE CONTROLLED
ANESTHESIA IN CHILDREN UNDERGOING
ELECTIVE ABDOMINAL SURGERY IN
COMPARISON WITH CUFFED,
OR UNCUFFED TRACHEAL TUBES.?**

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Abstract

Background: The use of low flow circle system necessitates a 'leak free' breathing system which is commonly achieved by using a cuffed tracheal tube (TT). We hypothesized that low flow circle system anesthesia can equally effectively be achieved by using the or laryngeal mask airwayway (LMA) in pediatric anesthesia.

Methods: Following local ethics committee approval of King Saud Teaching Hospital, we randomly recruited 45 pediatric patients scheduled for elective abdominal surgery under general anesthesia with mechanical ventilation, into three groups according to the type of used tracheal (TT) (Cuffed TT, uncuffed TT and LMA group, n=15). The size of the TT was determined by means of the formula $(age/4)+4.5$ for uncuffed and $(age/4) + 4$ for cuffed TT whereas the size of the LMA size was dependent on weight. Following induction of anesthesia and muscle paralysis patients were ventilated with pressure controlled ventilation through a pediatric circle system and the lowest fresh gas flow (FGF) determined.

Results: The FGF achieved were (median and range) 0.20 (0.2-0.25 L/min) for the LMA group, 0.20 (0.2-0.4 L/min) for the cuffed TT group and 1.15 (0.2-4.75 L/min) for the uncuffed group. The differences between the LMA and cuffed TT compared with the uncuffed TT were significant ($P < 0.0001$ and $P 0.0002$, respectively). The difference in FGF between LMA and cuffed TT was not significant.

Conclusion: We conclude that pressure controlled ventilation (PCV) using an LMA is an alternative to a cuffed TT during low flow circle system anesthesia in children. Low FGF is unlikely to be achieved consistently using an uncuffed TT because of a substantial leak.

IN LATE BELL'S PALSY, CAN WE ESTIMATE PROGNOSIS?

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Abstract

Our purpose is to investigate the electrophysiological characteristics of Bell's palsy and to obtain clues for estimating prognosis in the late period by using electronenrography (ENoG). Thirty patients were followed by ENoG over a period of three months. They were evaluated through the forty full score system and classified into three groups according to the degrees of facial nerve recovery. There were significant differences between ENoG results of each group in the time course between 1.5 and 3.0 months of onset. The effect of increasing intensity on the amplitude is the most valid parameter for follow-up prognostic estimation. We concluded that the amount of non-degenerated synchronous firing fibres can allow us to estimate prognosis of Bell's palsy, if we make serial tests.

DIAGNOSTIC CORRELATES IN FENESTRAL OTOSCLEROSIS

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Abstract

The goal of this study was to investigate the relationship between the pre-operative audiometric levels and CT findings, and the pathological changes observed during stapes surgery.

Thirty consecutive patients with clinical diagnosis of fenestral otosclerosis were evaluated with High-resolution computed tomography (CT) and audiological tests. Twenty-six were diagnosed as having this disorder by CT evidence of abnormal bony excrescence at the oval window. The diagnosis was made upon examination of 1 mm thick targeted sections obtained at 1-mm intervals in the semi-axial with 25° of forward tilting projection. Coronal section were also included.

A direct relationship was found between the size of the fenestral focus and the air-bone gap. However, the degree and extent of bony footplate ankylosis could not be reliably predicted by the size of the air-bone gap.

USERS' ASSESSMENT OF PRIMARY HEALTH CARE SERVICES IN OMAN: A QUALITY IMPROVEMENT TOOL

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Abstract

Background and Objectives: Patient satisfaction is an important outcome in patient care used increasingly as an indicator of quality of health care. The present work aimed to assess the quality improvement of primary health care (PHC) services in the Sultanate of Oman from the service users' perspectives and to determine the relationship between some medico-administrative and socio-demographic factors and users' ratings of the quality of services.

Subjects and Methods: The present study was conducted on users attending three primary health care centers selected randomly in North Sharqiya Region in Oman. Two satisfaction surveys were conducted. The first one (baseline) was conducted in 2004 followed by implementation of quality improvement activities in the selected centers. The second survey was conducted in 2005. Users were selected using systematic random sample (910 respondents). Data were collected by well trained independent members of community support groups by the interview technique using a questionnaire sheet adapted from WHO model sheet. The type of rating scale used was the 4 point quality scale (excellent, good, fair, poor).

Results: The overall satisfaction score improved significantly in 2nd survey compared to 1st survey (86.5 vs 81.3 %). A significant improvement in satisfaction scores were noticed in 2nd survey regarding accessibility of services, availability of supportive services, courtesy of staff, technical competence of staff, waiting times and cleanliness. Low satisfaction scores were reported regarding clinic hours in both surveys (74.1% and 79.8% respectively). Users who considered the health centers as the

usual source of care showed significantly higher score in 2nd survey. Females and unemployed users were more satisfied than males and employed ones. The satisfaction scores increased in 2nd survey regarding most categories of age groups and educational levels.

Conclusions: There are potential benefits in utilizing feedback from service users to inform current and future service provision. User satisfaction survey is becoming one of the main methods of assessing the quality of health care and used as a key indicator of health care quality improvement. This study calls for further research to define and measure patient perceptions of health care quality and to understand more fully what drives those perceptions.

Index Words: Quality, Primary health care, Assessment, User.

PERI-OPERATIVE MONITORING FOR MAJOR SURGERY, ARE THERE CLEAR GUIDELINES?

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Abstract

The Association of Anaesthetists of Great Britain and Ireland (AAGBI) guidelines although essential, are not detailed, especially regarding invasive monitoring and monitoring for major and/ or emergency surgery. This survey was aimed at establishing a perspective of relevant common practice and giving direction towards developing appropriate guidelines. A questionnaire was answered by 16 anaesthetists that analysed the anaesthetists' awareness of the AAGBI guidelines on monitoring, as well as their own practice with regard to monitoring.

The majority claimed familiarity with the AAGBI guidelines. 86.2% monitored urine output for major cases. Of those, 88.2% measured urine on an hourly basis intra-operatively. 55.5% indicated they would measure preoperative body temperature in major or emergency cases, while 5.5% would measure it routinely, and 22.2% would not measure it at all. Intra-operatively, only 1 anaesthetist (5.9%) would measure temperature routinely. Different indications were given for insertion of arterial and CVP lines, however these were not affected by ITU beds unavailability.

According to these surveyed anaesthetists, 19.5% of cases were done using CVP line without an arterial line. The majority (93.8%) of the anaesthetists had not inserted a Swan Ganz Catheter in the past one year. This was attributed to unfamiliarity by 31.3%, and absence of benefits by 66.6%, while none was waiting for evidence of benefit. No alternative to Swan Ganz Catheterisation was used according to the majority of answers, although 11.8% used Transoesophageal Echocardiography (T.O.E.) and 17.6% used L.I.D.C.O. Only 18.8% of anaesthetists had used an awareness monitor in the past, but not in WWGH. There was a big

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diversity in monitoring practice among different anaesthetists regarding invasive monitoring and monitoring for major surgery. This reflects the absence of clear guidelines and absence of clear benefits from some monitoring devices.

Key words; monitoring, anaesthesia, guidelines, AAGBI

BIOCHEMICAL MARKERS OF FIBROGENESIS IN PEDIATRIC CHRONIC LIVER DISEASES

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Abstract

Objectives: Non-invasive diagnosis of hepatic fibrosis has become the focus, especially in the surveillance of treatment and in screening hepatic fibrosis. To investigate the clinical usefulness of fibrogenesis markers in evaluating liver fibrosis, we determined serum levels of TGF- β 1, collagen IV, and laminin., and their relationships with frequently used liver function tests, and findings of liver ultrasonography and liver biopsy were investigated. Methods: 50 patients with chronic liver diseases were enrolled from the National Liver Institute, Menoufiya University. Serum markers of fibrosis, liver function indices (for the patients and 30 controls), and ultrasonography for all patients were performed and compared with histologic fibrotic changes. Results: Serum levels of TGF- β 1, collagen IV, and laminin were significantly higher in patients than those in control ($P < 0.000$). The levels of serum fibrosis markers were not correlated with fibrotic scores ($P > 0.05$), but laminin was positively correlated to histologic activity index. There were no significant changes in the level of serum fibrosis markers related to ultrasonographic findings. Their levels were also not correlated to ALT or AST. The cut-off values, specificity and sensitivity were determined for all markers, among which collagen IV was the marker with the highest sensitivity and specificity. Conclusion: Serum level of TGF- β 1, collagen IV, and laminin can be used as indices for the diagnosis of hepatic fibrosis. Among them, collagen IV is more sensitive.

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Biochemical markers of fibrogenesis might be useful in regular monitoring of disease development and treatment effectiveness and should be inseparable part of progression assessment in all chronic hepatopathies.

Key words: TGF- β 1 - collagen IV - laminin - bilharziasis- hepatitis-grading and staging.

RESULTS OF ONE STAGE MULTISITE SOFT TISSUE OPERATIVE PROCEDURES IN SPASTIC CEREBRAL PALSY

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Abstract

Abstract: The purpose of this study is to evaluate the treatment outcome of one stage multisite soft tissue operative procedures in patient with spastic Cerebral Palsy. Multisite simultaneous tendon surgery provides improvement in gait by addressing hip, knee, and ankle contractures together.

Surgery was performed on 52 children with the diplegic and hemiplegic type of cerebral palsy. Multiple soft tissue procedures were performed (mean 4.3 procedures) according to criteria defined on the basis of physical examination and observational gait analysis. The mean age at surgery was 6.5 years (3 to 13) and mean follow up period 34.9 month range.

Careful preoperative physical examination is required. Shorter periods of immobilization and aggressive postoperative gait training and strengthening may optimize improvements in gait.

Our results showed full benefit of surgery is obtained only when all contractures of hip, knee and ankle have been corrected. The range of motion of all the operated joints improved postoperatively, resulting in significant improvements in posture, sitting, gait, and hygiene of the patients. This approach also is effective, producing less morbidity than staged surgery and offers the advantage that only one period of rehabilitation is required. And aggressive postoperative gait training and strengthening may optimize improvements in gait.

SIGNIFICANCE OF TOLL-LIKE RECEPTORS 2 AND 4 mRNA EXPRESSION IN CHRONIC HEPATITIS C VIRUS INFECTION

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Abstract

Hepatitis C virus (HCV) induces inflammatory signals leading to progressive liver damage. The mechanism of HCV involvement in the host's innate immune responses has not been well characterized and little is known about the molecular mechanisms by which immune cells recognize HCV. In this work we studied Toll-like receptor (TLR) 2 and TLR4, in chronic HCV infection, as recently identified important components of the innate immunity in humans, as microbial recognition receptors. The study involved 30 HCV patients; 15 with chronic hepatitis (group I) and 15 with liver cirrhosis (group II), in addition to 10 healthy controls (group III). mRNA expression of TLR2 and TLR4 in peripheral blood mononuclear cells (PBMCs) was examined using reverse transcriptase PCR. This in relation to quantitative analysis of HCV-RNA by Real time-PCR and serum tumor necrosis factor- α (TNF- α) estimation by ELISA. Significant correlation was found, in HCV patients, between the viral load and TLR2 ($r=0.704$; $p<0.01$ in group I & $r =0.629$; $p <0.05$ in group II) and TLR4 ($r=0.549$; $p <0.05$ in group I & $r =0.596$; $p <0.05$ in group II) and between TLR2 and TLR4 ($r=0.814$; $p < 0.001$ in group I & $r =0.699$ $p < 0.01$ in group II). Overexpression of TLR2 and TLR4 was detected in chronic hepatitis patients as compared to controls ($p < 0.001$). In cirrhotic patients down regulation of TLR4 mRNA expression was found as compared to group I chronic hepatitis ($p < 0.001$), while TLR2 showed a steady overexpression. A positive correlation was also detected between TLR2 expression and TNF- α in HCV patients ($r=0.571$; $p <0.05$ in group I & $r = 0.723$; $p < 0.01$ in group II), while a weak relationship was found between TLR4

and TNF- α in cirrhotic patients. ($r = 0.359$; $P > 0.05$). TLR2 correlated significantly with the hepatic necroinflammatory activity grade ($r = 0.629$; $P < 0.05$ in group I & $r = 0.502$; $p < 0.05$ in group II), while TLR4 correlated with the fibrosis stage ($r = 0.682$; $P < 0.01$). On the other hand no correlation could be detected between TLR2 and TLR4 and the child's grade in cirrhotic patients. It is concluded that TLR2 and TLR4 may play a vital role in HCV recognition and suggested to be involved in the initiation and progression of HCV induced liver diseases. Advanced molecular researches modulating TLRs in HCV infection were recommended, that may be of hopeful protective as well as therapeutic values.

RETROGRADE APPROACH TO THE FACIAL NERVE IN PAROTID SURGERY

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Abstract

The temporal branch of the facial nerve was examined in eight cadaver dissections. Number of rami crossing the zygomatic arch and their location with respect to bone and soft-tissue landmarks were estimated. The temporal branch travelled in a constant plane along the under surface of the temporoparietal fascia and was superficial as it crossed the zygomatic arch. Based on these relationships, a safe method of dissection within the temporal region was formulated. In five cases with retromandibular parotid neoplasms, the seventh cranial nerve was located through retrograde exploration of its temporal branch. The decision to resort to the identification of the temporal branch is supported by its adequate calibre in its peripheral area, short course, and multiple rami crossing the zygomatic arch, which enable it to be easily located.

Retrograde or centripetal approach to facial nerve has been found to be anatomically sound, simple to use and safe. It must be indicated when anterograde exploration is difficult.

RESULTS OF TREATMENT OF LUMBAR SPINAL STENOSIS BY TOTAL LAMINECTOMY

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Abstract

Twenty five patients with symptomatic lumbar canal stenosis were the subject of this prospective study done in Orthopaedic Department, Mansoura University Hospitals, Mansoura, Egypt. All patients had previous adequate unsuccessful conservative treatment. None of the patients had obvious spinal instability or any previous spinal surgery. General anaesthesia with standard posterior approach was adopted in all patients. The longitudinal extent of Laminectomy included the levels which were clinically manifested, radiologically evidenced and surgically confirmed. Special attention was given to the presence of lateral recess stenosis. Routine discectomy was performed only for extruded or sequestered disc fragments in 13 patients (52% of cases). Adequacy of decompression was assessed by smooth, free probing of the central and nerve root canals, as well as reappearance of epidural fat and return of dural pulsations. Patients were followed up for a mean period of 14 ± 4.15 months. Since the clinical manifestations of the disease are mainly subjective rather than objective, evaluation of postoperative results depended mainly on the patient self assessment and based on the Japanese Orthopaedic Association (JOA) score. We had 88% excellent and good results revealing that total Laminectomy is an effective method for the treatment of severe lumbar canal stenosis provided that the involved segments are stable preoperatively.

CLINICAL SIGNIFICANCE OF SERUM ANTI GBM IN EARLY DIAGNOSIS OF LUPUS NEPHROPATHY

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Abstract

Background: Anti-GBM antibody mediated nephritis represents an autoimmune disease, where the major immune reaction is focused on a specific region of a well-defined auto-antigen. Our goal is to evaluate the clinical significance of serum Anti-GBM antibodies as a noninvasive predictor for early detection of lupus nephritis with other lupus autoantibodies markers.

Patients and Methods: Our study has been conducted on 48 subjects, 28 patients with SLE, and 20 healthy individuals as a control group. All subjects were subjected to complete history taking and thorough physical examination with the following laboratory investigations: Urine examination, serum creatinine, C₃ C₄, ANA, Anti-ds DNA, Anti-Smith antibodies and Anti GBM antibodies estimation .

Results: The serum creatinine increased in patients with SLE. The serum C₃ and C₄ were lower in patients with SLE and marked decreased in patients with proteinuria. The ANA positivity was 94% in SLE patients with proteinuria. The anti-ds DNA positivity reached 50% of patients with SLE and 75% of patients with proteinuria, while negative in control. The anti-smith antibodies were positive in patients with SLE (66%) and the 75% in patients with proteinuria. The serum level of anti-GBM was elevated in SLE patients (14.2 u/ml) than the control (10.6 u/ml) and more elevated in patients with proteinuria (21.8 u/ml) which showed highly statistical significance of differences.

Conclusion: The presence of increased serum Anti GBM level may suggest, with other lupus autoantibodies markers, the presence of lupus nephropathy.

EFFECTS OF GAMMA RADIATION ON THE RAT LIVER AND THE PROTECTIVE EFFECT OF COMBINED VITAMIN E AND SELENIUM SUPPLEMENTS

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Abstract

The biological effects of ionizing radiation result in the formation of free radicals which are the main cause of cellular damage. The aim of this study is to investigate whether vitamin E (as DL- α -tocopherol acetate) and selenium (as sodium selenate) exert a protective effect against radiation damage.

Thirty adult male albino rats were used in this study. They were divided into three equal groups. The first group was served as control. The second group was given a fractionated dose of gamma radiation at a dose of 1Gy, once weekly for eight weeks. The third group was given a daily intraperitoneal injection of DL- α -tocopherol acetate in a dose of 30mg /kg body weight and sodium selenate in a dose of 0.5 mg/kg body weight for two weeks before the start of radiation and during radiation. All experimental animals were then sacrificed and the livers were removed and prepared for both light and electron microscopy.

The liver cells of the irradiated group showed granular vacuolar cytoplasm with pyknotic nuclei, moderate dilatation and hyperaemia of liver sinusoids, intense glycogen accumulation, an increase and gathering in the smooth endoplasmic reticulum, swollen cisternae of the rough endoplasmic reticulum, and a decrease in the cristae of the mitochondria that contain light matrix. In the irradiated treated group, the majority of liver cells returned normal, although some had still mild changes. Based on these morphological observations, it was concluded that the administration of DL- α -tocopherol acetate and sodium selenate exerts a protective effect against liver damage by radiation.

**SOLUBLE INTERCELLULAR ADHESION
MOLECULE-1 AND INSULIN RESISTANCE IN
WOMEN WITH POLYCYSTIC OVARY
SYNDROME**

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Abstract

Soluble intercellular adhesion molecule -1 (sICAM-1) is ranked as one of the endothelial dysfunction markers and factors predicting diseases of the cardiovascular system. Polycystic ovary syndrome (PCOS) is an extremely prevalent disorder in which altered endothelial function and insulin resistance have been found.. The main Objective: to assess serum level of soluble intercellular adhesion molecule-1 (sICAM-1) as a marker of endothelial dysfunction in relation to insulin resistance and serum testosterone in women with PCOS. Subjects and Methods .The study assessed 40 women with PCOS (mean age 25.57 ± 3.25 year). That group was further divided into two subgroups: the first with body mass index (BMI) $> 25\text{kg}/\text{m}^2$ (20 women of mean age 25.6 ± 3.5 years) and the second with $\text{BMI} < 25\text{ kg}/\text{m}^2$ (20 women of mean age 25.5 ± 3 years). In the control group there were 30 healthy women (mean age of 24.9 ± 3.24 years). That group again was divided according to BMI into two subgroups: the first with $\text{BMI} > 25\text{ kg}/\text{m}^2$ (15 women, mean age 25 ± 3.1 years) and the second with $\text{BMI} < 25\text{ kg}/\text{m}^2$ (15 women, mean age 24.9 ± 3.4 years). Results: The results demonstrated statistically significant higher mean concentrations of sICAM-1 in women with PCOS as compared to control group and also from the control subgroup with $\text{BMI} > 25\text{ kg}/\text{m}^2$. There was statistically significant positive correlation between sICAM-1 and Insulin resistance (HOMA)in PCOS, and total testosterone level. There was also statistically significant correlation between sICAM-1 and BMI in the group with PCOS. Conclusion: higher concentrations of sICAM-1 found in

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women with PCOS, a significant degree of insulin resistance exist, which clearly is not related to obesity. This may confirm the presence of endothelial dysfunctions which is a higher risk for cardiovascular diseases in that group. Further studies are therefore necessary to identify both the factors that are responsible for the increase in sICAM-1 concentration and the clinical usefulness of routine sICAM-1 measurement in females with PCOS.

**PREVALENCE OF OBESITY IN KALYOBIA
AND DAKAHLIA GOVERNATES AS
JUDGED BY BODY MASS INDEX
"AN ANTHROPOMETRIC STUDY"**

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Abstract

This study was designed to assess the relation between body mass index (BMI) and age, sex and parity of non-selected population sample of adults receding in six communities in Kalyobia and Dakahlia Governates so as to determine the prevalence of obesity in these governates and to specify age-, sex- and parity-adjusted prevalence of obesity in such sample. A total of 400 subjects (223 men and 177 women) with a mean age of 36.42 ± 8.77 years; range: 22-58 years were recruited in the study. Body mass index was calculated; $BMI = (\text{weight [kg]} / (\text{height [m]})^2$. Using BMI as the criterion, underweight was defined as $BMI < 20 \text{ kg/m}^2$, below average weight as $BMI \geq 20 - < 25 \text{ kg/m}^2$, average weight as $BMI \geq 25 - < 30 \text{ kg/m}^2$, overweight was defined as $BMI \geq 30 - < 35 \text{ kg/m}^2$, obesity as $BMI \geq 35 - < 40 \text{ kg/m}^2$ and morbid obesity as $BMI \geq 40 \text{ kg/m}^2$. The mean crude BMI of the study participants was $31.1 \pm 4.3 \text{ kg/m}^2$; range: 16.6-44.4 kg/m^2 . Only, 104 subjects (26%) had average BMI, while 31 subjects (7.75%) were below average and 7 subjects (1.75%) were under weight. On the contrary, 206 subjects (51.5%) were overweight, 48 subjects (12%) were obese and 4 subjects (1%) were morbid obese. Thus, the prevalence of obesity was about 64.5% of the studied subjects. Age-adjusted BMI revealed that higher BMI was reported in the age groups ranging between 30 - 50 years, while 109 subjects (27.25%) aged <30 years, and 48 subjects (12%) aged >50 years were less obese with a significant ($P < 0.05$) increase of BMI of subjects aged 30-50 years compared to those younger than 30 years and those older than 50 years. There was a positive signif-

icant correlation ($r=0.108$, $P=0.031$) between age and BMI. Sex-adjusted BMI showed that women had significantly ($P<0.05$) higher BMI compared to men with a positive significant correlation ($r=0.217$, $P=0.004$) between BMI and parity irrespective of the number of living offspring. It could be concluded that urban migrations and sedentary life-style with less physical activities resulted in an increased frequency of obesity that approached 64.5% of the examined sample and was more manifest in middle aged subjects especially women.

VARICOCELECTOMY IS ASSOCIATED WITH INCREASED SEMINAL ANTIOXIDANT LEVEL IN INFERTILE MEN WITH VARICOCELE

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Abstract

Objectives: To explore the impact of surgical correction of varicocele on antioxidant defense system, we assessed spermatozoal reactive oxygen species (ROS) and total antioxidant capacity of seminal plasma from infertile men with varicoceles pre and post varicocelectomy.

Patients and Methods: A total of 58 patients with varicocele who presented for evaluation of infertility were studied, the duration of infertility was 12 months. All patients were subjected pre-operatively to seminal fluid analysis, seminal plasma levels of two ROS; malondialdehyde (MDA) and hydrogen peroxide (H_2O_2) and one ROS radical; nitric oxide (NO) were estimated as well as 4 antioxidants namely; superoxide dismutase (SOD), glutathione peroxidase (GPX), Vitamin E and Vitamin C. Varicocelectomy was done in all patients by the laparoscopic method. Semen analysis and seminal fluid levels of MDA, H_2O_2 , NO, SOD, GPX, Vitamin E and Vitamin C, were measured 3 and 6 months after varicocelectomy.

Results: A statistically significant improvement was noticed in all seminal parameters 3 and 6 months after varicocelectomy. There was also a significant reduction in the level of MDA, H_2O_2 and NO when comparing with the pre-operative values. A further significant reduction in the three ROS levels took place after 6 months. Three of the four antioxidants tested (SOD, GPX and Vitamin C) showed a significant increase in seminal plasma at 3 and 6 months after varicocelectomy when compared with the pre-operative values. Alternatively, seminal plasma level of Vitamin E showed a significant decrease at 3 and 6 months post-operatively.

Conclusion: These results suggest that varicocele is associated with

elevated seminal reactive oxygen species, decreased seminal total antioxidant agents and sperm dysfunction. Our data propose that varicocelectomy reduced seminal ROS levels and increased total antioxidant capacity levels. However, the use of antioxidants in infertile men with or without varicocele demands further controlled clinical trials.

Key words: infertility, varicocele, varicocelectomy, reactive oxygen species, antioxidants.

INTRATHECAL HYPERBARIC ROPIVACAINE VERSUS HYPERBARIC BUPIVACAINE IN GERIATRIC HYPERTENSIVE PATIENTS

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Abstract

Background: The aim of this study was to compare the effects of hyperbaric ropivacaine versus hyperbaric bupivacaine in geriatric hypertensive patients subjected to orthopedic surgery.

Methods: This study was carried out on 60 patients aged above 60 years undergoing orthopedic lower limb surgery. The studied patients were randomly classified into 2 groups. Bupivacaine group(BG) (n=30) : 3 ml of hyperbaric bupivacaine 0.5% (15 mg) was injected. Ropivacaine group(RG)(n=30) : 2 ml of isobaric ropivacaine 0.75% (15 mg) added to 1ml glucose 5% (to give 3 ml solution containing 5 mg ropivacaine + 17 mg glucose/ml). The patients in both groups were observed for: Sensory block duration, level and recovery), degree of motor block (according to Bromage score), the hemodynamic parameters (including MAP, HR, CVP and SpO2), analgesia (assessed by VAS) and side effects.

Results: we found that there was a significant decrease in MAP in BG at 5, 15 and 30 minutes compared with the basal value but in RG there was insignificant differences in MAP compared with the basal value. There was insignificant difference as regards time of onset of sensory block or peak sensory level reached in both BG and RG. There was no difference in potency of motor block or adequacy of sensory block between both groups. There was a significant difference in the duration of sensory and motor block as there was faster recovery from motor and sensory block in RG. Also, there was a significant difference in duration of analgesia between RG and BG. The duration of analgesia in BG was longer than in RG.

Conclusion: Intrathecal administration of either 15 mg hyperbaric ropivacaine or 15 mg hyperbaric bupivacaine was well tolerated and provided similar effective anaesthesia for lower limb orthopedic surgery. Ropivacaine showed more hemodynamic stability than bupivacaine especially during the first 30 minutes after intrathecal injection. Both ropivacaine and bupivacaine produced the same potency of motor and sensory block with more rapid recovery with ropivacaine. So for these results ropivacaine may prove useful when surgical anaesthesia is desired especially in geriatric hypertensive patients whom are more liable for hemodynamic instability.

THE EFFECT OF TRANSDERMAL ESTROGEN ON NITRATE TOLERANCE IN POSTMENOPAUSAL WOMEN WITH CHRONIC STABLE ANGINA

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Abstract

Background. Continuous nitrate therapy leads to complete tolerance within 24 to 48 hours. The mechanism(s) responsible for nitrate tolerance is unclear, but there is increasing evidence that nitroglycerin (NTG) leads to superoxide anion production. Estrogen re-placement exerts a cardioprotective effect in postmenopausal women, one of its beneficial effects is to scavenge superoxide radicals. Objectives. This study sought to evaluate the preventive effect of transdermal estrogen (TD-E) on the development of nitrate tolerance. Methods. In this double-blind, placebo-controlled study, 30 post-menopausal women with chronic stable angina pectoris (mean age 60 ± 9 years) were randomized to receive either TD-E patch (delivering 50 mg daily) (estradiol group, $n = 15$) or placebo (placebo group, $n = 15$). The vasodilator response to NTG was assessed by measuring the change in brachial artery diameter before and 5 min after 0.5 mg sublingual NTG, using a high resolution ultrasound. Blood samples were simultaneously obtained to measure serum estradiol levels. Brachial artery study and blood sampling were performed serially at baseline (day 0), 3 days after administration of TD-E or placebo (day 3) and 3 days after application of a 5-mg/bid NTG tape concomitantly with TD-E or placebo (day 6). Results. There was no significant difference in NTG-mediated dilatation between the placebo group and the estradiol group on day 0 (estradiol group, 22.1 ± 3.6 %; placebo group, 21.8 ± 5.7 %) or day 3 (estradiol group 22.8 ± 3.7 %; placebo group 22 ± 4.8 %). On day 6, the NTG-mediated dilatation in the placebo group (9.5 ± 2.4 %) was significantly

reduced compared with that on days 0 and 3 ($p < 0.01$). By contrast, in the estradiol group, the NTG-mediated dilatation (23.1 ± 2.1 %) was maintained and significantly greater than that in the placebo group ($p < 0.01$). Estradiol maintained also the hemodynamic effect of NTG despite its continuous application. Conclusions. Our findings suggest that TD-E patches attenuate nitrate tolerance in postmenopausal women with chronic stable angina. Although the underlying mechanism has not been determined, the estrogenic antioxidant effects provide an attractive explanation.

STUDY OF THE IMMUNE RESPONSE OF HEPATITIS B VACCINATION IN EGYPTIAN PRE-SCHOOL CHILDREN

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Abstract

Although immunization of infants against hepatitis B virus (HBV) is the most effective way to prevent infection, duration of the afforded protection is controversial. Titers of anti-HBV antibodies tend to decline with age. The Aim of this study is to evaluate the immune response to hepatitis B vaccination in a sample of vaccinated Egyptian pre-school children and the impact of serum ferritin on this response. Subjects and Methods: Serum samples were collected from 91 apparently normal children 5-6 years old, who were fully vaccinated in infancy according to Egyptian immunization schedule, during the period from January to June 2005. HBs antibody titer was assayed by ELIZA, colorimetric determination of serum albumin and serum ferritin estimation by enzyme immunoassay were performed. Body mass index (BMI) was calculated in all children. Results: A total of 49 (53.8%) tested positive response for HBs antibody including [43 weak responders (10-100mIU/L) and 6 high responders (>100mIU/L)] and 42 (46.2%) showed inadequate response (< 10mIU/L). The mean value of serum ferritin (86.9 ug/L) in responders was significantly higher ($P = 0.001$) when compared to inadequate responders (62.8ug/L). No statistically significant difference regarding sex, locality (rural or urban), serum albumin and BMI were detected in between.

Conclusion: High ferritin level (within normal range) may contribute to good immune response to hepatitis B vaccine. Booster dose of HB vaccine should be highly considered to enhance immune protection of the vaccine.

CAN ULTRASOUND GUIDED PERCUTANEOUS SCLEROTHERAPY OF SYMPTOMATIC SIMPLE RENAL CYST BE CONSIDERED AS ALTERNATIVE TO SURGERY?

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Abstract

Objective: To evaluate the efficacy of ultrasound (US) guided aspiration and instillation of ethanolamine oleat as sclerosing material for management of symptomatic simple renal cyst.

Patients & methods: It is a prospective study performed on 26 patients with symptomatic simple renal cyst from February 2003 to February 2005. The diagnosis depends on the ultrasonic imaging. Percutaneous ultrasonographic guided-aspiration of cyst fluid was performed. Then, ethanolamine oleat was instilled into the cyst cavity which was re-aspirated back 90 minutes after instillation with keeping the 5 Fr catheter in place. The procedure was repeated in the 2nd day with removal of the catheter.

Results: Follow up period was 6-24 months (mean \pm SD, 15 \pm 6.2). Significant clinical improvement of symptoms was detected in 22 patients (84.6%) and the symptoms remained the same in the remaining 4 patients (15.4%). The procedure was tolerated by all patients without major significant complications except one patient had a fever (38.5C) for one day & another patient developed pain for 2 days related to the procedure & responded to medical treatment. There was a statistically significant decrease in the diameter of cysts from a pre-procedure (mean of 9.2 \pm 2.2) to the post procedure (mean of 1.6 \pm 2.2) P =0.001

Conclusion: Percutaneous aspiration & sclerotherapy guided by ultrasound is a good option for management of simple renal cyst without significant complications if performed successfully by well-trained hands.

SCLEROTHERAPY OF OESOPHAGEAL VARICES IN CHILDREN: OUTCOME AND PREDICTORS

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Abstract

Background/Aim: Endoscopic variceal sclerotherapy (EVS) has emerged as an effective treatment for bleeding esophageal varices in adults and children. We tried to study many factors affecting outcome of endoscopic sclerotherapy which is poorly defined in children with portal hypertension due to liver disease. Methods: Retrospective random study of children group (number= 49) was presented by oesophageal variceal bleeding mostly hematemesis underwent endoscopic injection treatments with 1% ethanolamine maleate at period from 2003 to 2005. All children continued to receive the therapy by repeated intra and extravariceal endoscopic sclerotherapy not exceeding 8 cm for each sitting at intervals of weeks to months aiming varices to disappear or become grade I and II. They all received regular propranolol medication since they had been diagnosed (2 mg/ Kg in most of them), Children were sedated by propofol during sclerotherapy. We studied etiology, presentation, duration of the disease, number of sclerotherapy sittings and propranolol dosage in relation to good outcome (grade I, II) by suitable statistical analysis. Results: 49 child (aged 2 to 17 years), 30 male and 19 females, had totally 141 injections, and were followed up regularly by upper GI. endoscopy. The most common etiologies were CHF (no=11), AIH (no=9), Wilson's disease (no= 8) followed by BCS (no= 7) and other miscellaneous (no=14). The good outcome (eradication, grade I or II) was in 19 out of 49 (38.78 %), 10 out 19 (52.63%) was in child B classification category. 17 children received 2-10 sitting to reach grade I and II. and the duration of injection sittings of 13/19 (68.42%) was just one year. 10/19(52.63%) patients were above 10 years old age at end of sclerotherapy and 11/19 (57.89%) of patients diagnosed since 5 years. Good outcome was related with

highly significance to duration since first sitting and was correlated significantly to etiology, child classification, years of diagnosis, and number of sittings. Conclusions: Endoscopic sclerotherapy in children is a safe and effective treatment for oesophageal varices due to liver disease. Good outcome was there in some etiologies, and was correlated significantly to child's B classification, early diagnosis before treatment, period since first sitting and number of sittings. These factors had to be studied on large cohort and extended research to clarify this correlations.

Key words: Oesophageal varices, Endoscopic variceal sclerotherapy (EVS)

NASOLACRIMAL DUCT PROBING : FAILURE AND TREATMENT

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Abstract

Purpose: When probing treatment for congenital nasolacrimal duct obstruction fails, it is often unclear whether it is due to technical difficulties, or the severity of obstruction. So, our aim is to study the causes of probing failure and how to treat them.

Method: In a prospective study, 36 nasolacrimal ducts of 26 children aged 12 months to 4 years with congenital nasolacrimal duct obstruction (CNLDO) were treated by probing. In all children probing was done under direct vision using nasal endoscopy. Different forms of CNLDO were treated and studied to determine the potential predictors for treatment failure.

Results: The overall success rate was 95.5 %. Expected failure was attributed mainly to the construction of different forms of membranous penetration on probing. Surgical membranotomy at the area of Hasner's valve under direct nasal endoscopic visualization is an essential step for proper management of CNLDO.

PROPOFOL - KETAMINE ANESTHESIA VERSUS SEVOFLURANE ANESTHESIA IN PEDIATRIC PATIENTS UNDERGOING CARDIAC CATHETERIZATION FOR BALLOON VALVOTOMY

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Abstract

Objective : to evaluate the homodynamic and oxygenation parameters and recovery profile of propofol-ketamine anesthesia versus sevoflurane inhalation anesthesia, during cardiac catheterization in infants and children.

Design : prospective clinical study

Setting : Children Hospital, Mansoura University

Participants : Infants and children (n = 30) undergoing cardiac catheterization

Intervention : group I : anesthesia was induced with ketamine 1 mg/kg followed by a bolus of propofol 1 mg/kg . thereafter initial rate of infusion 50 μ /kg/min propofol and 20 μ /kg/min ketamine.

group II : induction by sevoflurane by steadily increasing inspired concentration in increments of 1.5-2% every 3 breaths until the onset of rhythmic breathing and loss of eye lash reflex occurred. Heart rate, mean arterial blood pressure and non invasive oxygen saturation was monitored throughout the procedure.

Results : Heart rate, mean arterial blood pressure and non invasive arterial oxygen saturation showed no significant differences between both groups during studied periods, The induction was significantly (P= 0.0001) shorter in propofol-ketamine group when compared with sevoflurane group. However, the extubation time (P=0.001), time to eye opening (P=0.0023) and discharge time (P= 0.01) were significantly shorter in se-

voflurane group than propofol-ketamine group.

Conclusion: propofol-ketamine anesthesia or sevoflurane anesthesia was associated with stable haemodynamic and oxygenation profile with more rapid induction with propofol-ketamine group but more rapid recovery with sevoflurane group .

keywords: pediatric anesthesia, cardiac catheterization, propofol-ketamine combination, sevoflurone.

**EVALUATION AND COMPARATIVE STUDY
BETWEEN FIBRIN GLUE AS A SEALANT
AND CONVENTIONAL SURGICAL
PROCEDURES IN SACROCOCCYGEAL
PILONIDAL SINUS DISEASE**

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Abstract

Objective: this prospective study was carried out to compare fibrin glue injection versus conventional surgery in the treatment of pilonidal sinus disease as regards operative time, hospital stay, return to normal activity and recurrence.

Methods: In the period from April 2003 to March 2004, this study included 50 patients with pilonidal sinus. They were randomized into Group (A) that included 25 patients who underwent fibrin glue injection and Group (B) that included 25 patients who underwent excision of the sinus with closure of the defect by either rhomboid flap or Z-plasty. Patients were followed up for 3-12 months.

Results: the operative time was shorter in the fibrin glue group than in conventional surgery group the mean time was 19.8 ± 3.9 and 49.8 ± 3.5 /min. respectively . the hospital stay was also , shorter in group (A) than in group (B) , mean stay was 1 ± 0.52 and 7.5 ± 4.12 days respectively . patients of group (A) returned to their work earlier than group (B) and the long term results of group (A) were more satisfactory than those of group (B).

Conclusion: Autologous fibrin glue injection is a simple , safe and swift procedure and it is promising to be a novel procedure for treatment of pilonidal sinus.

Key words: pilonidal sinus, fibrin glue, rhomboid flap, Z-plasty.

SQUAMOUS CELL CARCINOMA OF THE RETROMOLAR TRIGONE; SURGICAL TREATMENT AND RECONSTRUCTION BY THE PEDICLED BUCCAL FAT PAD FLAP

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Abstract

Objectives: Retromolar trigone carcinoma is uncommon but notorious for poor prognosis. We reviewed our experience with primary surgery followed by postoperative radiation therapy or radiochemotherapy to determine the impact of our treatment protocol on the patients' outcome.

Patients and methods: Between May 2001 and April 2005, 23 patients with RMT squamous cell carcinoma were treated in Surgical Oncology Department, Mansoura University Hospitals, Egypt. Surgical excision of the primary tumor and ipsilateral neck dissection was performed in all patients. Reconstruction was accomplished by the pedicled buccal fat pad flap (12 cases) or temporoparietal fascial flap (11 patients). Patients were followed up for 4-48 months (mean 29 months). There were 3 patients stage I, 11 stage II, 7 stage III, and 2 stage IV.

Results: Posterior marginal mandibulectomy was performed in 11 cases and segmental mandibulectomy in 4 cases. Maxillectomy was done in 8 cases. Pathologic reports confirmed mandibular bone invasion in 8 cases (34.7%) and maxillary bone invasion in 7 cases (30.4%). Metastatic disease was found in 60.9% of ipsilateral neck nodes. Occult metastasis was demonstrated in 38.5% of clinically N0 necks. The 3-year locoregional control rate was 73.9% and the overall 3-year survival rate was 69.5%.

Conclusion: Squamous cell carcinomas of RMT are aggressive tumors. Posterior marginal mandibulectomy instead of routine mandibular resections and reconstruction by the pedicled buccal fat pad are two steps that made surgical treatment easier without compromise of the oncologic safety.

Key Words: Retromolar trigone, squamous cell carcinoma, buccal fat pad, posterior marginal mandibulectomy.

ANTILOB - EAR DEFORMITY

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Abstract

The auricular collapse against the side of the head less than 1.8 cm can be congenital or acquired. The name "antilop-ear deformity" is suggested for these cases to differentiate them from the iatrogenic, postoperative, telephone ear, reverse telephone ear and excessive setback deformities.

An operation is suggested to correct the antilop - ear deformity which actually the reverse of that operation for correcting the lop - ear deformity.

CIRCULATING LEVELS OF INTERLEUKIN-6 AND ITS SOLUBLE RECEPTOR IN ASTHMA EXACERBATION AND REMISSION

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Abstract

Background: Elevated Interleukin-6 (IL-6) Levels have been described in bronchial asthma, where they appear to orchestrate a variety of inflammatory responses. It has been suggested that control of many of these IL-6-mediated events is regulated via soluble Interleukin-6 receptor (sIL-6R). Consequently, when considering the role of IL-6 in asthmatic patients, it is equally important to consider how sIL-6R affects its function.

Objective: This Study was carried out to assess serum levels of IL-6 and sIL-6R in bronchial asthma patients during exacerbation and remission, stressing upon their relationships with airway obstruction, atopic status and allergy-related parameters.

Methods: Thirty-two consecutive asthmatic patients and 16 control subjects were submitted to full medical history taking, clinical examination, measurement of peak expiratory flow rate (PEFR), skin testing, complete blood counting and estimation of serum concentration of IL-6, sIL-6R and total immunoglobulin E (IgE) by enzyme-linked immunoassay (ELISA). In asthmatic patients, all these procedures were done during acute exacerbation and repeated after 4 weeks during remission.

Results: Mean serum levels of IL-6 and sIL-6R were significantly higher in asthmatic patients as compared with control subjects, and in acute asthma exacerbation as compared with its remission. There was no statistically significant difference between atopic and non-atopic patients regarding their levels. Serum IL-6 and sIL-6R correlated positively with each other with stronger correlation in asthma exacerbation. Also they

correlated positively with peripheral blood eosinophilic count (PBEC) and serum total IgE, and correlated negatively with PEFr during exacerbation and remission.

Conclusion: In bronchial asthma, serum IL-6 and sIL-6R are likely involved together in an immunoinflammatory response particularly during acute exacerbation. They are not influenced by atopy. Their increased levels are associated with greater bronchoconstriction suggesting possible roles for them in airway obstruction and in the pathophysiology of bronchial asthma.

THE EFFICACY OF LASER PHOTOCOAGULATION IN TRICHIASIS

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Abstract

Aim of work: to evaluate the efficacy of frequency doubled Nd: YAG laser (532nm) to eliminate misdirected cilia.

METHODS: 42-eyelids of 24 patients with trichiasis divided into 2 groups were treated with the frequency doubled Nd: YAG laser (532nm). The beam was directed coaxially to the lash follicle to create a 2-3 mm crater and vaporization was observed.

RESULTS: Patients have been followed for 2-6 months (mean 4 months). In the first group, (7) eyes (38.8%) responded to treatment after three sessions, the remaining (61.1%) failed after the end of treatment protocol. In the second group, 22 eyes (91.6%) responded to treatment. Of these, 18 eyes after the first session & the rest after three sessions. Two eyes (8.3%) showed recurrence.

CONCLUSION: Frequency doubled Nd: YAG laser (532nm) can be used for lash ablation as an effective office procedure with topical anesthesia. The advantages include low recurrence and complication rates.

**TWO METHODS FOR FLUID PRELOADING
(COLLOID VS. CRYSTALLOID SOLUTION)
DURING SPINAL ANESTHESIA FOR ELECTIVE
CESAREAN SECTION TO PREVENT
MATERNAL HYPOTENSION**

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Abstract

Background: Hypotension associated with spinal anesthesia for Cesarean section is still a clinical problem. Colloid solutions seem preferable to crystalloid solutions for preloading. In most studies the overall rate of hypotension is reported. Few studies have, however, investigated the maternal and neonatal consequences of different levels of maternal hypotension.

Methods: In this randomized, double-blinded study, 110 patients presenting for elective cesarean section received either 1000 ml Ringer's solution or 1000 ml of plasma protein fraction (PPF) solution immediately before spinal anesthesia. The effect on overall hypotension, clinically significant hypotension (hypotension associated with maternal discomfort defined as nausea, retching/vomiting, dizziness or chest symptoms) and severe hypotension (systolic arterial pressure <80 mmHg) was studied.

Results: PPF solution reduced the incidence of overall hypotension from 85 to 66% (P=0.03), reduced the incidence of clinically significant hypotension from 60 to 30% (P=0.002) and reduced the incidence of severe hypotension from 23 to 3.6% (P=0.004) compared to Ringer's solution. There was neither difference in neonatal outcome between treatment groups nor between neonates grouped after severity of maternal hypotension.

Conclusion: Clinically significant hypotension seems to be a more suitable outcome variable than overall hypotension. The protective effect of the colloid solution increased with increased severity of hypotension.

**CAUDAL KETAMINE WITH LIDOCAINE VS.
CAUDAL KETAMINE WITH TRAMADOL
ADMINISTRATION FOR POSTOPERATIVE
ANALGESIA OF HYPOSPADIAS
SURGERY IN CHILDREN**

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Abstract

Background: This study was designed to investigate whether the addition of tramadol or lidocaine to ketamine would enhance the quality of intra- and postoperative analgesia for hypospadias surgery in children.

Methods: Sixty ASA I or II children, between 1 and 10 years of age, scheduled for hypospadias surgery was recruited after local ethics committee of King Saud Teaching hospital in Saudi Arabia. Anesthesia was induced with 6-8% sevoflurane and maintained with 0.5-2.5% sevoflurane 50%N₂O in oxygen. Children were allocated randomly to receive one of two study drugs. Children in group KL received caudal ketamine (0.25 mg/kg) plus lidocaine 2%, (2mg/kg) and in group KT ketamine (0.25 mg/kg) plus tramadol (1 mg/kg). Systemic blood pressure, heart rate, peripheral O₂ saturation, sedation, and children smile pain scores (CSPS) were recorded at 1, 5, 10, 15, 30, 45 min and 1, 2, 3 h following recovery from anesthesia.

Results: Duration of analgesia was similar in the two groups (P > 0.05). CSPS in group KL was lower than in group KT during the study period, except at first 15 min. Sedation scores were higher in group KL than group KT in the first 10 min (P < 0.05). Incidence of Postoperative nausea and vomiting was similar in the two groups (P > 0.05) Sevoflurane concentration required was significantly lower in group KL than group KT peri-operatively (P < 0.001).

Conclusions: Caudal ketamine (0.25 mg/kg), plus lidocaine 2% (2mg/

kg) significantly reduced sevoflurane concentration compared with ketamine (0.25 mg/kg) + tramadol (1 mg/kg). We suggested that both of (ketamine + lidocaine) and (ketamine + tramadol) provided very effective and long duration of analgesia, similarly. However, analgesia quality is more superior in the ketamine-lidocaine group than ketamine tramadol group postoperatively.

APPLICATION OF NEW LAPAROSCOPIC BILIARY INJURY CLASSIFICATION

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Abstract

The development of laparoscopic cholecystectomy is considered the most important event in general surgery in the last 30 years. Bile duct injury is the Achilles heel and the most common serious complication of laparoscopic cholecystectomy. A leading objective in laparoscopic hepatobiliary surgery is to reduce the incidence of these morbid and costly injuries to an absolute minimum as possible.

Avoidance of misidentification of ducts is by adhering to the principle of conclusive identification that the cystic duct and artery are the only structures in the porta hepatis that need to be divided and clipped.

Focus on aberrant anatomy and a new laparoscopic bile ducts injury classification for the differences and applicability discussed, also avoidance of duct injuries.

The aim of the Work *A message from this work is not how to treat laparoscopic biliary injuries but how to prevent them to allow the laparoscopic surgery to maintain its true position as a major advance in the treatment of cholelithiasis.*

**MAMMARY DUCT MICROENDOSCOPY
(LADU SCOPE)
NEW DIAGNOSTIC AND THERAPEUTIC
APPROACH TO NIPPLE DISCHARGE
AND BLEEDING**

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Abstract

Nipple discharge is a common breast complaint and important clinical problem. Because most nipple discharge is a result of benign processes, nonsurgical diagnostic and therapeutic modalities were explored to reduce the need for "blind" surgical intervention.

In 23rd June 2003, the first LADU scope procedure in Egypt and Middle East was performed by the author during the 2nd International Congress of Egyptian Croup of

Laparoendoscopic Surgeons (EGLES). Twenty females complaining of abnormal nipple discharge or bleeding were included in this study. Preoperative clinical, imaging and cytological examinations were revised to exclude malignancy.

This work is a preliminary experience of the mammary duct microscope (LADU scope) in direct visualization and localization of small intraductal lesions and the therapeutic value.

The scope was designed and produced by Mr.Hansgeorg Schaaf, a German Medical Engineer, info@polydiagnot.com.

EFFECT OF ACUTE CEREBROVASCULAR STROKE ON QT DISPERSION

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Abstract

Background: Repolarization and ischemic-like electrocardiographic (ECG) changes observed during acute phase of stroke may cause diagnostic and management dilemmas for the clinician. Some of these changes have been thought to be due either to the stroke state itself or pre-existing heart disease.

Objective: The aim of this study is to assess the effect of acute phase of stroke on QT dispersion (QTd).

Patients and Methods: The study consisted of 42 patients (24) males and (18) females (test group), hospitalized for acute cerebrovascular stroke within 24 hours of symptom onset. A control group of 38 healthy persons were submitted to the study. They were age and sex matched. All test and control groups were subjected to history taking, clinical examination especially cardiac and neurological examination, routine laboratory tests, echocardiography. Twelve leads ECG was done for both test group and control group during the first 24 hours after symptom onset then after one week for test group. Norepinephrine level was done for both test and control groups.

Results: QT dispersion and corrected QT dispersion (QTcd) were significantly greater in 24h-ECG than in 1 week (1w) ECG and the control ECG ($P < 0.001$). In 24h-ECG QTd and QTcd were significantly greater in patients with larger lesions (mean \pm SD [0.048 \pm 0.009 and 0.053 \pm 0.009] vs small lesions [0.04 \pm 0.009 and 0.041 \pm 0.004] seconds, $P < 0.001$). In 1w-ECG patients with right sided lesions were found to have significantly

greater QTd and QTcd values (0.034 ± 0.008 and 0.039 ± 0.005) vs left sided lesions (0.025 ± 0.007 and 0.03 ± 0.004) seconds, $P < 0.001$).

Conclusion: Acute stroke increases QTd and QTcd in patients without any known cardiac diseases. In the first 24hour, QTd and QTcd seem to be more prominent and related to humoral effects of acute insult. However, within one week, stroke localization may also play a role.

VESICO-VAGINAL FISTULA REPAIR USING PLACENTAL MEMBRANES

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Abstract

Background: Vesicovaginal fistula (V.V.F.) is one of the most distressing and socially-limiting conditions that could ever face a female. However available techniques achieve a reasonable success rate, they have some disadvantages as being more complex and of lengthy operative time.

Objectives: The aim of the present work is to report the experience with the treatment of V.V.F using fresh placental membrane flap in 7 Egyptian women.

Patients & methods: 7 Egyptian women aged 21-33 years old (average 26.2) with vesicovaginal fistula were enrolled in Banha University Hospital to participate in such a study between December 2000 and October 2003. 6 patients had primary while 1 had recurrent fistulae. Fresh placental flaps, drawn after normal vaginal delivery or immediately after cesarean section, were taken, managed and then used in repair.

Results: 6 first-attempt patients (85.6%) were completely cured of the vesicovaginal fistula without morbidity while the fistula-recurrent patient had surgery failure very early postoperatively. Cystograms revealed good bladder shape without leakage in all but one patient. Cystoscopy, done after one month of the repair, revealed normal shape of the vesical mucosa. Histopathological examination of the tissue, biopsied after 1-3 months showed mucosal regeneration in the placental patch not typically as urothelium as regards the number of cells. On the other hand, Detrusor muscle regenerated in a discrete shape.

Conclusion: Using fresh placental membranes as a graft for repair of V.V.F is an inexpensive, easy, effective and available and so advisable method. Repeat of this study on a large scale number of patients is highly recommended.

Key Words: Vesicovaginal fistula (V.V.F), Fresh placental flap, vagina, urinary bladder

**COLPOSCOPIC AND HISTOPATHOLOGICAL
FINDINGS IN CASES SHOWING ATYPICAL
CERVICAL SQUAMOUS CELLS OF
UNDETERMINED SIGNIFICANCE. (ASCUS)**

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Abstract

The optimal management of cases with atypical cervical squamous cells of undetermined significance (ASCUS) is still controversial.

In a trial to evaluate the value of colposcopic examination in women with ASCUS, 428 women attending Banha university gynae. clinic were included in the study. We have studied 248 women with pap. smears showing ASCUS and control group with negative pap. smears (n=200). Complete colposcopic examination was carried out for all studied women and cases with unsatisfactory colposcopy were excluded.

Abnormal colposcopic findings were observed in 23 (10.4%) cases with ASCUS and in 9 (5.3%) controls (P<0.05).

Important pathological findings (Flat condyloman and CIN) were found in 12 (52.1%) and in only 2 (22.2%) in controls (P>0.05).

Colposcopic evaluation of women with ASCUS smears appears to be appropriate & valuable as it identifies significant pathology.

Keywords : ASCUS, pap smears, colposcopy.

SAFETY OF REPAIR OF LARGE PARASTOMAL HERNIAS USING A PROSTHETIC MESH IN THE SUB LAY POSITION

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Abstract

Background: *The disappointing outcome of local fascial repair and stoma relocation in parastomal hernias has stimulated a variety of new techniques that use a prosthetic mesh for herniorrhaphy. Many of these procedures either carry the risk of mesh contamination or allow only a local repair. We established a method that allows both an aseptic operation and the management of concurrent incisional hernias.*

Methods: *Thirty-two patients (20 males and 12 females) with a mean age of 56 years (range 52-69 years) with paracolostomy hernias in the period from September 1997 to September 2004 were included in this study. All the patients are assessed preoperatively and treated surgically by midline approach and a prosthetic mesh in the sublay position in a plane between the peritoneum and transversus abdominal muscle. The mean follow up of our patients was 4.5 years (range 6months-6 years).*

Results: *The mean duration of the operation was 150 minutes. The mean size of the mesh used was 15 x 30 cm. There were no major intra operative complications. Four major postoperative complications developed. Small adhesive bowel obstruction, two patients developed severe wound infection and one patient developed pulmonary embolism the mean follow up period was 4.5 years (range 6 months - 6 years). The overall recurrence rate verified by clinical and ultra sonographic examination is nearly 10%. Moreover two patients developed incisional hernia who had no problem with their old scar.*

Conclusion: *It is our opinion that the use of a polypropylene mesh extraperitoneally in the sublay position for treatment of large paracolostomy*

hernias avoids the high recurrence rate seen with local repair or relocation of the stoma, avoids the complications seen with the intra-peritoneal placement of the mesh and furthermore allows the possibility of repair of other fascial defects whether related to the mid line or not with safety, with no major intra operative complications, with no major wound Infection that warrants mesh removal and accepted low recurrence rates.

GENDER-RELATED ASSOCIATION OF SERUM URIC ACID AND LEFT VENTRICULAR HYPERTROPHY IN HYPERTENSION

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Abstract

Background: Association between increased serum uric acid and cardiovascular risk is present in general population including patients with hypertension. The effect of gender on the role of serum uric acid in progression of left ventricular hypertrophy in hypertensive individuals has not been well characterized.

Aim of the study: The aim of the present study was to determine whether sex differences contribute to the risk of association of serum uric acid and left ventricular hypertrophy in hypertensive individuals.

Patients and methods: Seventy participants with essential hypertension (34 men, 36 women; with mean age 54.4 ± 1.6 years) were enrolled to undergo echocardiography to calculate the left ventricular mass index (LVMI). Twenty-four hour ambulatory blood pressure monitoring was done to assess blood pressure level precisely. Serum uric acid was determined.

Results The LVMI was significantly positively correlated with serum uric acid ($r=0.295$, $P<0.01$) in all participants. After controlling for factors such as age, sex, mean 24-h systolic blood pressure, creatinine clearance, and duration of hypertension, serum uric acid was still found to be significantly and independently associated with LVMI. Because serum uric acid was significantly higher in men than in women (6.8 ± 0.3 and 5.1 ± 0.2 mg/dl, respectively), subsequent analysis was performed by gender. Multiple regression analysis revealed that the LVMI was significantly and independently associated with serum uric acid in women, but not in men.

Conclusions The potential effect of serum uric acid on LV hypertrophy is more pronounced in hypertensive females than in males.

Key Words: Gender; Hypertension; Left ventricular hypertrophy; Uric acid

**EFFECT OF PRAVASTATIN,
A 3-HYDROXY-3-METHYLGLUTARYL-
COENZYME A REDUCTASE INHIBITOR, ON
APOPTOSIS AND PROLIFERATING CELL
NUCLEAR-ANTIGEN (PCNA) IN RAT
COLON CARCINOGENESIS**

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Abstract

Apoptosis plays a central role in tumor development and it has been hypothesized that lack/ failure of apoptosis leads to the development of tumors, including colon tumors. Carcinogen treated rats develop foci of aberrant crypts in the colon (ACFs) that have been interpreted as preneoplastic lesions. The aim of the present study was to evaluate the effect of orally administered pravastatin (3- hydroxyl- 3- methylglutaryl- coenzyme A reductase inhibitor) on colon mucosal cholesterol level, apoptosis and the proliferating cell nuclear-antigen (PCNA) during induction and development of 1,2-dimethylhydrazine dihydrochloride (DMH) induced ACFs in the rat colon. The rats group I injected with 0.9% saline and served as negative control group, rats of groups (II-IV) were injected with DMH once a week for 4 weeks (between weeks 5 and 8 after the start of the experiment), group II served as a carcinogen control group without pravastatin treatment, group III pravastatin preventive group, received the pravastatin from the start of the experiment until 8 weeks before and during the carcinogen administration (before and during the initiation period), group IV pravastatin curative group were administered pravastatin for 10 weeks after the carcinogen administration (post initiation administration). All animals were sacrificed under ether anesthesia at the end of week 18. Pravastatin administration significantly decrease colonic mucosal cholesterol level in both initiation and post initiation stages, reduced the number of ACF, induced apoptosis and have antiproliferative activity in both initia-

tion and post initiation stages but the effect was only significant in group III. Conclusion: the results of the present study suggest that pravastatin is a cancer chemopreventive agent which may suppress DMH induction of lesions and their subsequent development via decreasing colon mucosal cholesterol, induction of apoptosis and antiproliferative action.

**ROLE OF LARYNGO-PHARYNGEAL REFLUX
IN OTITIS MEDIA WITH EFFUSION
IN YOUNG CHILDREN
(NEW TECHNIQUE)**

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Abstract

Background: Otitis media (OM) has the highest incidence among all medical conditions in children younger than age five, Otitis media with effusion (OME) is the most common cause of childhood deafness. Gastroesophageal reflux disease (GERD) refers to the symptoms and complications of abnormal passage of gastric contents into the esophagus, Laryngopharyngeal reflux (LPR) is the movement of gastric contents beyond the esophagus up to the laryngeal and pharyngeal area. As well as pepsin and acid of gastric contents can include bile acids and pancreatic enzymes, all of which can injure tissues not adapted to them. Although Gastroesophageal Reflux (GER) may be normal, LPR (Laryngopharyngeal Reflux) should never be considered physiologic. LPR has been implicated in the OME pathogenesis; therefore, it is necessary to identify the presence or absence of gastric juice in the middle ear.

Hypothesis: The objective was to investigate the potential use of pepsin and pepsinogen as diagnostic marker for Laryngopharyngeal reflux disease in otitis media with effusion

Study design: We studied 100 children with symptoms suggestive of either gastroesophageal reflux (GER) or OM clinically; all patients were subjected to pharyngeal PH test, Tympanometry, middle ear fluid samples (obtained by myringotomy from patients with Otitis media with effusion) were examined for the presence of pepsin and pepsinogen by using a proteolytic enzyme assay

Result (s) : There was a statistical significant difference as regarding the effect of LPR proved by pharyngeal PH <4.0, in cases of otitis media

with effusion. Of 34 patients with OME subjected to myringotomy 61.76% were positive for pepsin and pepsinogen .

Conclusion: A strong significant relation was found between LPR and OME (evidenced by pharyngeal PH <4.0 and Middle ear fluid pepsin and pepsinogen)

We suggest a causative link between LPR and OME in young children.

VALUE OF GLOBAL MYOCARDIAL PERFORMANCE INDEX IN EVALUATION OF PATIENTS WITH MITRAL REGURGITATION

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Abstract

Introduction: MR may be caused by either primary valvular or secondary to mitral annular dilatation. Global myocardial performance index (Tei-index) which is defined as the sum of isovolumic contraction and relaxation time divided by the ejection time, was reported to be simple, reproducible and independent of heart rate and blood Pressure. The Tei-Index has already been applied clinically in patients with different cardiac diseases.

Aim of the study is to evaluate the value of Tei-Index in evaluation of patients with significant MR .

Patients and Method: The study included 60 patients (35 male and 25 female, mean age 40 ± 10 years) with symptomatic significant MR. There were 30 patients with PMR(group I), due to rheumatic degeneration, n =22; valve prolapse, n =6 and rupture of chordae tendinae, n=2. There were 26 female and 4 male. The other 30 patients (group II), were SMR due to ischemic cardiomyopathy, 25 male and 5 female .

All subjects underwent full Echocardiographic examination including Doppler recording of mitral and aortic flow and calculation of Tei-Index (The sum of isovolumic contraction and relaxation time (a) divided by ejection time(b), $(a - b)/b$).

Results: Tei-Index showed no significant correlation to heart rate or blood pressure. Tei-Index showed significant correlation to LVEDD ($r=0.74$, $P<0.05$), LVESD ($r=0.80$, $P<0.05$).

Tei-Index was significantly higher in patients with SMR in comparison to PMR and control group ($p<0.05$) ,On the other hand, in patients with PMR, Tei-Index did not differ significantly from control group ($p>0.05$).

Cut point of $\geq 49\%$ for Tei-Index was able to separate SMR from PMR, with sensitivity of 90% and specificity of 81%.

Conclusion: *Tei-Index is simple, feasible, non-invasive, easily obtained and independent of heart rate and blood Pressure The index is normal in patients with PMR with preserved systolic function and it is increase in patients with SMR, which makes this index of value in differentiation between patients with PMR and SMR.*

Key Words: *Tei-Index, Primary and secondary mitral regurge.*

Abbreviations: *PMR- Primary mitral regurge; SMR- secondary mitral regurge; ICT-isovolumic contraction time; IRT- isovolumic relaxation time; ET-ejection time.*

PLASMA TRACE ELEMENTS:SELENIUM, ZINC AND MAGNESIUM IN PATIENTS WITH REFRACTORY EPILEPSY

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Abstract

Objective: to study the effect of long term use of antiepileptic drugs (AEDs) on the serum levels of selenium , zinc , and magnesium and the role of these trace elements in evolution of refractory seizures. Subjects and Methods:Thirty patients were chosen to have idiopathic tonic clonic seizures (15Cases) and idiopathic partial epilepsy (15Cases). They were 18 males and 12 females with age range 16-44 years. (mean 31.85± 4.68yr).Preliminary studies were done(thorough general and neurological evaluation, brain imaging studies (CT & MRI) , Serum electrolytes and blood gases, random blood sugar, total calcium assay, electroencephlography) to exclude cases with suspected etiology for recurrence of seizures and cases of low serum drug levels.Patients selected for the study were additionally subjected to:determination of serum levels of antiepileptic drugs (phenytoin, carbamazepine valproate,and clonazepam)by using commercially available kits from Behring diagnostic Inc.,and assessment of plasma trace elements levels (selenium, zinc and magnesium) by using the atomic absorption spectrophotometry method.Fifteen healthy subjects of matched age and sex were tested for plasma selenium, zinc and magnesium as a control group. Results: No significant differences between the two patients' groups as regards age ,sex ,frequency of fits ,duration of illness and Plasma trace element levels . One way ANOVA showed significant lower levels of zinc and magnesium in all of the patients compared to controls (P<0.001 & P<0.05 respectively).Serum selenium levels were nearly significantly lower in epileptic patients(p=0.08) than in control.

Correlation studies revealed a significant negative correlation between selenium levels and duration of AED therapy (r=-0.65 & P<0.05), PHY

serum level ($r=-0.42$ & $P<0.05$), and VPA serum level ($r=-0.62$ & $P<0.05$). Also a significant negative correlation between plasma zinc levels and age of the patients ($r=-0.52$ & $P<0.05$), duration of AEDs therapy ($r=-0.73$ & $P=0.04$), phenytoin serum level ($r=-0.64$ & $P=0.04$), and valproate serum level ($r=-0.65$ & $P=0.04$). In addition, there was a significant negative correlation between plasma magnesium levels and age of the patients ($r=-0.52$ & $P<0.05$) duration of AEDs therapy ($r=-0.65$ & $P<0.05$), PHY serum level ($r=-0.69$ & $P<0.05$). Conclusion: the long term use of antiepileptics may lead to trace element deficiencies, especially selenium, zinc and magnesium with subsequent neuronal damage and evolution of resistant states. In future, wide scale studies to investigate the effect of anti-epileptic drugs on other trace elements and supplementation of these elements in every case of epilepsy who developed intractable seizures during the course of antiepileptics and before the addition of more drugs.

FRONTALIS SLING USING EXPANDED POLY TETRA FLUORO ETHYLENE (EPTFE) MATERIAL THROUGH AN OPEN APPROACH

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Abstract

Purpose: *To evaluate the proposed material (EPTFE) and approach as a suitable alternative for the correction of poor levator function ptosis.*

Method: *Twenty-one eyes with unilateral & bilateral poor levator function ptosis were subjected to the proposed frontalis sling procedure using an open approach with internal fixation using EPTFE material. Follow up ranged 1 year to 3 years.*

Result: *All cases showed functional improvement with an average increase of 2.7 mm in palpebral fissure measurements. Regression of results was documented up to 3 months postoperative, after which lid height seemed to stabilize. No cases of slippage, extrusion or granuloma formation were encountered.*

Conclusion: *EPTFE material, internally fixated through an open approach is a reliable & effective alternative to other materials used with conventional closed frontalis sling approach.*

PREVALENCE AND ROLE OF RESPIRATORY VIRUSES IN THE ETIOPATHOGENESIS OF ACUTE OTITIS MEDIA

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Abstract

Aim: To investigate the prevalence of various respiratory viruses in middle ear effusion (MEE) and nasopharyngeal specimen in 54 children with recurrent acute otitis media (AOM) with effusion who had failed to improve after antimicrobial therapy and to determine the incidence of respiratory syncytial virus (RSV) as one of most common respiratory viruses in AOM. Methods: Middle ear effusion (MEE) samples collected at the time of tympanostomy tube placement from 54 children with recurrent acute otitis media were subjected to reverse transcriptase polymerase chain reaction (RT-PCR) to detect the presence of RSV genomic sequences. Also MEE and nasopharyngeal specimens were subjected to viral and bacterial cultures and to detect viral antigens. The viral cause of the infections was also assessed by serologic studies of serum samples obtained during the acute illness and convalescence. Results: Viral infection was detected in 43 out of 54 children (79.6%), RSV was isolated from 57.1% of patients by viral culture and antigen detection and from 81.5% by RT-PCR. Conclusion: Viral infection particularly RSV either alone or concurrent with bacteria is present in larger percentage of children with recurrent acute OME than previously suspected. PCR has proved to be more sensitive and specific than viral cultures and immunoassays in the detection of viruses in specimens. This would be helpful in guiding the use of preventive measures such as RSV vaccine.

ROLE OF INTERLEUKIN-18 IN ALLERGIC RHINITIS

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Abstract

The role of IL-18 has not been well studied in allergic rhinitis. Few studies demonstrated up-regulation of IL-18 in nasal discharge of allergic rhinitis patients. The persistence of elevated IL-18 concentrations until after the season suggests a role for this cytokine in persistent allergic inflammation. In this study, we tried to throw light on this role in patients with allergic rhinitis by investigating whether polymorphism is present in the coding regions of the IL-18 gene and, if so, to further analyze the association between polymorphism and allergic rhinitis in a case-control study. Blood samples were collected from 32 patients and 8 healthy controls matched by age and sex. Every patient was subjected to skin prick test (SPT) to confirm the clinical diagnosis and to detect the causative allergen(s). Sera from the patients and controls were analyzed by using PCR single-nucleotide polymorphisms (SNPs). There was a significant difference of IL-18 gene polymorphism at position -137 among allergic rhinitis patients and controls. The frequency of the -137C allele was significantly higher among allergic rhinitis patients as compared to the controls. We concluded that IL-18 gene polymorphism may represent an important susceptibility biomarker for the increased susceptibility to allergic rhinitis. This study reinforced the need for in-depth analysis of immune dysregulation of patients with allergic rhinitis and point to the potential usefulness of cytokine-based therapy.

LID REINFORCEMENT USING SILICON TUBE IN REPAIRING OF INVOLUTIONAL ENTROPION

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Abstract

Purpose: To assess the long term efficacy of Lid reinforcement using silicon tube procedure in the correction of lower lid involutional entropion and to quantify the effect upon lower lid retractor function.

Patients & Methods: A prospective clinical trial of 20 eyelids in 20 patients undergoing lid reinforcement using silicon tube as a correction of involutional entropion. Patients were assessed preoperatively and at 1, 2, 4, and 6 months postoperatively. The main outcome variables were lower lid position and the change in lower lid retractor function.

Results: When compared with the non entropic side, the entropic lid had a greater degree of horizontal laxity and poorer lower lid retractor function. At the conclusion of the study, the entropion had recurred in 5% of the patients. The improvement in lower lid refractor function after the procedure did not reach statistical significance.

Conclusion: The use of silicon tube lid reinforcement in the correction of primary or recurrent lower lid involutional entropion is a simple, successful, long lasting, and cost effective procedure.

Key Words: entropion, involutional, lid laxity, tarsal, lower lid, silicon tube, reinforcement.

A MODIFIED TECHNIQUE OF EVISCERATION FOR VARIABLE SIZED ORBITAL IMPLANTS

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Abstract

Introduction: *One of the drawbacks with the traditional evisceration is the limit of the implant size that can be placed within the scleral cavity. The aim of this work is to describe a new modified evisceration technique that can help to insert a large size orbital implant to achieve a better cosmetic appearance.*

Patients and Methods: *In this prospective randomized clinical study, 26 patients had done evisceration technique that combined superotemporal and inferonasal scleral entry widening radial incisions with a circumferential 360° optic nerve release incision. A proper orbital implant size was selected using a metal sizer and an orbital implant was placed within the scleral cavity using a special implant introducer. The scleral flaps were approximated together anteriorly and sutured together using multiple interrupted 5-0 vicryl sutures. Tenon's capsule and the conjunctiva were closed in two separate layers.*

Results: *Seventeen patients (63.38 %) received 22-mm implants, one case of them was developed implant exposure which was reoperated with small size implant and 9 patients (36.62%) received 20 mm implants. All patients had moderate to severe postoperative eyelid swelling and conjunctival chemosis that resolved completely within the first postoperative month.*

No cases of ptosis, implant migration, or socket contracture had occurred.

Conclusion: *This evisceration technique that combines scleral entry widening with optic nerve release is simple, effective and allows placement of large size orbital implants with excellent cosmetic results and minimal complications.*