

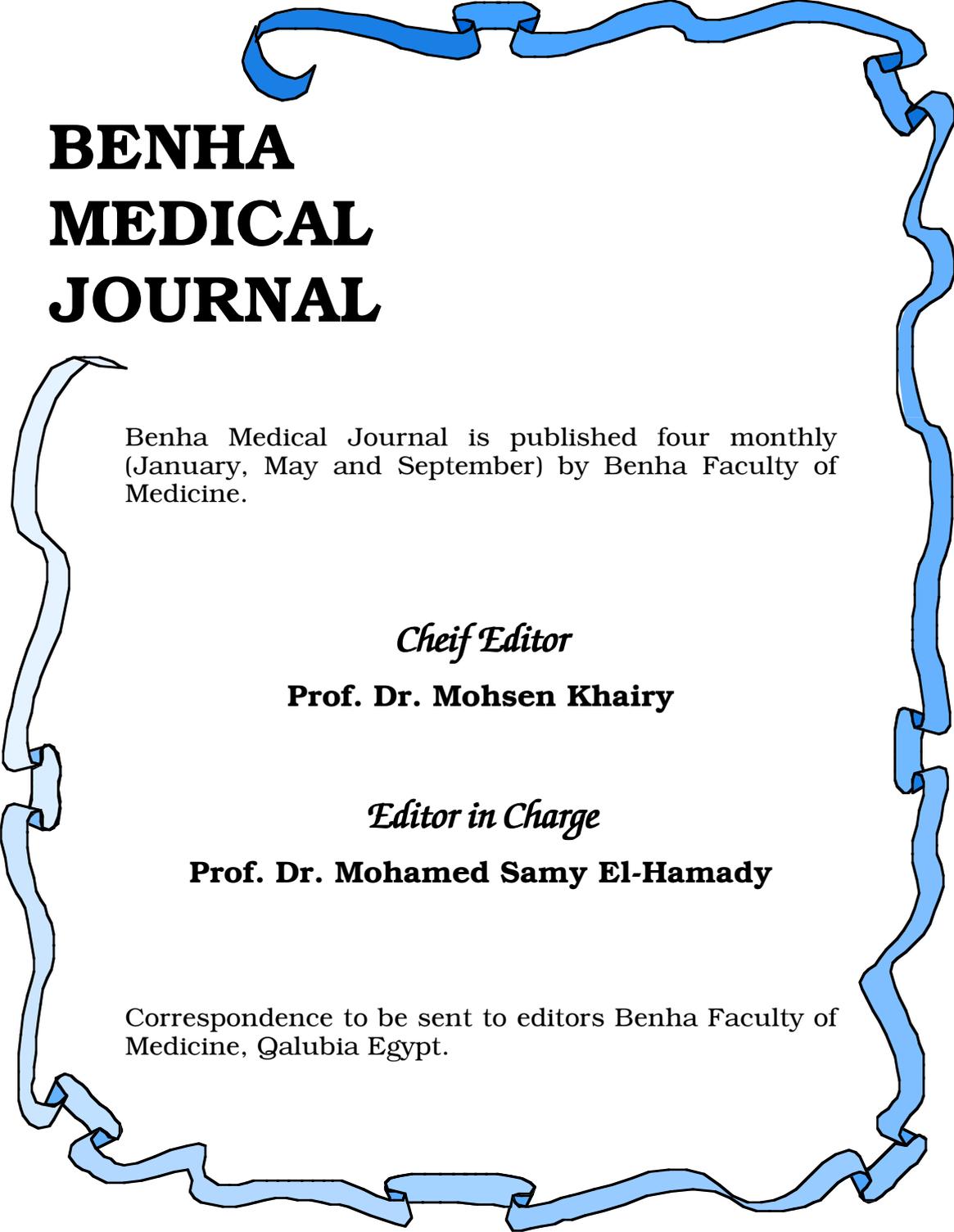
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THE ROLE OF HEART RATE VARIABILITY IN THE DIAGNOSIS OF RHEUMATIC FEVER IN CHILDREN

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Abstract

Background: Rheumatic fever is a characteristic constellation of multi-system disease, which occurs after a lag period following pharyngeal infection with group A streptococci. Heart Rate Variability (HRV) is defined as the amount of heart rate fluctuations around the mean heart rate. HRV can be used as a mirror of the cardio-respiratory control system and represents one of the most promising and easy markers of sympathetic and parasympathetic function of the autonomic nervous system. Objectives: Determining HRV changes in children with rheumatic fever, as well as using HRV as a diagnostic marker of rheumatic heart disease. Subjects: This cross-sectional case-control study included 50 children suffering from rheumatic fever (25 males and 25 females), their ages ranged between 5-12 years with a mean of 8.52 ± 3.45 year and their mean weight was 27.28 ± 8.07 Kg. Forty healthy children (20 males and 20 females) of the same age and with a mean weight 25.35 ± 6.22 Kg were studied as a control group. Methods: All cases were subjected to thorough clinical examination, laboratory investigations [erythrocyte sedimentation rate, anti-streptolysin O titer, C reactive protein, X-ray chest and heart, electrocardiographic recording, echocardiographic assessment, and HRV measurement. Results: All indicators of HRV showed a highly statistical significant impairment in cases with rheumatic heart disease compared to controls ($P < 0.01$), and showed a statistical significant decrease in patients with rheumatic carditis with or without heart failure in comparison to controls ($P < 0.05$). Also, the results of this study showed that patients with rheumatic carditis with or without heart failure had significant increase in average rate and significant decrease in P-R interval in compari-

son to controls ($P < 0.05$) . Cases with rheumatic arthritis showed insignificant decrease in HRV indices ($P > 0.05$) . Conclusion: HRV indices are impaired in patients with rheumatic heart disease and more significantly impaired in patients with rheumatic carditis with or without heart failure, suggesting alteration of autonomic activity in the form of decreased parasympathetic tone on the heart. Therefore, HRV could be used as a diagnostic marker of carditis in cases with rheumatic heart disease .HRV indices are impaired in cases with rheumatic heart disease in spite of taking antifailure drugs that increase HRV, so HRV will be more impaired without treatment with these drugs.

**EXTRACELLULAR ACCUMULATION OF
BIOACTIVE SUBSTANCES; INTERLEUKIN -1 β
(IL-1 β) AND PLASMINOGEN ACTIVATOR
INHIBITOR-1 (PAI-1) IN STORED BLOOD UNITS,
RELATION TO BACTERIAL CONTAMINATION**

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Abstract

Bacterial contamination of blood and its cellular components remains an unresolved problem in transfusion medicine. Its relation to release of some bioactive substance from cellular blood components is not determined. The present work was designed to explore the levels of two bioactive compounds Interleukin-1 β and Plasminogen activator inhibitor-1 in stored blood and their relation to bacterial contamination of these units. This study was conducted on 112 blood units obtained from blood bank of Mansoura University Children Hospital. Sequential blood samples were obtained both immediately after donation and 10 days after for measurement of interleukin-1 β and Plasminogen activator inhibitor-1 and for bacterial culture by BACTEC 9050 system. There was statistically significant increase in both IL-1 β and PAI-1 ($P= 0.0001$) after 10 days of blood units storage. Bacteriological culture revealed no growth in 68 % and positive growth in 32% of blood units. The commonest isolated organism was Staph. aureus (15 %) followed by Staph. epidermidis (13%) then Yersinia sp. and Enterobacter sp. (2 %) for each. From the present study we could conclude that; stored blood units contain platelets and WBCs derived bioactive substances PAI-1 and IL-1 β which increase with the duration of blood storage. Furthermore, the extended duration of storage carries the danger of blood contamination by bacteria. Automated blood culture system seems to be helpful in identification of bacterial contamination of blood units. We recommend fresh blood transfusion as early as possible and the practice of Leucofiltration to avoid blood transfusion complications.

EVALUATING CHILDREN WITH SPECIFIC LANGUAGE IMPAIRMENT USING MISMATCH NEGATIVITY

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Abstract

The Mismatch Negativity (MMN) is an automatic cortical evoked potential that provides a tool for studying central auditory processing mechanisms involved in the perception of simple acoustic stimuli and of speech sounds. Because it does not require the subjects' attention to the stimuli, it was used in this study in assessing 20 children with specific language impairment (SLI), who are expected to suffer from attentional problems as well. Their results were compared to those obtained from 20 children with normal language development in a trial to explore any underlying central auditory processing disorders in SLI children. The results revealed that children with SLI had significantly higher values of waveform latency and amplitude values that age matched children with normal language development. However, there was no significant relation between the findings and the amplitude of language deficit. The effect of age on MMN results in both normal and SLI children is evaluated and discussed in this study.

Key Words: Mismatch negativity, specific language impairment, etiology of delayed language development

ANTI-CYCLIC CITRULLINATED PEPTIDE ANTIBODIES IN RHEUMATOID ARTHRITIS AND THEIR CLINICAL SIGNIFICANCE

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Abstract

One of the characteristics of rheumatoid arthritis (RA) is the presence of several autoantibodies in the serum of the patient. However, most of these antibodies have failed to demonstrate adequate diagnostic and prognostic value so far. There is growing evidence that therapeutic intervention early in the course of RA leads to earlier disease control, less joint damage, and a better prognosis . A new serological test, the anti-cyclic citrullinated peptide (anti-CCP) was developed. Anti-CCP was reported to have a high specificity for the diagnosis of RA, especially in patients with early disease and its presence before disease presentation is suggestive of its role in disease pathogenesis .The aim of this study is to estimate the level of anti-CCP antibodies in the serum of RA patients and to correlate them with RF isotypes (IgG and IgM)and clinical findings as disease activity and severity. This study comprised 68 RA patients (64 female and 4 males)diagnosed according to the revised criteria described by ACR (1987),in addition to 15 healthy control subjects. Clinical assessment of RA disease activity and severity, radiological investigations, and laboratory investigations (complete blood picture, ESR, CRP, determination of anti-CCP, IgG-RF and IgM-RF antibodies by ELISA technique)were done for all subjects.Highly significant increase in the levels of anti-CCP, IgG-RF and IgM-RF antibodies were found in RA patients compared to control group ($P < 0.001$ for each). Anti-CCP antibodies showed the highest diagnostic specificity (100%) than both RF IgM and IgG (93.33% for each).The anti-CCP and IgG-RF tests had excellent sensitivity (95.59 % and 98.53 % respectively) while IgM-RF had relatively lower sensitivity than both tests (86.76 %). Anti-CCP level was significant positively corre-

lated with duration of the disease ($P=0.024$). Also, there was positive correlation between anti-CCP levels and all disease activity parameters which include the number of active joints ($P=0.007$), duration of morning stiffness ($P<0.001$), ESR ($P<0.001$) and CRP values ($P=0.024$). Anti-CCP test had the best correlation with disease activity grades, disease severity, and radiological score ($P=<0.001$, $P=<0.001$ & $P=0.000$ respectively). The level of anti-CCP in patients receiving methotrexate either alone or with leflunomide is lower than other patients receiving methotrexate with corticosteroids (56.5 ± 41.33 , 112 ± 95.04 IU/ml respectively). In conclusion, anti-CCP antibodies could be regarded as a new diagnostic marker for RA as they have 100% specificity and 95.8% sensitivity and it could predict erosive development early in the disease, and it could be used in evaluation of disease activity, severity and therapeutic response.

MATERNAL AND FETAL OUTCOME IN PREGNANT DIABETIC PATIENTS IN MANSOURA UNIVERSITY HOSPITAL

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Abstract

Introduction: Presence of diabetes mellitus during pregnancy has important consequences for both mother and fetus.

Aim of the work (objective): Study maternal and fetal outcome among pregnant diabetic women in Mansoura University Hospital.

Material and Methods: Retrospective study was performed in the antenatal care unit, Mansoura University Hospital in the period from September, 2003 to October, 2005. The study group included 215 pregnant diabetic women, in addition to 200 cases with normal pregnancies as control group. The study group included 145 cases with pre-gestational D.M and 70 cases with gestational D.M. The maternal and fetal outcomes were studied and analyzed.

Results: In our study, pregnant diabetic patient represent 8.1% of total admission in antenatal care unit, this reflect the high incidence of D.M in Egypt. Maternal complications among pre-gestational D.M were higher than control, including high rate of cesarean section 71.7%, pre-eclampsia 24.1%, urinary tract infections 15.1%, polyhydramnios 19.1% and ketoacidosis 2.7%. The most common adverse outcome in gestational D.M group was fetal macrosomia 51.4%. Infant, born to mothers with pre-gestational D.M were at increased risk of congenital malformations 8.3%, IUFD 5.5%, asphyxia 6.2% and neonatal death 8.3%. We recorded 40% of our study group as being poorly controlled.

Conclusion: Early detection of D.M, optimal glycemic control in periconceptional period and throughout pregnancy and adequate fetal surveillance will improve the maternal and fetal outcome in diabetic patients.

Key words: Pregestational diabetes mellitus, gestational diabetes mellitus, maternal complications, fetal complications.

THE VALUE OF PULSE-WAVE DOPPLER TISSUE IMAGING DURING DOBUTAMINE STRESS ECHOCARDIOGRAPHY IN DETECTION OF RIGHT CORONARY ARTERY NARROWING

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Abstract

Background: *The importance of right ventricular function in acute and chronic cardiac affection is well established.*

Objective: *Is to assess the value of pulse wave Doppler tissue imaging (PWTDI) during dobutamine stress echocardiography in detection of right coronary artery narrowing.*

Patients and Methods: *40 subjects were divided into two groups according to the presence (patient group) or absence (control group) of significant > 70% isolated right coronary artery narrowing proved by coronary angiography.*

All patients studied had right coronary artery dominance, they were subjected to the following: complete history taking and thorough clinical examination, 12 leads resting surface electrocardiography, resting standard echo Doppler study, coronary angiography, dobutamine-atropine stress echocardiography with pulse-wave Doppler tissue sampling.

Results: *There was no statistically significant difference between the two groups as regard to early "E" and late diastolic "A" velocity in cm/sec by pulse wave tissue Doppler at rest, low dose and high dose dobutamine. $p > 0.05$. Regarding the ejection phase velocity in cm/sec. (EJ) .. by pulse-wave Doppler tissue there was no statistically significant difference between the control and the patient groups at rest and low dose dobutamine $p > 0.05$., however at high-dose dobutamine there was a highly statistically significant difference ($p < 0.01$) and it was found that a progressive increase of the ejection phase velocity (EJ), expressed by a more than*

25% increase from 10 $\mu\text{g}/\text{kg}/\text{min}$ (low dose) to peak dobutamine stress was predictive of normal or insignificantly narrowed right coronary artery (RCA). Whereas a blunted increase, expressed by < 25% increase of velocity, was predictive of a significantly narrowed RCA. The sensitivity, specificity, negative predictive value, positive predictive value and accuracy of pulse-wave Doppler tissue sampling in detection of right coronary artery narrowing was 80% , 75% , 79.2%, 76.9% and 78% respectively. Analysis of the right ventricular wall was accessible using the pulsed wave tissue Doppler sampling in all cases while visual assessment was not.

Conclusion: Pulsed wave tissue Doppler sampling is a valuable tool to detect right coronary artery narrowing when combined with dobutamine-atropine stress echocardiography.

SUPEROXIDE DISMUTASE IN SOME GASTROINTESTINAL MALIGNANCIES

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Abstract

Erythrocyte Cu/Zn superoxide dismutase (SOD) plays an important role in protecting cells from injury due to oxidative stress hence the role of SOD in cancer has been suggested (Oberley et al., 1979). The present study was done aiming to assess erythrocyte Cu/Zn SOD activity in some gastro-intestinal malignancies. These included 55 patients classified into hepatocellular carcinoma group (HCC; n= 25), and early colorectal cancer group (early CRC; n = 30), and in addition a group of 10 apparently healthy adults (control group) of matched age and sex was selected. Erythrocyte Cu/Zn SOD activity was determined by spectrophotometric method. The results revealed significant decrease of SOD activity in HCC before surgery as compared to their respective values in control group. Surgery induced insignificant increase of erythrocyte SOD activity in these patients. In early CRC group, LDH, CEA and erythrocyte Cu/Zn SOD levels was significantly increased in comparison to control group; however the levels of these parameters were decreased to normal range after surgical resection. In conclusion, SOD activity varies according to the cell type malignancies but in all of them reflect response of tumor to therapy.

**THE VALUE OF PLASMA MATRIX
METALLOPROTEINASE-1 AND TISSUE
INHIBITOR OF METALLOPROTEINASES-1
ESTIMATION AS BIOMARKERS OF
ULCERATIVE COLITIS ACTIVITY**

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Abstract

AIM: *Overexpression of mucosal metalloproteinases (MMP) have been demonstrated recently in inflammatory bowel disease. Their activity can be counterbalanced by the tissue inhibitor of metalloproteinases (TIMP). The aim of this study was to evaluate the effect of ulcerative colitis (UC) on MMP-1 and TIMP-1 plasma concentrations, as two possible biomarkers of the disease activity.*

METHODS: *MMP-1 and TIMP-1 plasma concentrations were measured with an enzyme immunoassay in 16 patients with endoscopically confirmed active UC and 12 healthy controls.*

RESULTS: *Plasma concentrations of both MMP-1 (13.7±0.2 ng/ml) and TIMP-1 (799±140 ng/ml) were significantly elevated in UC patients in comparison to healthy controls (11.9±0.9 ng/ml. and 220±7 ng/ml respectively). There was no correlation between TIMP-1 and MMP-1 concentrations (r=-0.02). TIMP-1 levels revealed significant positive correlations with scored endoscopic degree of mucosal injury, disease activity index and clinical activity index values as well as C-reactive protein concentration. There was no correlation between MMP-1 and laboratory, clinical or endoscopic indices of the disease activity.*

CONCLUSION: *These results confirm the role of both MMP-1 and TIMP-1 in the pathogenesis of ulcerative colitis. However only TIMP-1 can be useful as a biomarker of the disease activity, demonstrating association, with clinical endoscopic pictures.*

**LEVELS OF SOLUBLE ADHESION MOLECULE
VCAM-1 AND ICAM-1 IN THE PLASMA OF
CHRONIC TRANSFUSED CHILDREN
WITH SICKLE CELL DISEASE**

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Abstract

Increased adhesive events between the blood vessel endothelium and red and white cells play a central role in the initiation of vasoocclusive crisis. We examined endothelial functions and serum levels of inflammatory mediators in transfusion-dependent patients with sickle cell disease in stable asymptomatic stage and on crisis. The study population consisted of 40 patients with sickle cell disease(SCD) aged from 5 years to 13 years and 35 healthy normal individual with matched age and sex as control group .Serum levels of vascular cell adhesive molecules(sVCAM-1) and intercellular adhesive molecule(sICAM-1) with serum level of interleukin 6 (IL6) were determined with Enzyme -Link Immunosorbent assay (ELISA). Asymptomatic patients with sickle cell diseases had higher sVCAM-1 levels compared to normal controls ($p<0.001$). Their levels were further elevated during acute episodes. Levels were significantly lower in chronic transfused child patients compared to acute crisis $p=<0.05$).The reduction of adhesive molecule levels observed in our transfused SCD patients offers insight into the mechanism of the protective effect of transfusion against acute crisis especially painful and anemic crisis. sVCAM-1 and sICAM-1 levels inversely correlated with fetal hemoglobin in SCD patients. In conclusion, adhesive molecule expression and cytokine production may also play a role in the disease outcome.

MANAGEMENT OF ACUTE TRAUMATIC DIAPHRAGMATIC RUPTURE

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Abstract

The aim of this work is to describe the diagnostic and therapeutic work-up for the management of 13 blunt trauma cases with acute traumatic diaphragmatic rupture (TDR) in a single institution. This study was conducted at King Saud Hospital (350 beds), Al-Qassim Region, Saudia Arabia. All patients were resuscitated and underwent emergency chest x-ray examination, abdominal ultrasonography (US) and thoraco-abdominal CT. After hemodynamic stabilization, patients underwent exploratory laparotomy through a midline incision to deal with injuries including repair of the diaphragmatic rupture. The study included 13 patients; 11 males & 2 females with a mean age of 38.6 ± 7.6 years. Admission chest x-ray defined 5 cases with TDR; 4 left and one right rupture with a sensitivity rate of 38.5%. Preoperative CT scan was conclusive in 10 cases (including the five cases suggested by chest X-ray) with a sensitivity rate of 76.9%. There was a significant increase ($X^2=3.26$, $p<0.05$) of diagnostic sensitivity with CT in comparison to chest x-ray. Concomitant injuries included liver laceration (n=2), splenic rupture (n=3), bowel injury (n=2), pelvic fractures (n = 4), rupture bladder (n=2), intracerebral hemorrhage (n=2); and traumatic left below knee amputation in one case, either as a solitary injury or in combination. In all cases the diaphragmatic defect was identified, herniated organs were gently reduced and the diaphragmatic defect was repaired using monofilament non-absorbable sutures and chest cavity was drained. Abdominal exploration showed isolated diaphragmatic tear without herniating viscera in 3 (23.1%) cases, herniated stomach in 6 (46.2%) cases, herniated omentum in 3 (23.1%) cases, herniated dome of the right lobe of the liver in one (7.7%) case, herniated spleen in 3 (23.1%) cases and herniated colon in one (7.7%) case, either alone or in combina-

tion. Nine cases had linear diaphragmatic defect, 2 cases had a V-shaped defect, one case had irregular laceration of the diaphragmatic copula and one case had a Y-shaped defect. Two patients died throughout the post-operative follow-up period with a mortality rate of 15.4%. It could be concluded that TDR should be suspected in all thoraco-abdominal trauma and to be looked for during surgical exploration irrespective of the results of preoperative investigations. Chest radiographs and helical CT are the best screening tests for diagnosis of TDR.

MIRIZZI SYNDROME : A DIAGNOSTIC AND SURGICAL PROBLEM

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Abstract

This study was conducted at King Saud Hospital (350 beds), Al-Qassim Region, Saudia Arabia; between December 2000 till May 2005. The aim of this work is to describe a series of 13 patients presented with obstructive jaundice and proved to have Mirizzi syndrome, at a single institution, submitted to surgical treatment and to comment on their aspects with emphasis on the diagnosis and treatment. The following items were evaluated: clinical presentation, laboratory results, preoperative evaluation, operative findings, type of Mirizzi syndrome according to the classification of Csendes et al, 1989, choice of operative procedures, and complications.

The study comprised 13 patients (5 males & 8 females with mean age 58.2±9.3 years) with MS detected out of 1834 patients (0.7%) treated for cholelithiasis during the period of the study. Preoperative radiological examination succeeded in the diagnosis of MS in 6 cases; 2 cases by ultrasonography (15.4%), 4 cases by ERCP (30.8%), one out of 4 cases by CT (25%) and one out of 4 cases by MRCP (25%) and failed to diagnose 7 cases with a success rate of 46.2%. Surgical exploration through a right subcostal incision detected the presence of impacted stone in the infundibulum of the gallbladder or in the cystic duct of the all patients; there were 4 patients (30.8%) with MS type I, 3 patients (23.1%) had MS type II, 2 patients (15.4%) had MS type III and 4 patients (30.8%) had MS type IV. The surgical procedure done was cholecystectomy for patients with type I MS, Cholecystectomy, primary closure of the cholecysto-biliary fistula and T-tube drainage of CHD for patients with MS type II. Patients with MS type III underwent cholecystectomy and choledoch-

duodenostomy, while cholecystectomy and Roux-en-Y hepatico-jejunosotomy were done for patients with MS type IV. Liver function tests returned to normal values in all patients within 43.8 ± 20.7 days (range: 30-70 days postoperatively) and the mean duration of post-operative follow-up was 20.7 ± 12.8 months (range: 6-48 months) with no post-operative major procedure-related complications or mortality.

It could be concluded that MS is an uncommon form of benign obstructive jaundice identified with a frequency of 0.7% of patients with cholelithiasis. The preoperative diagnosis of Mirizzi syndrome is difficult and an awarded suspicion is necessary to avoid injuries of the biliary tree. The problem may only become evident during the operation due to firm adhesions around Calot's triangle. The success of the treatment is related to a precocious recognition of the condition during surgery, and adapting the management according to the individual characteristics of each case.

CONCENTRATION OF TOTAL MATRIX METALLOPROTEINASE-2 IN THE SERUM OF PATIENTS WITH COLORECTAL CANCER

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Abstract

Background : *The processes of basement membrane degradation and remodeling of extracellular matrix (ECM) involves proteolytic enzymes called metalloproteinases. Among the numerous metalloproteinases enzymes of this group the key role is played by matrix metalloproteinase-2 (MMP-2).*

Objective : *The purpose of this study was to evaluate the concentration of soluble MMP-2 in serum of patients with colorectal cancer and the effect of surgical treatment on this parameter in the postoperative period as well as assessment whether MMP-2 serum concentration correlate with clinicopathological variables.*

Patients and Methods : *We measured, prior to primary surgery and 4 weeks after surgery, the concentrations of MMP-2 in serum samples of 40 patients with colorectal cancer. Also the serum concentration of MMP-2 of 10 healthy volunteers was measured. The measurements were performed with enzyme linked immunosorbent assays (ELISA).*

Results : *MMP-2 concentrations are higher in cancer patients than control ($P < 0.001$). The levels of soluble MMP-2 in serum (median of the control cut-off limit) correlated with Dukes' stage ($P = 0.03$), grade ($P=0.04$), and lymph node metastasis ($P = 0.02$). No statistically significant correlation was found between the circulating MMP-2 and the other clinicopathological factors. Comparing the blood serum concentration of MMP-2 before and after operation reveals a significant decrease after radical surgery. Conclusion: Plasma concentration MMP-2 was correlated with clinical staging in colorectal cancer, and falling to the normal range following curative surgery.*

Key words: - MMP-2 - ELISA - colorectal cancer- Dukes' staging.

**ENDOSCOPIC SPHENOIDOTOMY, COMPARATIVE
STUDY BETWEEN TRANSSEPTAL AND
TRANSNASAL APPROACHES**

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Abstract

Sphenoid sinus represents the body of the sphenoid bone and it has an intimate relation to various important structures as the internal carotid artery and the optic nerve. Because of this peculiar situation a lot of approaches had been designed to reach the sphenoid sinus (Rosen et al 2006). The aim of this work is to compare transseptal or transnasal approach as regard safety and conservation of nasal anatomy .

This study was conducted upon 20 patients diagnosed to have sphenoid sinus lesion by endoscopic examination and CT scanning ,10 patients underwent transseptal approach and 10 underwent transnasal one. The postoperative results of the two groups were more or less similar as regard the efficacy of the improvement of the complaints but the transseptal approach was found to be superior to the transnasal one in some points .

IS THE ADDITION OF INTRATHECAL FENTANYL TO HYPERBARIC BUPIVACAINE AFFECTING MATERNAL SPIROMETRIC FUNCTION DURING CEASAREAN SECTION?

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Abstract

Background: Subarachnoid blockade with local anesthetics induces may respiratory depression. Although the addition of fentanyl to bupivacaine has become popular in subarachnoid blockade for Cesarean section, there is no information on the effect of intrathecal fentanyl on maternal spirometric respiratory function in parturients undergoing elective cesarean section.

Methods: We studied the effects of the addition of intrathecal fentanyl to hyperbaric bupivacaine on maternal spirometric respiratory function in 60 parturients undergoing elective cesarean section. The parturients were randomized into two groups: those receiving 2.0 ml of hyperbaric bupivacaine 0.5% and 0.4ml of saline intrathecally (control group) and those receiving 2.0 ml of hyperbaric bupivacaine and 0.4ml of fentanyl (25µg) intrathecally (patients group). We performed spirometry on arriving at the operation room and 15 min after subarachnoid blockade.

Results: Subarachnoid blockade with bupivacaine significantly decreased the peak expiratory flow rate, but did not induce significant changes in vital capacity and forced vital capacity. The addition of intrathecal fentanyl to bupivacaine improved the quality of subarachnoid blockade, but did not lead to deterioration in respiratory function compared with intrathecal bupivacaine alone.

Conclusions: The addition of intrathecal fentanyl to hyperbaric bupivacaine did not lead to deterioration in maternal spirometric respiratory function in parturients undergoing Caesarean section.

FACE RECOGNITION PERFORMANCE WITH A BIOPTIC TELESCOPIC DEVICE

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Abstract

Purpose: To determine to what extent performance in face recognition can be improved using a bioptic device.

Methods: 15 patients with central visual loss were recruited for the study. Their age ranged from 16 to 75 years. Distance visual acuity ranged between 6/24 to 6/120. perceived disability in face recognition was assessed by a four-item questionnaire. These tasks were repeated with the patients using a bioptic telescope.

Results: visual acuity improved in all patients with the use of the bioptic telescope. Mean visual acuity improved from 6/36 to 6/12. Face recognition performance improved in 80% of patients (median gain = 33%).

Conclusion: A bioptic low vision device can offer a significant improvement in performance for face recognition and may be useful in reducing the handicap associated with this disability.

ACID AND BILE REFLUX IN EROSION, NON-EROSIVE REFLUX DISEASE AND BARRETT'S ESOPHAGUS

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Abstract

Background: GERD may occur with acid, bile or in a mixed form. Endoscopic injury and mucosal metaplasia are a known sequelae to pathological GERD.

Aim of the study: to study the contribution of acid and duodenogastroesophageal reflux (DGER) to endoscopic severity in patients with GERD and Barrett's esophagus.

Methods: Ninety-one patients (60 males, 31 females; mean age 36.12 ± 12.65 years) complaining of reflux symptoms underwent upper gastrointestinal endoscopy and graded to non-erosive reflux disease (NERD), erosive reflux disease (ERD) and Barrett's esophagus (BE). Esophageal manometry and simultaneous ambulatory 24-h esophageal pH and bilirubin monitoring (Bilitec 2000) were done to all patients.

Results: Seventy one patients (78.0%) had ERD (Savary-Miller (grade I-III), 11 patients (12.1%) had NERD and 9 patients (9.9%) had BE by endoscopy.

Combined 24-h esophageal bilirubin and pH monitoring revealed that: 39 patients (42.9 %) had mixed acid and bile reflux, 16 (17.6%) had pathological acid reflux only, 18 (19.8%) had bile reflux only and 18 patients (19.8 %) had no evidence of abnormal reflux.

The percentage of the total time that bilirubin absorbance was ≥ 0.14 , in 71 patients with ERD was (8.18 ± 11.28 %), and in 9 patients with BE was (15.48 ± 30.48 %) which was significantly greater than that in 11 patients with NERD (4.48 ± 8.99 %), $p < 0.05$ and $p = 0.01$ respectively.

All BE patients had abnormal esophageal bile reflux (3 bile alone and 6 mixed bile and acid); 44 of 71 patients (61.97 %) with ERD had abnor-

mal esophageal bile reflux (13 bile alone and 31 mixed bile and acid); meanwhile 15 of them (21.2%) had abnormal acid exposure alone. Despite having NERD, 4 patients (36.4%) had abnormal esophageal bile reflux, two of them mixed with acid.

Conclusion: Mixed reflux (acid and bile) is the chief pattern of reflux in GERD patients.

Bile reflux either alone or in a mix with acid reflux contributes to severity of erosive, non-erosive reflux disease as well as in Barrett's esophagus.

KEY-WORDS: Acid and bile reflux, erosive reflux disease, non-erosive reflux disease and Barrett's esophagus

ABBREVIATIONS: Duodenogastroesophageal reflux (DGER), Gastroesophageal reflux disease (GERD), Non-erosive reflux disease (NERD), Erosive reflux disease (ERD), Barrett's esophagus (BE), Duodenogastric reflux (DGR) and Lower esophageal sphincter (LES)

HISTOPATHOLOGICAL AND DOPPLER FINDINGS IN CHILDREN WITH LIVER CIRRHOSIS : A CORRELATION STUDY

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Abstract

Background and objectives: Cirrhosis is an end stage state of virtually any chronic liver disease. There is great clinical interest in establishing the diagnosis of liver cirrhosis in children by non-invasive means. The aim of this work is to study the correlation between Doppler ultrasound parameters and hepatic histopathological findings in children with liver cirrhosis in an attempt to test the efficacy of these parameters as non-invasive means in diagnosis of cirrhosis. Patients and methods: Twenty two children admitted to Liver Institute, Menoufiya university for evaluation of unknown liver disease were examined prospectively and blindly with Doppler ultrasound prior to liver biopsy. Doppler studies were also preformed on 20 control subjects. Patients only were later subjected to liver biopsy. Results: Histopathological examination of the biopsy specimens showed established cirrhosis in 11 of 22, early cirrhosis in 5 of 22, and no cirrhosis in 6 of 22 children. In patients group, the portal vein velocity was decreased ($p < 0.05$), the hepatic artery velocity was increased ($p < 0.05$), and the arterio-portal velocity ratio was increased ($p < 0.05$) relative to the controls. Also, loss of reverse flow component was present in all established cirrhotic patients. For the criteria of the early and established cirrhotic patients, the sensitivities of the loss of reverse flow component in the hepatic vein, portal vein velocity being less than 20 cm/s, hepatic artery velocity being more than 60 cm/s, arterio-portal velocity ratio being greater than 3.0 were 68.7%, 68.7%, 87.5% and 81.2%

respectively. In established cirrhotic patients, the sensitivities of all parameters were 100%. In early cirrhotic patients, the sensitivities of hepatic artery velocity being more than 60 cm/s and arterio-portal velocity ratio being greater than 3.0 were 60% and 40% respectively. Conclusion: Indicators of parenchymal compliance (LRFC), outflow obstruction (decreased PVV) and arterialization (increased HAV, alteration in APVR) were accurate in the diagnosis of established cirrhosis. Also, HAV and APVR were useful in the diagnosis of early cirrhosis. We believe that on the basis of our data, afferent and efferent flow abnormalities monitored with Doppler ultrasound may be useful in the assessment of Patients with liver cirrhosis.

Key words: Pediatric - Doppler ultrasound - cirrhosis - liver biopsy.

THE ROLE OF DIAGNOSTIC LAPAROSCOPY IN MANAGEMENT OF THE PATIENTS WITH BLUNT ABDOMINAL TRAUMA

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Abstract

Abdominal trauma may result in a variety of intra-abdominal injuries, ranging in severity from mild to life threatening. Nowadays, the choice of investigation and management depends primarily on the haemodynamic stability of the patient. Ultrasound (U/S), diagnostic peritoneal lavage (DPL) and Laparoscopy are widely used in the diagnosis of blunt abdominal trauma (BAT).

Historically, exploratory laparotomy was done for the patient clinically suspected to have intra-abdominal organ injury following blunt abdominal trauma.

If following initial survey and assessment, abdominal signs continue to be equivocal, laparoscopy provides the most definitive early evaluation technique.

In this study, 60 patients with history of blunt abdominal trauma were included. Diagnostic laparoscopy failed to detect splenic injuries in 2 patients out of the 60 patients studied because of a large clot in the left upper quadrant, 48 patients were exposed to laparotomy. The most common findings in those 48 patients were isolated liver injuries in 20 patients (33.3%) followed by isolated splenic injuries in 6 patients (10%).

DPL and US can be performed for patients with BAT while they are being resuscitated. Conservative treatment in properly selected patients has become the standard. Among 15 patients who were chosen to be treated conservatively, twelve patients underwent conservative treatment in this study with a success rate of 80% and three patient needed an exploratory laparotomy due to haemodynamic instability that developed during the follow-up period.

Abdominal ultrasonography has proved to be of little value in deciding the possibility of conservative treatment due to inability to detect the grade of solid organ injury. DPL has no role in conservative treatment of blunt abdominal injuries.

Conclusion: *Early identification of significant intra-abdominal injuries is necessary for the successful management of blunt abdominal trauma, because delay in diagnosis can lead to significant morbidity and mortality.*

The rapidly increasing role of diagnostic and therapeutic laparoscopy in current surgical practice prompted us to investigate the potential role of this procedure in the assessment and management of stable patients with U/S evidence of solid organ injury (SOIs) after blunt abdominal trauma. Laparoscopy decreases the rate of unnecessary laparotomies in abdominal trauma and helps to diagnose injuries of solid organs.

Frequent clinical evaluation of the patients' condition, ultrasonography and DPL are complementary and important in the diagnosis and management of the patients with abdominal trauma.

CARDIORESPIRATORY FITNESS AND PULMONARY FUNCTIONS IN ATHLETES AND NON-ATHLETES ADULTS

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Abstract

Pulmonary ventilation is generally known to have a linear relationship with oxygen consumption at different levels of exercise. Lung function parameters tend to have a relationship with lifestyle such as regular exercise and non-exercise. Our main aim was to explore the relation between exercise, body mass index and lung function as well as cardio-respiratory fitness.

A total of 39 male students from the University of Taibah volunteered in the study, aged 18-24 years (19.7 ± 1.37). The subjects were divided into two groups, 20 were athletes who had exercised regularly in the past few years as a players in volleyball, handball, football and swimming teams, and the remaining 19 served as controls were non-exercising, and non-athletes. The weight and height were measured to determine the body mass index (BMI) and the lung functions were tested by spirometer (Forced vital capacity, FVC, and forced expiratory volume in the first second FEV1%), and Cardio-respiratory fitness was measured by a maximal treadmill test (MTT).

FVC, and FEV, but not FEV1/FVC% was significantly higher in athletes than non-athletes. MTT was found to be significantly different in athletes when compared to the non-exercising group. Subjects who were athletes with significant low (BMI) was associated with better cardio-respiratory fitness and respiratory function.

The results showed that exercise and body mass index are associated with better cardio-respiratory fitness, but respiratory function contributed little to this association in athletes and non-athletes

ARTHROSCOPIC SUTURE ANCHOR REPAIR FOR ROTATOR CUFF TEARS

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Abstract

Twenty six patients of rotator cuff tears were treated arthroscopically and the rotator cuff repair was done by using suture anchor technique. The arthroscopic suture anchor repair for the rotator cuff tears has been accepted as a non aggressive technique with excellent (69%) and good (19%) results and rapid recovery; however the technique needs a long time of well training.

DETECTION OF BORDETELLA PERTUSSIS BY PCR IN INFANTS WITH RESPIRATORY FAILURE

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Abstract

BACKGROUND: *Despite being under-reported, Bordetella pertussis infection remains a severe disease of high incidence world-wide. No cases were reported in Egypt since 2001. Different immunization protocols exist in different countries with variable vaccination coverage ratios.*

DESIGN AND SETTINGS: *This prospective investigational study was conducted in the PICU of Mansoura University Children Hospital, Mansoura, Egypt*

AIM OF WORK: *identifying cases of B. pertussis infection among mechanically ventilated infants presenting with respiratory failure and features compatible with pertussis (bronchopneumonia, apnoea, acute life threatening event).*

PATIENTS AND METHODS: *Infants less than one year of age were enrolled over a period of 12 months. Sixty one specimens of endotracheal secretions were examined by PCR for the presence of a 262-bp target sequence from IS481 specific for B. pertussis.*

RESULTS: *Nine specimens were positive for B. pertussis, five infants in this group did not survive. All non survivors were younger than 6 months of age. Infants in the PCR-positive group had a younger age ($p = 0.038$), a longer duration of illness prior to PICU admission ($p < 0.01$) and a higher mortality rate ($p = 0.045$) compared to the PCR - negative infants.*

CONCLUSION: *It is crucial to raise awareness, among medical professionals, of clinical picture, complications and treatment of pertussis. If immunization program of Egypt was to be reviewed, there may be a need for a more accelerated primary immunization program against pertussis with booster doses for young adults.*

THE LMA-PROSEAL VERSUS ENDOTRACHEAL INTUBATION FOR ELECTIVE LAPAROSCOPIC CHOLECYSTECTOMY

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Abstract

Background: The aim of this study was to evaluate the effectiveness of laryngeal mask airway -ProSeal as compared to endotracheal intubation during laparoscopic cholecystectomy as regards pulmonary ventilation and respiratory events at emergence.

Methods: Forty patients aged 18 years or above, ASA 1 or 2 subjected to laparoscopic cholecystectomy under general anesthesia were included. Patients with a history of hiatus hernia, gastroesophageal reflux or diabetes mellitus were excluded

Patients were randomized into two groups:

Group 1(LMA-PS)(Laryngeal mask airway ProSeal): LMA-PS size 3 for female and size 4 for male patient were used. The cuff was inflated with air in 2-3ml increments until effective airway was obtained.

Group 2(ETT)(Endotracheal tube): Cuffed ETT size 7mm for female and 8mm for male patient were used and inflated the cuff until no leak was audible.

After preoxygenation with 100% oxygen for 3 minutes, anesthesia was induced with 20mg lidocaine, 2-2.5mg.kg⁻¹ propofol, 1-2ug.kg⁻¹ fentanyl and vecuronium 0.05mg .kg⁻¹ . Positive pressure ventilation (PPV) was not used until after insertion of LMA-PS or ETT. Anesthesia was maintained with 50%nitrous oxide in oxygen, sevoflurane 1-3%. We started with 6L.min⁻¹ fresh gas flow to be reduced to 3L.min⁻¹ closed circuit. Incremental doses of vecuronium and fentanyl was given as required. Minute volume and Fio2 were adjusted to maintain SpO2 ≥94% and PETCO2≤45mmHg. If effective airway could not be maintained for 90 seconds or SpO2<94% or the PETCO2 >45mmHg at any time of the proce-

dure, the LMA-PS will be shifted to ETT.

Insufflation time, total anesthetic time, regurgitation (clear or bile stained fluid) and respiratory events at extubation (cough, laryngeal spasm, the need for PPV, tracheal intubation) were recorded and compared in both groups.

Results: Our study showed that the incidence of respiratory events at extubation were significantly less in group 1 (LMA-PS) as compared to group 2. There was insignificant difference as regard ventilation parameters in both groups and was within normal physiological range.

Conclusion: The use of Laryngeal mask airway ProSeal is associated with less incidence of respiratory events at recovery compared to endotracheal intubation and both were effective as regard pulmonary ventilation during laparoscopic cholecystectomy.

Key words : Laryngeal mask airway ProSeal; endotracheal intubation; laparoscopic cholecystectomy.

EXTUBATION FAILURE: A STUDY OF RISK FACTORS AND OUTCOMES IN AN EGYPTIAN PICU

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Abstract

Objective: To determine failed extubation rate, risk factors, and consequences of extubation failure in paediatric intensive care unit (PICU) in Mansoura University Children's Hospital (MUCH).

Design: Twelve-month prospective, observational, clinical study. The study extended from Dec 2004 to Dec 2005

Setting: PICU in MUCH.

Patients: Ninety two children (43 girls, 49 boys), age 1-83, months were enrolled. Neonates, post surgery, tracheostomy, non invasive ventilation and unplanned extubation were the exclusion criteria. Sixty six children were directly extubated from 2 level pressure ventilation and 26 children underwent a spontaneous breathing trial before extubation. The diagnoses were; respiratory conditions (n=41), cardiac conditions (n= 30), neurological conditions (n=18) and miscellaneous conditions (n=3).

Results: The extubation failure rate was 25% (23/92). Patients failing extubation had a longer mechanical ventilation prior to attempted extubation (p=.002), higher cumulative fluid balance (p= .001) and a lower serum K⁺ (p<.001). Logistic regression revealed only the last two variables independently predicted extubation failure. Among the 66 children with SBT, tidal volume on spontaneous breaths and the fraction of mandatory minute volume to total minute volume were, with the previous three parameters, independent predictors of extubation failure. Children who failed extubation had higher mortality (43.5%) compared to 8.7% in the group with successful extubation (p<.001). Survivors had a longer PICU stay in the failure group (median 14.5, IQR 8 days) compared to the success group (median 9, IQR 5 days) with p<.001.

Conclusion: The variables associated with extubation failure have to be considered during extubation trying to reduce the high extubation fail-

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ure rate. The burden of extubation failure needs to be evaluated in terms of ventilation days and financial cost.

RUBBER TUBE VERSUS SILICONE TUBE AT THE OSTEOTOMY SITE IN DACRYOCYSTORHINOSTOMY

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Abstract

Purpose: To compare the efficacy of using rubber versus silicone tubes at the osteotomy of Dacryocystorhinostomy.

Method: 46 patients diagnosed with primary acquired nasolacrimal duct obstruction were assigned randomly to rubber, silicone or control group. The surgical procedures in the three groups were the same except that in patients of rubber and silicone groups, rubber or silicone tubes were placed at osteotomy opening and removed after 3 months. Transnasal endoscopic findings were recorded at the completion of surgery and at 3 months, 6 months and 9 months after surgery for the 3 groups. A computer aided digitizer was used to calculate the surface area of the osteotomy site.

Results: After removal of their tubes 3 patients in the rubber group had recurrent epiphora (78.0% success), one patient in silicone group (92.86% success) and 4 patients in control group (77.8% success).

The average final surface area of the osteotomy opening of patients with rubber group at the end of follow up was (9.85 mm²) in the silicone group was (17.47mm²) whereas in the control group was (8.56mm²).

Conclusion: Silicone tube more better than rubber one in maintaining effective larger osteotomy after Dacryocystorhinostomy. This can improve the long term success of the operation.

**AN INSIGHT ON SERUM LEVELS OF
HEPATOCTE GROWTH FACTOR AND
ANTI-PLATELET ANTIBODIES IN VARIOUS
HEPATIC INSULTS AND THEIR CORRELATION
WITH CONCOMITANT THROMBOCYTOPENIA**

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Abstract

Many recent studies have shown that hepatocyte growth factor (HGF) is a potent mitogen in vivo. HGF play an important role in liver regeneration because it is increased after liver injury and higher levels are maintained in serum during liver regeneration. This study was designed to evaluate serum levels of hepatocyte growth factor (HGF) and blood positivity for anti-platelet antibodies (APA) in children with acute and chronic liver diseases (CLD) of varied etiology and to correlate their levels with concomitant thrombocytopenia. The study included 50 patients and 20 control children. There were 20 patients with acute viral hepatitis (AVH) and 30 patients with CLD [10 chronic viral hepatitis, 10 metabolic liver diseases, and 10 autoimmune liver diseases]. Venous blood sample was collected for complete blood count, liver function tests and for ELISA estimation of serum HGF and detection of blood positivity for APA. All liver function tests were significantly ($p < 0.05$) increased in patients compared to control. Platelet count was significantly ($p < 0.05$) decreased in patients with chronic viral hepatitis (CVH) and autoimmune LD compared to both control and AVH groups. Serum HGF level was significantly elevated in all patients ($P1 = 0.006$) compared to control levels and in patients with autoimmune LD compared to patients with AVH ($P2 = 0.013$), CVH ($P3 = 0.02$) and metabolic LD ($P4 = 0.03$). There was a positive significant correlation between serum levels of HGF and serum total bilirubin, ALT and blood positivity for APA. The APA was detected in 25 patients' blood samples with a significantly higher frequency in patients with autoimmune LD. Using the receiver operating characteristic (ROC) curve analysis revealed

that blood positivity for APA is a specific, while thrombocytopenia is sensitive indicators for liability of occurrence of bleeding episodes. It could be concluded that serum levels of HGF were elevated in all forms of hepatic insults and correlate with the extent of hepatic derangement as judged by serum levels of total bilirubin and serum ALT. Moreover, 50% of patients with chronic liver diseases were found positive for APA that correlate with serum levels of HGF and the extent of concomitant thrombocytopenia and could be considered as a specific predictor for the occurrence of bleeding episodes in these patients.

**SERUM GAMMA INF INDUCING FACTOR (IL18)
LEVELS IN PATIENTS WITH CHRONIC
LIVER DISEASE**

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Abstract

Interleukin 18 (IL18) is likely to play a role in inflammatory liver disease, it is currently regarded as the primary inducer of INF gamma in inflammatory reaction, in chronic hepatitis C a significant up regulation of IL18 in the inflammatory infiltrate has been demonstrated. The study aimed to evaluate the serum levels of IL18 in patients with chronic liver disease and to assess its role in the clinical outcome of patients with liver injury.

The cohort consisted of 60 subjects age ranged from 32-65 ys, they were stratified into 4 groups;

G1: 15 patients with chronic liver diseases.

G2: 15 patients with liver cirrhosis

G3: 15 patients with Hepatoma.

G4: 15 healthy subjects serving as control. Beside full routine laboratory tests. The patients were tested for autoantibodies (ANA,SMA,AMA) ,viral markers and determination of IL18 serum by ELISA.

At presentation a significant increase of serum IL18 was found in all groups compared to control, in addition IL18 was significantly higher in G3 than G2, furthermore it was significantly higher in G2 than G1. Moreover IL18 showed also a significant positive correlation with AST,ALT,TB,DB. in contrast a negative correlation was detected with albumin and PT

It can be concluded that IL18 is likely to be involved in the pathogenesis of human liver diseases.

PERIPHERAL NEUROPATHY IN HEPATITIS C PATIENTS IN EGYPT

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Abstract

The overall prevalence of HCV antibodies in the general population is around 10-15 % and is highly prevalent among Egyptian blood donors. The study was carried out on 30 patients, there was (21 male and 9 were female) age ranged from 27-62 ys with proved HCV infection by means of positive antibody assay for the virus and positive PCR for HCV RNA. The current study aimed to evaluate the role of HCV in peripheral neuropathy (PN) and to assess the response of PN to medical treatment. PN was assessed clinically by motor and sensory examination. Beside routine clinical and laboratory tests, electrophysiological studies were also done. At presentation, sensory axonal degeneration neuropathy was the most prevalent type of neuropathy in the studied HCV subjects, in addition male HCV -patient are slightly more subjected to the development of HCV- associated peripheral neuropathy furthermore. Peroneal nerve conduction velocity was found to be impaired more than that of median nerve. Interestingly the presence of ascites had no significant effect on the degree of nerve conduction. The underlying mechanism of such peripheral neuropathy is mostly due to axonal degeneration. We therefore conclude that HCV- associated neuropathy had mainly a chronic evolution. PN manifestations can be the initial presenting manifestation of HCV infection.

MESH PLUG REPAIR FOR UMBILICAL AND PARAUMBILICAL HERNIAS

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Abstract

Purpose: The use of a mesh plug in hernia repair is not a new concept. This study describes and evaluates the application of a prolene mesh plug in the repair of umbilical and para-umbilical hernias.

Patients & methods: Thirty-two patients with umbilical and paraumbilical hernias were subjected for operative intervention using mesh plug technique under spinal, general or local anaesthesia. After dissection of hernial sacs and reduction of contents, a prolene mesh plug was inserted into the defect and fixed with 2/0 prolene sutures in four quadrants. Operative time, complications, length of hospital stay, anaesthetic used, analgesia required, duration of drain, patient's return to activity and satisfaction were recorded.

Results: Mean operative time was 36 ± 7 min and mean hospital stay was 20 ± 4.5 hours. The patients regained their normal activities after 9 to 16 days. Seven patients (21.9%) received non-narcotic analgesics (Diclofenac), all of them were of general anaesthesia group, no haematoma formation, no wound dehiscence. Seromas formed after removal of drains in 2 patients (6.3%) and aspirated once. Twenty-five patients (78.1%) were satisfied and 7 patients (21.9%) were dissatisfied because of pain {2 (6.25%)}, infection {1 (3.125%)} and recurrence {2 (6.25%)}.

Conclusion: Mesh plug repair of umbilical and PUH is a simple, easy and satisfactory technique with short convalescence, less recurrence and good patient's satisfaction.

Key words: Ventral hernia, umbilical hernia, mesh repair.

**EVALUATION OF TISSUE PLASMINOGEN
ACTIVATOR INHIBITOR-1 AND FIBRINOGEN
IN CHRONIC RENAL FAILURE UNDER
REGULAR HAEMODIALYSIS**

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Abstract

This study was conducted to obtain information on the tissue plasminogen activator inhibitor-1 (PAI-1) and fibrinogen levels in chronic renal failure patients on regular haemodialysis in a trial to find out any changes that might contribute to thrombosis and bleeding.

This study was conducted on 40 chronic renal failure patients on regular hemodialysis (HD) thrice weekly four hours each, with acetate based dialysate for about 1-13 years prior to the study.

The study group consisted of 20 men and 20 women, 27 to 73 years old. The hemodialysis prescription was 12 to 13.5 h/wk, with the use of 1.1 - to 1.3 m² cuprophane hollow - fibre dialyser. The dialyzers were not reused. In addition to 10 healthy volunteers with matched age and sex as a control group.

The main causes of chronic renal failure were hypertensive glomerulosclerosis and diabetic nephropathy disease in most of the patients.

All patients were anuric and under treatment by heparin on the dialysis sessions ranging from 7500 - 15000 IU.

Hemodialysis (HD) was performed with volumetrically controlled machines.

In our work the assessment of plasma fibrinogen levels in the study group are significantly increase after haemodialysis in comparison to before haemodialysis ($P \leq 0.001$).

However plasma fibrinogen levels showed non significant change be-

tween study group and control group ($P > 0.05$).

In this study plasma plasminogen activator inhibitor -1 (PAI-1) levels revealed high significant decrease after haemodialysis in comparison to before haemodialysis ($P < 0.001$).

Plasma plasminogen activator inhibitor-1 (PAI-1) levels revealed significant decrease before and after haemodialysis compared to controls ($P < 0.001$).

In conclusion: coagulation and fibrinolysis are enhanced on regular haemodialysis treated (RDT) patients, a majority of patients on dialysis are in a hemostatic disturbance state, which need careful adjustment of an anticoagulant regimens, by the lowering of plasma level of tissue plasminogen activator inhibitor-1 (tPAI-1), there is tendency to bleeding rather than thrombosis in regular haemodialysis treatment patients.

MONITORING AND STRATIFICATION OF RENAL FUNCTIONS IN PATIENTS WITH CHRONIC HEPATITIS C VIRUS INFECTION

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Abstract

Hepatitis C virus (HCV) infects more than 170 million people worldwide and around 20% of blood donors are seropositive by ELIZA to HCV Ab in Egypt. Renal manifestations may be the presenting features of chronic HCV infection. This work was carried out on 200 patients with chronic HCV in order to study the relationship between HCV and chronic kidney disease and to stratify HCV patients according to the degree of albuminuria. It showed that screening for proteinuria in patients with chronic HCV is necessary due to high prevalence of renal affection in these patients. Assessment of microalbuminuria should be done in these patients as an early indicator for renal affection. Albumin creatinine ratio (ACR) had a good reliability as a surrogate measure for routine screening of urine albumin excretion. Awareness of chronic kidney disease (CKD) stage in patients with HCV and renal affection help prediction and early management of renal disease. There was a documented link between cryoglobulinemic and non-cryoglobulinemic membranoproliferative glomerulonephritis and HCV infection.

THE PATTERN OF COMMON HAEMOGLOBINOPATHIES AMONG ANAEMIC PATIENTS IN EASTERN PROVINCE OF SAUDI ARABIA

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Abstract

Haemoglobinopathy is a collection of a number of diseases, including sickle-cell disease and thalassemia. Several reports indicate that haemoglobinopathies with or without G6PD are the most common genetic abnormalities in the population of the Arabian- Peninsula. However the exact frequencies of neglected cases of these abnormalities among anaemic patients have not yet been determined. 1372 patients were selected from those who attending the out patients from multicenter clinics in Eastern Province of Saudi Arabia. . No one of our patients had been diagnosed for haemoglobinopathies or other chronic diseases. The control groups were as following: 152 children who attended the pediatric clinics for general checkup; 84 adult females; and 92 adult males who attended for blood donation. All individuals were subjected for the following tests: (1) complete blood picture and blood smear, (2) HB electrophoresis, (3) Sickling test, (4) G6PD screening, (5) G6PD assay for positive screening cases (6) anemia test panel including serum iron, serum ferritin, and total iron binding capacity. The highest prevalence of haemoglobinopathies is sickle cell diseases. The carriage of at least one of S allele was 41.9%. The second commonest haemoglobinopathies in this study was beta thalassemia represent about 23.46% of total haemoglobinopathies. The third commonest haemoglobinopathies were hereditary persistent fetal haemoglobin (HPFH) and G6PD representing about 15% and 10.26% respectively. Significant differences of haemotological parameters were observed among haemoglobinopathies compared with control groups. Our results suggest

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*the importance of screening tests of Haemoglobinopathies in individuals
in Eastern region of Saudi Arabia.*

**IS INHALATIONAL ANESTHESIA USING
SEVOFLURANE VS. DESFLURANE AS THE
MAIN INHALED ANESTHETIC VIA A LARYNGEAL
MASK AN IDEAL ANESTHETIC TECHNIQUE
FOR ONE DAY SURGERY?**

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Abstract

Background: Sevoflurane has become widely used in day surgery; however, desflurane may be a valuable alternative even in this setting. This study compares emergence from anaesthesia for day surgery with spontaneous breathing using either desflurane or sevoflurane.

Methods: This prospective, randomized, single-blinded study examined 70 ASA I-II patients undergoing elective ambulatory varicose vein surgery. Primary endpoint was emergence time (cessation of anaesthetic gas to communicating). Secondary endpoints included post-operative pain, nausea, time to discharge, and patient satisfaction. Patients were anaesthetized according to a standardized protocol including multimodal analgesia and antiemetic therapy and were randomized to receive sevoflurane or desflurane as the main anaesthetic while breathing spontaneously through a laryngeal mask airway. Fresh gas flow was oxygen in air 1: 2 L/min.

Results: Intra-operative anaesthesia was uneventful apart from airway irritation observed in 5/35 desflurane and 1/35 sevoflurane patients. Emergence was 25-40% faster in patients anaesthetized with desflurane. Pain and post-operative nausea and vomiting (PONV) were equally infrequent in both groups.

Conclusion: Desflurane is associated with a faster emergence with no differences during the post-operative course except a somewhat higher incidence of airway irritation.

**ULTRASOUND BIOMICROSCOPIC STUDY OF
ANTERIOR SEGMENT CHANGES AFTER
PHACOEMULSIFICATION AND
INTRAOCULAR LENS IMPLANTATION**

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Abstract

Purpose: To study the changes in anterior segment configuration after phacoemulsification and intraocular lens implantation by means of ultrasound biomicroscopy (UBM).

Patients and methods : Fifteen eyes of 15 patients with senile on pre-snile cataract and no other illness were participate in this work. All patients were examined with UBM before and one month after surgery. At each UBM examination, central anterior chamber depth (ACD1), depth from the cornea to the pupillary plane (ACD2), angle opening distance at 500 micron from scleral spur (AOD500) and trabecular iris angle (TIA) were recorded.

Results : Central anterior chamber depth increased after surgery as well angle opening distance and trabecular iris angle at 500u from scleral spur.

Conclusion: After phacoemulsification, UBM revealed that deepening of the anterior chamber and widening of its angle occurred. This finding may be of clinical importance in patients with closed angle glaucoma.

**DAY THREE SERUM FOLLICLE STIMULATING
HORMONE (FSH) AND ESTRADIOL (E2)
LEVELS IN WOMEN WITH UNEXPLAINED
RECURRENT PREGNANCY LOSS**

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Abstract

In a trial to determine the potential role of diminished ovarian reserve in unexplained pregnancy loss (RPL), we have studied sixty one patients having either unexplained RPL (n = 39) and control group (n = 32).

Day 3 serum FSH and E2 were measured in each case and compared for both groups.

Day 3 serum FSH and E2 were found to be significantly elevated among study group thus diminished ovarian reserve may contribute to recurrent pregnancy loss and can be included in the work up for RPL.

Key Words: Recurrent Pregnancy Loss (RPL), Ovarian reserve.

POSTOPERATIVE HYPERTONIC SALINE (7.5%) FLUID THERAPY IMPROVES SURGICAL OUTCOME OF COLORECTAL SURGERY

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Abstract

This study aimed to investigate the effects of postoperative administration of 7.5% hypertonic saline (HTS) on fluid balance and surgical outcome after open resection of colorectal carcinoma. The study included 30 patients randomly allocated into 2 equal groups: HTS group and control group (CG) according to postoperative fluid therapy regimen. Patients in CG were continuously transfused with Ringer lactate (RL) solution and in HTS group patients received 4 ml of 7.5% HTS/kg body weight once at time of transport to the ICU and once on the 1st POD and were continuously transfused with RL solution so as to keep stable hemodynamics and enough urine outputs. The fluid volumes transfused and discharged (urine & drains) were recorded and fluid balance (=input-output) was calculated. Serum sodium concentration was checked every 6 h; postoperative complications and duration of postoperative hospital stay were reported. Postoperative HTS fluid therapy significantly ($p < 0.05$) reduced the total amount of fluid input and increased urine output in HTS group compared to CG during both the operative day and the 1st postoperative day (POD). During the operative day, all patients had positive fluid balance with a significant ($p < 0.001$) increase in retained fluid in CG compared to HTS group. On the 1st POD, 5 patients (33.3%) in HTS group had negative fluid balance and 10 patients had positive fluid balance, on contrary, all patients included in CG still had positive fluid balance with a significant increase of excess fluid in CG compared to HTS group. Postoperative mean serum sodium concentration, in HTS group, was non-significantly ($p > 0.05$) higher compared to their preoperative concentration and returned to near its preoperative concentration at the end of the 1st POD. The mean

duration till passage of first flatus was significantly ($p=0.001$) shorter in HTS compared to CG. Wound infection was reported in 3 patients in control and 2 in HTS group; prolonged postoperative ileus for 6 days in 3 patients in CG, one patient in CG had anastomotic line dehiscence and re-explored and one patient in HTS group developed postoperative chest infection. The mean postoperative hospital stay was significantly ($p=0.01$) prolonged in CG (8.5 ± 3.6) compared to HTS group (5.3 ± 1). It could be concluded that postoperative administration of HTS (7.5%) in dose of 4 ml/kg minimized the postoperative positive fluid balance and reduced the amount of fluid therapy and could improve the outcome of colorectal surgery.

VOICE OUTCOME WITH PROVOX PROSTHESIS AFTER TOTAL LARYNGECTOMY

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Abstract

Background: *The treatment and method of rehabilitation of laryngeal cancer depends on the clinical staging and site of the tumour .The early detection of laryngeal cancer and less tissue loss leads to good results of rehabilitation.*

Current methods of vocal rehabilitation after total laryngectomy include development of esophageal speech, use of electro-larynx and Tracheoesophageal fistula with prosthesis. Also the early detection of laryngeal cancer will make a minor tissue loss after procedures, and so limit the problems of rehabilitation (speech and swallowing).

Objectives : *The aim of this study is to compare the voice results of patients who underwent: total laryngectomy with provox prosthesis and conservative laryngectomy.*

Material and Methods : *This study included 2 groups; 19 patients who underwent laryngectomy for control of laryngeal carcinoma subdivided into 2 groups according to surgical procedures(9 patients with total Laryngectomy with provox processes and10 patients with conservative laryngectomy and 6 normal as control group.*

Results: *After voice analysis for the two test groups and comparison to the control group, there was significant difference between conservative group and provox group as regards intelligibility score and number of words per minute and also Shimmer and noise to harmonic tests.*

Conclusion: *of this study showed that conservative laryngectomy group is relatively better than provox group in many parameters of analysis; this may be due less tissue loss in conservative group.*

STUDY OF SOME NEUROLOGICAL DISORDERS IN PERIPHERAL ARTERIAL DISEASE PATIENTS

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Abstract

Objective : Peripheral arterial disease (PAD) is most commonly a manifestation of systemic atherosclerosis. This study was designed to investigate some neurological aspects like silent stroke, cognitive function and peripheral neuropathy in PAD patients. Methods: twenty five PAD patients were selected from Benhna University Hospital. All patients underwent complete clinical evaluation with computerized tomography of the brain, electrophysiological study (nerve conduction velocity of upper and lower limbs) and neuropsychological assessment by mini-mental state, digit span and trail making test. Results : PAD patients had increase risk of silent stroke as (28%) of our patients have silent stroke on computerized tomography. Peripheral neuropathy was present in (48%) (12 out of 25 patients) and a total of 8 patients (32%) had pathological values with statistically significance difference between PAD patients and control group. Also, PAD patients performed significantly more poorly than control in cognitive function tests. Conclusion: PAD patients had more common comorbid Neurological disorders like silent stroke, peripheral neuritis and cognitive decline and thus emphasizing the need for enhanced more preventive measures and early detection of this silent disorder.

HOT VERSUS COLD TONSILLECTOMY

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Abstract

Tonsillectomy is one of the most commonly performed otolaryngology procedures. Several techniques for this procedure have been described including blunt dissection, electrocautery, laser, electro-surgical scissors, coblation and ultrasonic dissection. Therefore this study was done to show the comparison between Coblation Tonsillectomy using (ENTEC EVAC 70; ARTHROCARE) and Traditional Dissection technique in a prospective, blinded fashion. This study was done on 30 children between 5 and 12 years of age with recurrent acute tonsillitis. Each participant had one tonsil removed by coblation and the other by traditional technique. We recorded, by side, the surgical time, blood loss, operative difficulty, pain in post-operative days (1, 2, 3, 5, 7, 10, 14) and the side that each patient preferred. Coblation tonsillectomy was found significantly less painful than dissection tonsillectomy on day 1 ($P < 0.001$), day 2 ($P = 0.003$) and day 3 ($P = 0.98$). For all subsequent postoperative days, there was no significant difference in pain levels between the two techniques. The coblation side was preferred by 26 of 30 patients.

**PERSISTENCE OF ANTI - HBS ANTIBODIES
IN HEALTHY EGYPTIAN CHILDREN AND
RESPONSE TO BOOSTER DOSE OF
HEPATITIS VACCINE**

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Abstract

Long-term protection against hepatitis B virus (HBV) is dependent on persistence of anti-HBs antibodies and/or strong immunological memory. In this study we evaluated the persistence of anti-HBs antibodies in healthy children aged 4 - 12 years after primary vaccination and the response to a booster dose using recombinant hepatitis B vaccine. Totally, 182 children who had received primary course of hepatitis B vaccine at 2, 4 and 6 months of age were included in this study. Anti-HBs levels were measured using enzyme-linked immunosorbent assay (ELISA) quantitative method to evaluate the immunogenicity of the vaccine. Children with anti-HBs levels < 10 m IU/ml were revaccinated with a pediatric dose of recombinant HB vaccine (0.5 ml: 10 µg) intramuscularly. After 4 weeks their anti-HBs levels were reevaluated to test the response. All children displayed an anamnestic antibody response when tested 4 weeks after the booster dose. The mean anti-HBs levels before and 4 weeks after injection were 2.8 and 108.7mIU/ml respectively. There was a significant negative correlation between age of the children and the prebooster antibody titre, while the age had no effect on the response of children to the booster vaccine. Other host related factors such as gender, BMI, which could produce variability in immune response, showed no significant correlation with prebooster or anamnestic anti HBs response.

Conclusion: In spite of declining levels of anti-HBs the subjects usually exhibit signs of well preserved B cell memory, they respond rapidly to a booster vaccination. Currently there is no reason to offer booster doses of hepatitis B vaccine within the first 12 years of age.

HEARING LOSS IN DIVERS IN RED SEA

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Abstract

Background: As the popularity of Scuba diving (diving with self contained underwater breathing apparatus) continues to grow, scientists are better able to determine what the long-term effects on the human body, the group at high risk for adverse effects is professional divers making repeat deep dives with shortened decompression times. The most well-known injuries of diving are dysbaric osteonecrosis, hearing loss, and permanent neurological deficits, usually the result of a decompression accident; these effects may occur without decompression incident or injury. Reports of cognitive dysfunction and damage to the liver, retina, and heart of the diver with no history of decompression sickness are now emerging, these symptoms may occur gradually and away from the dive site, physicians should be aware of the signs and symptoms related to adverse events of diving in order to minimize its morbidity and mortality .

Objectives : to detect the effect of scuba diving on the hearing threshold of sport divers who have no history of excessive noise exposure or of diving-related inner ear damage.

Patients and Methods : Thirty of sport divers were included in our study compared with thirty control group of non divers, both groups were subjected to clinical assessment, tympanometry, pure tone audiometry.

Result (s) : Divers group shows significant difference in sensory neural hearing loss at high frequency 4KHz,6KHz,8kHz,while there were no significant difference in low frequency at 0.5KHz,1KHz,2KHz.

Conclusion: Sport diving is risky for long term diving as it affect inner ear causing high tone sensory neural hearing loss, follow up is advised for hearing sport divers especially the professionals.

ANOCUTANEOUS ADVANCEMENT FLAP PLASTY FOR HIGH "PRIMARY OR RECURRENT" PERIANAL FISTULA

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Abstract

*The management of high perianal fistula (high transsphincteric and suprasphincteric) remains a difficult surgical dilemma. Treatment of these complex fistulas by a traditional "laying open" technique, which is the standard treatment of low fistulas, will lead to an almost complete transection of the anal sphincters with wide separation of both ends and incontinence. Mucosal advancement flap can be technically difficult and is associated with ectropion, mucus leakage and incontinence. This study was designed to evaluate the healing rate of high "primary or recurrent" perianal fistula after anocutaneous advancement flap repair with core fistulectomy, as a sphincter - preserving alternative, and to examine the impact of this procedure on foecal continence. **Patients and methods:** Between April 2001 and December 2004, 16 patients (12 males), mean age 39 (range 27 - 63) years, with high "primary or recurrent" perianal fistula of cryptoglandular origin (10 high primary and 6 high recurrent) were treated. In all patients, perianal sepsis was allowed to resolve completely before definitive surgery. The technique used involved core fistulectomy, drainage or excision of any side tract(s) with curettage of any residual epithelium, closure of the defect in the internal anal sphincter, and a V-Y advancement buttock flap to cover the internal opening, leaving the site of the external opening for drainage while preserving both internal and external sphincters. Outcome was assessed in terms of healing and continence. **Results:** Most patients were discharged from the hospital within 6 (range 5-9) days. Median follow up was 26 (range 6 - 32) months. In the high primary group (n = 10), the healing rate was 90% and continence was preserved completely in all patients. In the high recurrent group (n =*

6), the outcome was poor. The healing rate was 50% and continence was preserved in 67% of patients. Overall : 12/16 (75%) of patients experienced complete healing of their fistulas and recurrence occurred in 4/16 (25%) of patients. The overall continence status was excellent in 14/16 (87%) of patients and disturbance in continence occurred in 2/16 (13%) of patients. **Conclusion:** High primary transsphincteric and suprasphincteric fistulas can be treated effectively by this procedure. It is simple, easy to perform, healing is rapid and it involves total sphincter preservation. Based on the relatively low healing rate and deterioration of continence, this procedure seems to be less suitable for high recurrent perianal fistula.

**COMPARISON OF STENTING WITH
MINIMALLY INVASIVE BYPASS SURGERY FOR
HIGH GRADE STENOSIS OF THE PROXIMAL LEFT
ANTERIOR DESCENDING CORONARY ARTERY:
SIX MONTHS FOLLOW UP OF RANDOMIZED STUDY**

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Abstract

Background: *High grade stenosis of the proximal left anterior descending coronary artery (LAD) in patients with single-vessel disease is associated with a significantly worse prognosis than lesions at any other location.*

Objective: *To compare the merits of stenting with minimally invasive coronary artery bypass (MICAB) surgery for high grade stenosis of isolated proximal LAD.*

Patients and methods: *One hundred patients with isolated high grade lesion (stenosis) >75% of luminal diameter in the proximal LAD were included. The patients were classified into two groups: Group A included 50 patients in whom successful stenting was performed. Group B included 50 patients in whom successful MICAB was performed.*

Results: *In group A the mean percentage of stenosis was significantly reduced to 10.48 ± 4.112 . After stenting, non of the patients died, 2 Q wave infarction, 2 non Q wave infarction and 1 required coronary bypass surgery, 1 stroke, 3 LAD dissection, 5 angina pectoris, 3 needed revascularization, 4 vascular complications and 4 needed blood transfusion. In group B, after surgery 1 patient had Q wave infarction, 1 non Q wave infarction, 2 patients needed necessary sternotomy because of an intramyocardial segment of the LAD, 3 angina pectoris, 2 needed revascularization, 2 vascular complications, 2 needed blood transfusion, 2 developed*

AF and 2 chest wall hernias. The mean duration of ICU stay after surgery was 2.62 ± 1.086 days as compared to 1.8 ± 1.591 days after stenting ($p < 0.05$), the mean duration of hospitalization after surgery was 8.64 ± 3.186 days as compared to 2.34 ± 2.471 days after stenting ($p < 0.01$). Follow-up was complete for all patients except two patients in each group (2 patients died in group B while in group A one patients traveled and other was excluded, eleven asymptomatic patients refused repeated cardiac catheterization after stenting, as did 13 patients after surgery. No statistically significant difference was found between both groups as regard to positive exercise stress test ($p > 0.05$). After stenting, the angina class improved 79.2% were free of angina. After surgery, the mean angina class improved, 91.6% of patients were free of angina. After six months of follow up, in-stent restenosis was detected in 11 patients (29.7%) and subgroup analysis showed a restenosis rate 15.4 for type B lesion, and 46.2% for type C lesion. The recurrence of stenosis was more in type C and B than type A in stenting group. In surgical group, 3 patients (8.6%) had stenosis $> 50\%$ of the luminal diameter at the anatomic region, and subgroup analysis showed a restenosis rate of 3.6% for type B lesions and 21.4% for type C lesions. The recurrence of stenosis was more in type C and B than type A in surgical group. Secondary end points were 56% in group A vs 26% in group B.

Conclusion: Stenting and minimally invasive bypass surgery are safe and effective treatment options for high grade lesions in the proximal LAD; MICAB requires longer hospitalization, more cost but has better angiographic outcome while stenting has higher target vessel revascularization and secondary adverse cardiac event than MICAB.

BASAL CELL CARCINOMA: EXPRESSION OF APOPTOSIS SUPPRESSING PROTEIN BCL-2

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Abstract

Objective: *The Bcl-2 protein increases cell longevity by inhibiting apoptosis (programed cell death). The aim of the study is to evaluate the expression and possible role of Bcl-2 in basal cell carcinoma (BCC).*

Study design: *Twenty two patients with 24 lesions (BCCs) were included in the study. After excision with safety margins, routine paraffin section of formalin-fixed BCCs were labeled with anti-Bcl-2 monoclonal antibodies using a biotin-avidin immunoperoxidase procedure. Apoptotic cells were counted in ten high power fields (HPFs) of each section. The results were compared with those in ten age and sex matched controls.*

Results: *Excision with reconstructive procedures was done with a safety margin (5mm). Simple undermining and advancement was done in 8 patients, post-auricular full thickness skin graft in 7 patients, local flaps (V-Y advancement flap, rotation flap) in 9 patients. In normal skin samples, Bcl-2 was only expressed by the basal keratinocytes in one of ten (10%) samples. The mean apoptotic index (AI) was 0.5 cells/10 HPFs. In BCC, Bcl-2 was expressed by tumor cells in 21/24 cases (87.5%) with apoptotic index AI ranging between 2-11 cells/10 HPFs with a mean 4.94 ± 1.2 cells (statistically highly significant).*

Conclusion: *Bcl-2 over-expression in the majority of BCCs may be the initial factor that predisposes to malignant transformation of keratinocytes by inhibiting apoptosis.*

**LAPAROSCOPIC TREATMENT
OF COMMON BILE DUCT STONES :
"SINGLE STAGE" LAPAROSCOPIC APPROACH TO
CHOLELITHIASIS AND CHOLEDOCHOLITHIASIS**

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Abstract

Treatment options of CBD stones include selective pre or postoperative ERCP, open choledochotomy and one-stage laparoscopic clearance. There are several disadvantages to ERCP including the additional invasiveness of endoscopic procedures, moreover large and/or multiple stones, or impacted stones in CBD may be difficult or impossible to retrieve at ERCP even with ES (endoscopic sphincterotomy). Peroperative real time cholangiography has the advantage of addressing choledocholithiasis with a single procedure LCBDE (Laparoscopic Common Bile Duct Exploration) while leaving the sphincter of Oddi anatomically intact without added morbidity. The choice of treatment between immediate laparoscopic common bile duct exploration, open exploration of CBD and trans-sphincteric endoscopic retrieval depends on many factors.

A prospective study was designed to visualize and examine the biliary ductal system by laparoscopic intra-operative cholangiography (IOC) during laparoscopic cholecystectomy (LC).

The aim was to visualize the ductal anatomy and any anomalies on filling with contrast (to avoid biliary injury), detect any CBD stones and assess the ductal emptying and patency of ampulla of Vater by immediate contrast flow through the papilla into the duodenum.

Methods: *Intraoperative cholangiography was performed for 302 patients underwent LC for chronic calcular cholecystitis (CCC) in Benha University Hospital from Dec. 1999 to Jan. 2004.*

Results: Among 302 patients underwent LC and intraoperative real-time cholangiography, 31 patients (11.3%) were harbouring silent CBD stones managed immediately for CBD clearance. LCBDE was feasible in 23/31 cases who had choledocholithiasis (74.2%), while 8 patients needed conversion to open choledochotomy. 28 patients (9.3%) had preoperative ERCP, endoscopic sphincterotomy (ES), stone retrieval. Operative cholangiography during LC proved residual stones in CBD in 2 of them (7.1%) and were treated by open choledochotomy.

Conclusion: LCBDE approach is safe, feasible and effective in management of CBD stones and carries low morbidity and mortality. It has the advantage of intraoperative diagnosis and treatment of choledocholithiasis as a "one step" procedure.

**COMPARATIVE EVALUATION OF ALFENTANIL
WITH PROPOFOL OR SEVOFLURANE
FOR ENDOTRACHEAL INTUBATION
IN PEDIATRIC WITHOUT
MUSCLE RELAXANT**

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Abstract

Intubation without muscle relaxant may be needed especially in pediatric short procedure. Although suxamethonium produces rapid profound neuromuscular block, it have many potential problems. Non-depolarizing neuromuscular blocking agents are an alternative but, slower in onset and have a longer duration of action. Propofol and sevoflurane may provide adequate conditions for intubation without neuromuscular blocking agents in pediatric.

We studied 60 ASA I or II children undergoing elective surgery. Patients allocated randomly to one of two groups. Group P (GP) received lignocaine 1mg kg^{-1} followed by alfentanil $15\ \mu\text{g kg}^{-1}$ 2 min before propofol $2.5\ \text{mg kg}^{-1}$ was given. In group S (GS) patients received lignocaine 1mg kg^{-1} followed by alfentanil $15\ \mu\text{g kg}^{-1}$ and induction of anesthesia was done by sevoflurane start by 3% concentration, which increase gradually until end tidal concentration was 3%, Laryngoscopy and intubation was performed, in GP 1min after propofol and in GS 3min after stabilization of end tidal sevoflurane to 3%. Intubation conditions were assessed and recorded. Duration of induction and intubation were estimated. Complications during induction, intubation, and after extubation were recorded.

Patients with acceptable intubation conditions in GP were more by one than GS group, but these results were statistically not significant and unacceptable condition was equal in both groups, impossible intubation con-

ditions happened only in one patient in GS. Induction time was significantly prolonged in GS, but intubation time did not show significant difference between both groups. Adverse effects, hypertension was occurred in one patient in GS. Hypotension and bradycardia were happened in one patient in GP. Only one patient, in GS, expressed laryngospasm and hypoxia which need suxamethonium to facilitate intubation. After extubation, laryngospasm and vomiting occurred in 1&2 patients in GS respectively and no patient in GP suffer from vomiting or laryngospasm.

We concluded that, Induction with intravenous propofol or inhalational sevoflurane, in addition to intravenous alfentanil and lignocaine, equally facilitate endotracheal intubation without muscle relaxant in pediatric patients. Induction time was significantly prolonged with sevoflurane, but intubation time, show no significant difference.

DRY EYE SYNDROME AFTER LASER IN SITU KERATOMILEUSIS (LASIK) FOR CORRECTION OF MYOPIA

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Abstract

Purpose: *To evaluate the incidence of dry eye syndrome after laser in situ keratomileusis (LASIK) and to determine the pattern of tears recovery.*

Patients and Methods: *In a prospective, non comparative case study, 33 eyes (20) patients underwent laser in situ keratomileusis to correct myopia ranging from -0.75 to -14.00D. Each eye was followed for mean period of 12 months (10 - 14 months). Patients were followed at 2 weeks and 2 days preoperatively and 1 day, 1 and 2 weeks, 1, 3, 6, 9 and 12 months postoperatively, measuring the Snellen visual acuity, corneal sensitivity, corneal fluorescein staining, tear break-up time, basic aqueous tear production by the Anaesthetized Schirmer test, and corneal Surface Regularity Index (SRI). Patients were divided according to the depth of ablation into group A (ablation depth < 100 μ m and group B (ablation depth >100 μ m).*

Results: *dry eye syndrome after laser in situ keratomileusis was evident at the ablated zone during the first 3 months after surgery and only at the 6th months it returned to its preoperative values. Recovery was more rapid at the hinge than the other points. The degree of sensation loss appears to correlate with the ablation depth and degree of dry eye symptoms.*

Conclusion: *The results suggest that lamellar cutting of the cornea during LASIK impairs corneal sensitivity and modifies tear production and the depth of the corneal ablation affects the extent of dryness and recovery.*

Key words: *LASIK, dry eye, corneal sensitivity, ablation, xerosis.*