

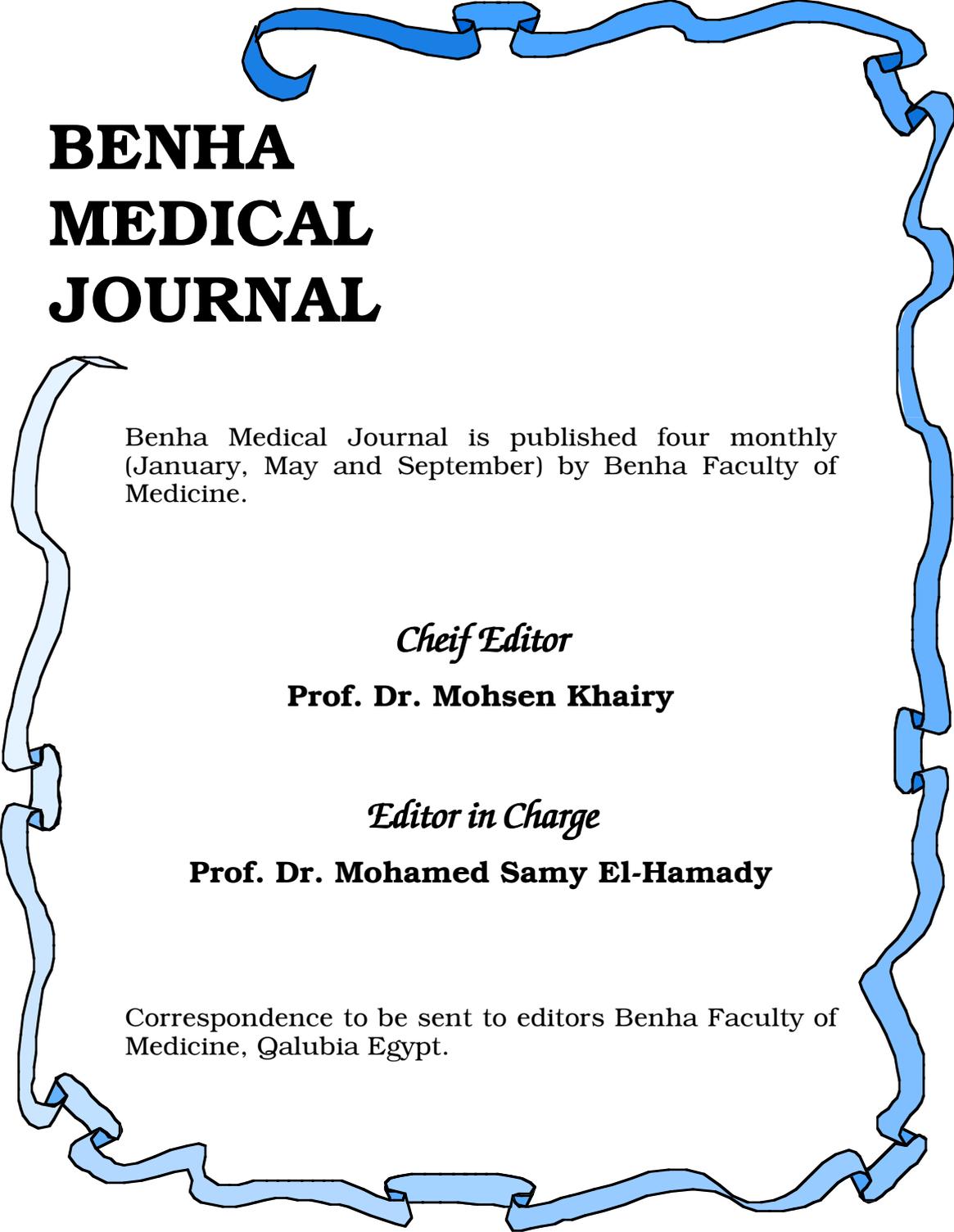
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ASSESSMENT OF SEMONT REPOSITIONING MANEUVER FOR TREATMENT OF BENIGN PAROXYSMAL POSITIONAL VERTIGO

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Abstract

This study was designed to assess the efficacy of Semont repositioning maneuver for treatment of benign paroxysmal positional vertigo (BPPV) with or without nystagmus and included 60 patients complaining of vertigo. Patients were categorized into two groups: patients who were observed to have nystagmus with vertigo (Objective group) and those who experienced only vertigo without nystagmus (Subjective group). All patients underwent physical treatment using Semont liberatory maneuver and were re-evaluated in clinic at 3 weeks' time till stability of the result. Treatment was graded as complete (no subjective complaint of vertigo), partial (significant improvement but persistent vertigo of nonpositional nature) or failure. In objective BPPV group, 27 patients had complete resolution of vertigo after one session of treatment, while 8 patients required 2 sessions and 3 of them had complete resolution while 5 had marked improvement, with an overall response of 87.5%, whereas 12 patients with subjective BPPV had complete resolution after one session of treatment. while 4 patients developed marked improvement 3 patients after one session and one patients after two seasons of treatment, with an overall response of 80%. There was a non-signifcant difference both between the number of seasons required to achieve result. ($\chi^2= 2.05, P>0.05$) and between the obtained results, ($\chi^2= 1.25, P>0.05$) between both categories of vertigo. There were 7 patients reported recurrence of vertigo, 4 in objective and 3 in subjective group. Pre-treatment duration of vertigo showed a negative significant correlation with result obtained. ($r=-0.67, P<0.05$). while showed a positive significant correlation with the number of sessions of treatment required to achieve result. ($r=0.64, P<0.05$). Also, there

was a negative significant correlation between the number of treatment sessions and the obtained result. ($r=-0.89$. $P<0.05$). Thus. we can conclude that repositioning treatment using Semont liberatory maneuver is a safe, simple treatment strategy that yields a rapid relief of benign paroxysmal positional vertigo whether accompanied with nystagmus or not.

SPIRAL CT DETECTION OF CORONARY ARTERY CALCIFICATION AND INCREASED CAROTID INTIMAL-MEDIAL THICKNESS BY CAROTID ULTRASONOGRAPHY: VALUABLE NON INVASIVE METHODS FOR DETECTING EARLY CORONARY ARTERY DISEASES AND ATHEROSCLEROSIS

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Abstract

Background: Currently available non invasive techniques can identify only patients with advanced coronary artery disease (CAD) who manifest myocardial ischemia. Also, the gold standard invasive coronary angiography provides no information on plaque burden other than the extent of luminal obstruction and vascular remodeling phenomenon results in disparity between plaque burden and angiographic stenosis.

Aim: To evaluate detection of coronary artery calcification (CAC) by spiral CT and increased carotid intimal-medial thickness (IMT) by B-mode ultrasound as non-invasive tools for detection of early atherosclerotic process, so that preventive measures may be instituted before occlusive vascular diseases occurs.

Methods: 70 subjects with their age 51.68 ± 10.1 years, divided into: group A include 31 patients with CAD 12 patients have already done coronary angiography. and group B include 39 subjects without evidence of CAD, were subjected to clinical evaluation, some laboratory investigations. E.C.G., X-ray chest, echocardiography, carotid ultrasonography for measurement of carotid IMT and spiral CT scan of heart for coronary calcium scorings (CCS).

Results: Both increased carotid IMT and CAC were detected in 55.7% of total 70 individuals. 83.9% of group A and 33.3% of group B. Signifi-

angiographically documented CAD than those with normal coronary angiography. There was a significant positive association between both increased carotid IMT & CAC and some risk factors for CAD e. g. age, male sex, smoking, diabetes mellitus, hypertension, serum cholesterol level and also with ECG evidence of CAD.

Conclusion: Detection of coronary artery calcification by spiral CT and increased carotid intima media thickness by ultrasound may represent a valuable non invasive methods for identification of early atherosclerotic process. Spiral CT scan has on advantage over invasive coronary angiography via giving information about plaque burden and vascular remodeling phenomenon that does not affect its specificity.

Key words: Spiral CT-coronary artery calcification-carotid intimal-medial thickness, cant increase of Carotid IMT and high CCS was detected in patients with

MEASUREMENT AND EVALUATION OF SERUM ANTI P53 ANTIBODY LEVELS IN PATIENTS WITH LUNG CANCER AT ITS INITIAL PRESENTATION

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Abstract

The present study aimed to detect and evaluate anti p53 Ab in patients newly diagnosed lung cancer and its relation to histological type, stage of the disease and response to therapy. For this purpose . 48 lung cancer patients at first presentation, 15 patients proven to have pulmonary disease other than lung cancer and 10 apparently healthy subjects were selected for this study. Ten patients from lung cancer group were followed up after treatment. ELISA procedure was used to detect serum anti p53 antibodies in all subjects .Results:There was statistically insignificant difference between cases with positive and negative anti p53 as regards the mean age and sex. Also percentage of positive anti p53 Ab cases in smokers and those accompanied with pleural effusion were significantly higher than in non smokers and those with no pleural effusion . It was found that 27% of lung cancer patients in this study were anti p53 Ab positive with no cell type difference, as there was no statistical significant difference between different histopathological types as regards the positivity of anti p53 (25% squamous cell carcinoma, 20 % adenocarcinoma , 33.3% large cell carcinoma and 25% small cell carcinoma) nor regarding the disease stage. Anti p53 Ab was never detected in association with pulmonary diseases other than carcinoma or in control sera . Ten patients (3 positive for anti p53 and 7 negative) were randomly selected in here anti p53 was repeated after 6 months of chemotherapy that led to either partial or complete remission of disease .one of them became nega-

tive. the other two positive cases showed reduced titer , in already 7 negative cases before treatment . none of them could find anti p53 Ab after treatment so anti p53 Ab could be a useful tool for oncologists in their attempt to analyze the patient response to therapy.

**ARTHROSCOPICALLY ASSISTED
RECONSTRUCTION OF THE
ANTERIOR CRUCIATE LIGAMENT WITH
USE OF SEMITENDENOSUS-GRACILIS GRAFT**

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Abstract

The results of reconstruction of the anterior cruciate ligament arthroscopically assisted with the use of semitendinosus-gracilis free autogenous graft were prospectively reviewed. Twenty reconstructions were evaluated after a minimum of twelve months { average 17 months (range 12-24 months)}.

The patients were evaluated with physical examination and Lysholm knee scoring system. All of the patients were males, whose mean age was 26 years (range 21-34 years).

Sixteen patients (80%) reported to have excellent results, two knees (10%) good, one knee (5%) fair and one knee (5%) poor result.

One case complicated with infection which is treated and did not restore full range of motion but the final range of motion was 0-10-110 degrees and one patient had recurrent effusion which needs exploratory arthroscopy with partial medial meniscectomy.

In this study, we found that arthroscopic reconstruction of the ACL using semitendinosus-gracilis graft result in some laxity which is compatible with subjective stability and the major advantage of this technique over the patellar bone-tendon-bone graft is the preservation of the extensor mechanism.

**ROLE OF GRANULOCYTE-COLONY
STIMULATING FACTOR (G-CSF) AS EARLY
MARKER IN DIAGNOSIS OF
NEONATAL SEPSIS**

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Abstract

Neonatal sepsis is a life-threatening disease with an incidence of 1 to 1.5 per 1000 live births, and a mortality rate of 15% to 50% (Remington & Jensen 1990).

The clinical signs of neonatal sepsis are nonspecific and indistinguishable from those caused by a variety of neonatal noninfective disorders, such as aspiration syndrome, maladaptation, and respiratory distress syndrome (RDS). It is therefore recommended for all neonates who develop these signs to start empirical antimicrobial therapy (Remington & Klein, 1995).

Our work was carried out on 56 neonates (37 males and 19 females) selected from Benha University Hospitals and from "Center ElGameeia El-Shareya for neonates at Nasr City" in the period from March 2002 to January 2003. For each case we performed G-CSF serum level and the preliminary laboratory tests (CBC, CRP, blood cultures) and accordingly our patients were classified into 3 groups:

Group I : (Proven sepsis with +ve blood culture result). Group II : (Suspected sepsis with -ve blood culture result and suspected clinical and laboratory sepsis) and Group III: (Non-septic neonates with -ve blood culture & +ve CRP).

Our results were tabulated, statistically analyzed & recommendations were put.

SECOND TRIMESTER PLASMA HOMOCYSTEINE ASSAY IN PREDICTION OF PRE-ECLAMPSIA

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Abstract

Homocysteine, the demethylated derivative of the essential amino acid, methionine, is regulated by several factors. Elevated levels during pregnancy are associated with an increased incidence of spontaneous abortion, intrauterine growth restriction, placental infarction and neural tube defects. Pre-eclampsia was added to this list of homocysteine-related pregnancy complications. The aim of this study was to determine the value of second trimester plasma homocysteine levels in the prediction of pre-eclampsia. This prospective study included 168 healthy primigravidae with singleton gestation from those attended the antenatal care clinic at Mansoura and Benha University Hospitals. Blood samples were obtained at their antenatal visits between 16-20 weeks. Plasma homocysteine was measured by enzyme immunoassay. The participants were followed up clinically till delivery for subsequent development of pre-eclampsia. The mean (\pm SD) homocysteine level at 18.4 \pm 2.0 weeks gestation in women who developed pre-eclampsia (Group I) was significantly higher than those who did not develop pre-eclampsia (Group II) (10.2 μ mol/L \pm 3.6 μ mol/L versus 8.2 μ mol / L \pm 1.6 μ mol/L respectively: $p < 0.001$). Those patients with plasma homocysteine level of $> 12 \mu$ mol / L in early pregnancy had an increased risk for developing pre-eclampsia by almost two and half folds. Also, plasma homocysteine level showed significant negative correlation with serum folic acid.

Conclusion: An elevated second trimester plasma homocysteine level is associated with increased risk for subsequent development of pre-eclampsia. Also, the significant negative correlation between plasma homocysteine and serum folic acid levels may offer a hope for the use of folic acid supplements to prevent the development of pre-eclampsia in high risk pregnancies.

ROLE OF PERCUTANEOUS DRAINAGE IN MANAGEMENT OF EMPHYSEMATOUS PYELONEPHRITIS : A CHANGING CONCEPT

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Abstract

Purpose: To present the outcome of percutaneous drainage in cases of emphysematous pyelonephritis (EPN) and feasibility of avoiding nephrectomy in such patients with poor general condition.

Patients and Methods: EPN was diagnosed in seventeen patients by computerized tomography (CT). All patients received intravenous fluids and antibiotics. Emergency nephrectomy was carried out in two patients. Three patients died before any surgical intervention due to cerebrovascular stroke, uremia and diabetic coma. Percutaneous drainage was carried out for the remaining 12 patients. Kidney could be saved in 3 and subsequent nephrectomy was done in 9 patients.

Results: Two patients who underwent emergency nephrectomy survived. Of the evaluable 12 patients (10 diabetic and 2 nondiabetic); percutaneous drainage was carried out. Resolution of inflammatory process was found in 3 cases and kidney recovered and preserved. Percutaneous drainage was unsuccessful in 9 patients ; thus, secondary nephrectomy was necessary but in a better general condition of the patients .The pathogenic organism was Escherichia coli in 9, klebsiella pneumoniae in 2 and proteus mirabilis in 1.

Conclusion: Percutaneous drainage may be considered as an alternative to immediate nephrectomy in emphysematous pyelonephritis. It could be the only treatment required and the affected kidney could be preserved . On the other hand when nephrectomy is inevitable percutaneous drainage can delay it until the general condition of the patient becomes better and the technical difficulties become minimal.

CONTACT TRANSSCLERAL CYCLODIODE VERSUS CYCLOCRYOTHERAPY IN REFRACTORY GLAUCOMA

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Abstract

Purpose : To compare the benefits and risk rates of contact transscleral cyclodiode and cyclocryo therapy in some cases of refractory glaucoma.

Partcipitans : This study comprised 68 eyes of 68 patients with neovascular (34eyes) and aphakic glaucoma (34eyes). All patients had pre-treatment visual acuity of less than 6/60.

Methods : Either contact transscleral cyclodiode or cyclocryo therapy was applied consecutively to the eyes of the included patients. Posttreatment follow up was done for 6 up to 12 months.

Results : Cyclodiode therapy was successful in 70.6% of the cases. The mean IOP reduction effect was 15.77 ± 4.504 mmHg . IOP reduction effect of cyclodiode was higher in neovascular glaucoma (17.9 ± 4.7 mmHg) than in aphakic glaucoma 13.5 ± 5.39 mmHg . Pretreatment ocular pain was relieved in 37.5% of patients. The mean number of pretreatment topical antiglaucoma medications was reduced from 2.4 to 1.5 . Visual acuity was stable in 73.5 % .improved in 5.9% and decreased in 20.6%. The only recorded complication was transient hyphaema in one eye Cyclocryo therapy was successful in 67.6%. The mean IOP reduction effect was 15.9 ± 5.23 mmHg. IOP reduction effect of cyclocryo was higher in aphakic glaucoma 19.05 ± 5.32 mmHg, than neovascular glaucoma 12.8 ± 5.06 mmHg. The pretreatment ocular pain was relieved in 77.8%. The mean number of pretreatment topical antiglaucoma medications was reduced from 2.52 to 1.57. Visual acuity was stable in 67.6%.and decreased in 32.4%. Complications after cyclocryotherapy were recorded in 8 eyes (23.5%), in the form of complicated cataract (5.9%), recurrent hyphaema (2.9%) . uveitis (2.9%) ,CRV occlusion (2.9%). vitreous haemorrhage

ge (2.9%). and atrophia buibi in (5.9%) of the cases .

Conclusions; In patients with refractory glaucoma, both transscleral Cyclodiode and cyclocryo therapy are effective means to reduce IOP, however post cyclocryo complications still an important concern. The success of these two procedures depend on type of glaucoma.

**INTERLEUKIN-8 (IL-8) IN ACUTE
MYOCARDIAL INFARCTION :
CORRELATION WITH CHLAMYDIA
PNEUMONIA ANTIBODY SEROPOSITIVITY**

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Abstract

This study was conducted to determine the relation between the chlamydia pneumonias (CP) seropositivity and the serum levels of interleukin-8 (IL-8) in patients with acute myocardial infarction (AMI). The study included 77 Egyptian patients having AMI and 13 control healthy subjects of matched age and sex. CP antibody testing (IgM and IgG) was performed using indirect immunofluorescence test. together with IL-8 immunoassay in both patients and control. High titers of CP IgG antibodies were found in 55.8% of AMI patients (43 patients), while only one positive case (7.69%) was found in control group. Higher concentrations of IL-8 were found in AMI patients when compared with the control group. Also, the levels of IL-8 were higher among CP positive AMI patients when compared with negative cases. It was concluded that a high prevalence of anti-Chlamydia IgG antibodies was found among a group of AMI patients and also higher levels of IL-8 among CP positive cases was found. It can be suggested that CP chronic infection is implicated in these cases and it could be considered as a contributing factor for the persistence of elevated levels of the chemokine IL-8 in some of those patients.

POWER DOPPLER SONOGRAPHY OF CERVICAL LYMPH NODES IN PATIENTS WITH HEAD AND NECK CANCER

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Abstract

Purpose; The purpose of this study is to evaluate the usefulness of power Doppler sonography in differentiating metastatic from non-metastatic cervical lymph nodes in patients with head and neck cancer.

Subjects and methods: Histologically proved metastatic (n=48) and non-metastatic (n=110) lymph nodes were examined with power Doppler sonography in 52 patients with head and neck cancer. Power Doppler sonography was assessed for its ability to differentiate metastatic from non-metastatic lymph nodes.

Results: Power Doppler sonography showed characteristic features of parenchymal blood flow signal in 40 (84%) of the 48 metastatic lymph & cervical nodes. On the other hand, only two (2%) of the 110 non-metastatic nodes showed these power Doppler signals. In addition, power Doppler sonography showed high levels of sensitivity (83%) and specificity (98%) in depicting metastatic lymph nodes, which were superior to the value (66% sensitivity and 92% specificity) obtained by applying size criteria (FL/S ratio : long axis / short axis ratio of the enlarged lymph node).

Conclusion: Our results suggest that the power Doppler criteria combined with the size criteria (FL/S ratio) constitute a powerful tool in differentiating metastatic from non-metastatic lymph nodes in patients with head and neck cancer.

LAPAROSCOPIC SUPRACERVICAL HYSTERECTOMY VERSUS LAPAROSCOPICALLY ASSISTED VAGINAL HYSTERECTOMY

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Abstract

Objective: To compare laparoscopic supracervical hysterectomy (LSH) with laparoscopically assisted vaginal hysterectomy (LAVH) in terms of indications, pathology, length, and weight of removed uteri, operative time, intraoperative blood loss, intra- and postoperative complications, later sexual junction.

Design: Cohort retrospective analysis of consecutive cases (Canadian task force 11-3).

Settings: Hutzel Hospital, Detroit Medical Center, Wayne State University USA, Vert-Pre Nouvelle Clinique, Geneva, Switzerland and Benha University Hospitals, Egypt.

Patients and Interventions: Hundred thirty-six patients underwent LAVH and hundred twenty-three underwent LSH.

Results: Our patients in both groups were matching regarding age, indications, and pathology of the removed uteri. Blood loss with LSH was significantly lower than it was in LAVH (mean. 125 ± 5 vs 149 ± 7 ml, $P=0.01$). Patients underwent LSH had significantly shorter operating times (mean, 120 ± 3 vs 250 ± 5 min. $p = 0.007$). The length of the removed uteri was 14.2 ± 0.5 cm (range. 5.2-18) in LSH versus 11.8 ± 0.4 cm (5.6-14) in LAVH. Weight of the removed uteri was 280 ± 6 gm (range. 65-750) in LSH compared to 235 ± 8 gm (range. 59-560) in LAVH group. There was no difference regarding the days of hospital stay in both groups. The number of complicated cases was less in LSH group 3/123 (2.4%) compared to

5 / 136 (3.7%) in LAVH group. Later on sexual Junction was better in LSH group.

Conclusion: After exclusion of preoperative ceruical disease LSH can be considered as a safer alternaciL'e to LAVH in patients candidates for laparoscopic hysterectomy.

Key words: Laparoscopic supraceruical hysterectomy, LSH, [apal copi-cally assisted uaginal liysterectomy, LAVH.

SOME IMMUNOLOGICAL STUDIES AND HLA-DRB1* IN HEPATITIS C VIRUS-RELATED NECROLYTIC ACRAL ERYTHEMA

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Abstract

Necrolytic acral erythema (NAE) is unique in its acral location and strong association with hepatitis C virus (HCV) and altered immunological functions. The aim of the present work was to evaluate HLA DRB1 alleles and association of some parameter of immune system functions (complements C3 & C4, antismooth muscle antibody (ASMA) and antinuclear antibody (ANA) in NAE. Response of cutaneous lesion to low dose interferon alpha (3 million unit (MU) /week) and hydroxychloroquine was also evaluated. This study included 22 patients with HCV-related NAE (group I), 45 chronic hepatitis C without NAE (group II as pathological controls) and 45 healthy subjects (group III, normal controls). ANA was positive more in patients than normal controls (18.2% vs 0%, $p < 0.003$), however no significant difference was seen between patients groups.*

*ASMA was positive significantly more in patients with NAE than HCV patients, and in both patients groups than normal controls (59.1%, 17.3% and 0%; $P < 0.001$ and 0.0001 respectively). A significant decrease in C3 and C4 was found in NAE patients than HCV patients without NAE, ($P < 0.01$) and in both patients groups than normal controls ($P < 0.001$). NAE was associated with HLA-DRB1*03, (77.7%, 16 of 22 vs 24.2%, 11 of 45 of normal controls. $P < 0.0009$ and 35.6% 16 of 45 HCV patients without*

*NAE, Pc=0.03. Clinical improvement and significant decrease in ALT (P<0.001) was observed in NAE patients after two months of interferon alpha and hydroxychloroquine therapy. Conclusion. Necrolytic acral erythema (NAE) appears to be an immune mediated response in chronic HCV patients, associated with, lower C3 & C4 and higher frequency of positive ASMA. The results suggest that the development of HCV related ANE is associated with HLA-DRB1*03 marker. And low dose interferon alpha (3 MU per week) and hydroxychloroquine are good treatment modalities for NAE.*

**DECREASED HELICOBACTER
FPYLORI-ASSOCIATED GASTRIC EPITHELIAL
PROLIFERATION BY CONCURRENT
SCHISTOSOMAL INFECTION**

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Abstract

Background/aim: Helicobacter pylori (H. pylori) infection, is associated With increased gastric epithelial proliferation, the enhanced epithelial proderation is important in developing gastric carcinoma. Some develop- ing countries with a high prevalence of H. pylori infection have high gas- tric cancer rates, whereas in others, these rates are low. The progression of helfcobacter-induced gastritis and gastric atrophy mediated by T- helper cell, type J (Th1) response may be modulated by concurrent para- sitic infection. Pathogenic helminths of the genus Schistosoma cause T- helper cell, type 2 (Th2) response to parasite eggs. The Th2 response is usually associated with down regulation of Thi cytokine synthesis. The aim of the present study was to assess whether concurrent Schistosoma mansoni infection with H. pylori has an effect on gastric mucosal injury in view of cell proliferation, apoptosis, pathological changes, nitric oxide and oxyradicals status. Patients/Methods; Between April 2001 and March 2002, 73 patients (13 child and 60 adults) were subjected to upper gas- trointestinal endoscopyJbr dyspepsia and liver cirrhosis in the National Liver Institute, Menoufiya University. Four biopsy specimens were taken, two from the greater curvature of the antrum and two from the upper body of the stomach, biopsies were obtained from any lesion as well as

from apparently healthy mucosa. One snap from each site was preserved in RNA later solution, then kept at -80°C till utilized for estimation of DNA-flow cytometric assay, reduced glutathion (GSH), catalase (CAT), superoia dismutase (SODj, Nitric oxide (NO), and lipid peroxidation product-moh dialdehyde (MDA)-. Diagnosis of bilharziasis was done by stool analysi or by sigmoidoscopy and rectal snip. Results: Of the 73 patients, 60 patients were cirrhotic (20 Child A, 34 B, 6 C), 48 were *H. pylori*-positive and 25 *H. pylori* negative. The mean age in *H. pylori* positive pate (46.31 ± 10.7 years) was significantly less than in *H. pylori* - negative patients (52.8 ± 7.2 years). Infection with *H. pylori* alone correlated with increased DNA s-phase, proliferation activity and apoptosis (sub-G phase) (p 0.04, 0.03 and 0.04) respectively. Concurrent infection with schistosomiasis occurred in 34 patients and it significantly suppressed DNA s-phase ($P=0.001$), proliferation activity ($p<0.004$), and apoptosis (sub-G phase), ($p>0.05$). On contrast, concurrent infection had an adverse effect on liver cirrhosis with increased incidence of upper gas trointestinal bleeding. Conclusions: Schistosomal concurrent infection with *H. pylori* is associated with higher incidence of superficial gastritis, and may complicate liver cirrhosis with increased upper gas trointestinal bleeding. On the other hand, concurrent schistosomal infection may have a protective effect against the possible progression of *H.pylori* induced gastritis towards gastric carcinoma, by modulating the cytokine profile of the gastric mucosa with suppression of the proliferation activity. A detailed study of the cytokine expression in similar cases is recommended for unraveling the mystery of this phenomenon.

INTRAPARTUM AMNIOINFUSION IN WOMEN WITH MECONIUM STAINED AMNIOTIC FLUID

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Abstract

Objective: To assess the effectiveness of intrapartum amnioinfusion in laboring women with meconium stained amniotic fluid. Patients and Methods: Sixty women in labor with premature rupture of membrane and meconium stained amniotic fluid were recruited after ful-filling the inclusion criteria. They were randomized into two equal groups 30 women each. Amnioinfusion (AI) group: women at this group were subjected to continuous intrauterine warm saline infusion. The other group of women received routine management of labor (control group). Women in both groups were assessed concerning fetal heart rate abnormalities. mode of deliveries, 1 and 5 min Apgar scores, pH in umbilical artery blood, the presence of meconium at the level of neonatal vocal cords and occurrence of meconium aspiration syndrome.

Results: No significant difference did occur between the two groups regarding the average total length of labor. At the beginning of the study, the frequencies of fetal variable deceleration were more or less equal in both groups. After AI the frequency of such variability was significantly reduced in AI group compared to the control one. Concerning mode of delivery, cesarean section rate was significantly lower in AI group compared to the control one (16.7% us 40%). Regarding neonatal outcome, Apgar score <7 at 1 and 5 min in addition to pH in umbilical artery blood showed no significant differences in both groups. On the other hand, the presence of meconium at the level of vocal cords is more frequently encountered among neonates of the control group. Consequently meconium aspiration syndrome in AI group was less frequent than control one.

Conclusion: Amnioinfusion procedure is a safe, easy and effective in terms of reducing cesarean section rates and improving neonatal outcome. Simplicity of the procedure may render it feasible.

VALUE OF TRANSTHORACIC ECHOCARDIOGRAPHY FOR THE DETECTION OF LEFT MAIN CORONARY ARTERY OBSTRUCTION IN PATIENTS UNDERGOING CORONARY ANGIOGRAPHY

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Abstract

Objective: to determine the clinical feasibility and reliability of transthoracic echocardiography for the detection, of significant Left Main Coronary Artery (LMCA) obstructions in patients undergoing coronary angiography.

Patients and Methods: Sixty patients (thirty with normal LMCA: group A and thirty with angiographically proven LMCA disease; group B) were studied to evaluate the feasibility of use 2-D echocardiography to detect the LMCA disease. Visualization of the LMCA was attempted in all patients using a parasternal short-axis view at the level of the aortic root with the transducer in the third or fourth left intercostal space, with 30 & deg clockwise rotation, or apically from a Jiue-chamber i;iew with cranial angulation of the transducer. Evidence of LMCA stenosis was defined qualitatively as an area of apparent luminal narrowing, usually as a result of high-intensity echoes, with uisualization of a larger lumen beyond that area.

Results: the LMCA was successfully imaged by 2-D echo in 51(85%) of the sixty patients studied; 26(86.66%) patients in group A and 25 (83.33%) patients in group B. Echocardiographic criteria of LMCA stenosis were noted in 24 patients: 22 from group B (true positive) and two from group A (false positive). The LMCA appeared normal on echocardiographic examination in 27 patients; 24 from group A (true negative) and 3 from group B (false negative). The sensitivity of echocardiography for detection of significant lesion of the LMCA was 88%, specificity was 92.31% and accuracy was 90.2%.

Conclusion: These findings are encouraging and indicate that echocardiography can be a practical mean of detecting or excluding obstruction of the LMCA and it may be a useful adjunct to coronary arteriography because it can alert the arteriographer to the potential presence of a LMCA disease.

ROTORESECTION OF THE PROSTATE : A PRELIMINARY REPORT

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Abstract

Objective: To report the results and follow up of rotoresection of the prostate during one year.

Patients and Methods: The rotoresection is a specially designed resection electrode, driven by a micromotor and a high frequency current to enable simultaneous coagulation, vaporization and mechanical tissue resection during resection. Between October 2001 and October 2002, fifty patients with symptomatic benign prostatic hyperplasia (B.P.H.) have had their prostate resected with this new technique.

Results: The actively rotating electrode enables tissue coagulation and vaporization as well as mechanical tissue ablation. Only minimal bleeding was observed during the entire resection procedure. The mean resection time was 39.3 ± 9.8 minutes. No intra-operative complications occurred. Post-operatively, no significant changes in hemoglobin and sodium concentration were detected. The urinary maximum flow rate was improved from 8.2 ± 2.2 to 23.5 ± 5.5 ml/sec, and the residual urine volume reduced from 190.4 ± 102.7 to 25.6 ± 7.8 ml. The international prostate symptom score (IPSS) improved from 25.3 ± 6.1 to 7.2 ± 2.5 .

Conclusion: Rotoresection of the prostate is a promising new technique which has the advantages of high ablation rate, minimal blood loss, no significant change in hematocrit and serum sodium concentration and short hospital stay. Longer follow up with larger numbers of patients will be essential in determining the durability of this technique as a treatment modality for symptomatic BPH.

ANATOMICAL SITES OF RADIAL NERVE COMPRESSION

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Abstract

This study was designed to determine the anatomical sites of radial nerve compression, and consisted of 30 upper limb specimens dissected to expose the radial nerve throughout its course through the arm and forearm and was photographed. The radial nerve was found to be crossed at least at one site in each specimen, it was found crossed by muscle bundles in the radial tunnel in 12 specimens (40%) and as it pierces the supinator muscle in another 12 specimens, (40%) and was found crossed by vascular elements in 7 specimens (23.33%). in 5 specimens as it traverses the radial tunnel and in 2 specimens at the cubital fossa. Crossing fibrous bands were reported in 7 specimens (23.33%) in the radial tunnel extending between the brachialis and brachioradialis muscles. We can conclude that radial nerve is crossed at various sites throughout its course through the arm and forearm, however, the commonest site being in the front of the lateral intermuscular septum (at the radial tunnel) and the commonest crossing element is the muscular bundles.

LEUKOTRIEN B4, IgE AND EOSINOPHILS IN PATIENTS WITH ATOPIC DERMATITIS

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Abstract

Urine level of leukotrien B4, serum IgE and eosinophil count was assayed in twenty eight patients with atopic dermatitis and twelve healthy non atopic subjects as a control group to find out the role of cysteinly leukotriens in the pathogenesis of atopic dermatitis.

We find that the mean level of urinary leukotrien B4 was highly significant ($P < 0.001$) in atopic dermatitis patients as compared with control group.

Also serum IgE level was significantly high ($p < 0.001$) in atopic patients as compared with control group and eosinophil count was significant in patients as compared with control group, also there is correlation between level of urinary leukotrien B4, IgE and eosinophil count in atopic dermatitis patients and with the disease activity.

ANOPLASTY FOR SEVERE POSTSURGICAL ANAL STENOSIS : COMPARATIVE RANDOMIZED STUDY

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Abstract

Cicatricial stenosis of the anal canal is a serious and disabling complication of anal surgery, which may be extremely difficult to manage. This comparative randomized study was performed to evaluate the efficacy, complication rate and recurrence of anal stenosis after Y-V anoplasty, diamond - shaped pedicle flap or house advancement pedicle flap and may be their indications in postoperative anal stenosis. In this study we reported 27 patients with severe anal stenosis. Eight of these patients underwent a Y-V anoplasty while nine had a diamond flap anoplasty and ten of these patients underwent house advancement flap anoplasty. All patients had bilateral anoplasty with or without partial internal sphincterotomy according to the presence or absence of an associated functional stenosis. All patients were seen 4 weeks, 6 months, one year and then annually after surgery. In the patients who underwent Y-V anoplasty, morbidity was in the form of haematoma and wound dehiscence in one patient and an ischemic contracture of the leading edge of the flap in other four patients. At 4 weeks follow up, all patients showed complete healing of wounds and most of them reported satisfactory results.

Subjectively, one of the patients with house advancement pedicle flap complained of mild constipation, while, two patients with diamond pedicle flaps and 4 patients with Y-V anoplasty complained of moderate constipation. Six months postoperatively, neither further complications nor incontinence was observed. Furthermore, anorectal manometric studies revealed within normal resting and squeezing pressures for all patients.

At one-year follow-up, all patients who underwent house advancement

ment flap had complete remission of the symptoms. Among the 9 patients who underwent diamond pedicle Jlap, 7 Judged their clinical results satisfactory while 2 patients had restenosis. Of the 8 patients who underwent Y-V anaplasty. 4 patients had restenosis after one year.

Although our cohort of patients is not huge, and randomized studies-comparing the results of many different operative procedures used to correct anal stenosis are lacking in the literature, we can conclude that house advancement Jlap is a simple and safe method to correct postoperative anal stenosis with good long term results.

EVALUATION OF SAPHENOPERITONEAL SHUNT IN HEPATIC PATIENTS WITH INTRACTABLE ASCITES

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Abstract

Portal hypertension is a leading cause of chronic illness in Egypt. It is responsible for a significant proportion of lost days from work and refractory ascites is the most frequent admitting diagnosis in the medicine and hepatology departments.

Aim.-To evaluate the saphenoperitoneal shunt (SPS) in the management of hepatic patients with intractable ascites.

Design: Prospective study.

Setting: Mansoura University Hospital, Department (8). General Surgery.

Participants: Hepatic patients with intractable ascites

Material and Methods: For 15 patients with intractable ascites the great saphenous vein is reversed to form saphenoperitoneal shunt under spinal anaesthesia.

Main outcome measures: Patients morbidity and mortality as reflected by patients outcome, clinical follow up, laboratory follow up (kidney functions - liver functions) Child-Pugh grade and the therapeutic follow up.

Results: There was significant relief of symptoms in (86.6%) of patients. shunt stenosis in a single case and partial thrombosis in 2 cases, significant reduction of patients weight, abdominal girth and increased blood pressure, improved liver & kidney functions and upgraded patients scoring with less requirmentsfor diuretics.

Conclusion: The saphenoperitoneal anastomosis (SPS) has a wide range safety, cost effective, favorable outcome, less morbidity and mortality. So, it is a definitive treatment but not a palliative one.

**PROINFLAMMATORY
CYTOKINES AND ENDOTHELIAL
DYSFUNCTION IN OBESE SUBJECTS :
EFFECT OF WEIGHT REDUCTION**

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Abstract

Background and Objective: Obesity is associated with an increased risk of developing atherosclerosis, which may be mediated, at least in part, by increased secretion of proinflammatory cytokines by adipose tissue. The aim of present study was to determine whether circulating levels of inflammatory cytokines and intercellular adhesion molecule-1 (sICAM-1) are elevated in obese subjects and whether they could be reduced by a substantial decrease in body weight.

Subjects and Methods: Forty-two healthy obese subjects (22 females and 20 males, age range 25 to 40 years, body mass index 35.2 ± 3.64 Kg/m², waist to hip ratio 0.883 ± 0.085 . and 20 age and sex matched normal weight controls were studied.

Results: Compared with nonobese subjects, obese subjects had increased basal concentrations of tumor necrosis factor- α (TNF- α). ($P < 0.001$), interleukin-6 (IL-6). ($P < 0.001$) and sICAM-1 ($P < 0.001$). Flow mediated dilatation (FMD) was impaired in obese subjects when compared to lean controls ($7.52\% \pm 3.05$ Vs $10.28\% \pm 1.64$, $P < 0.001$). Concentrations of TNF- α and IL-6 were related ($P < 0.001$) to visceral obesity, as well as to sICAM-1 levels and FMD. After one year of a multidisciplinary program of weight reduction (diet, exercise, behavioral counseling), all obese women lost at least 10% of their original weight. Compared with baseline, sustained weight loss was associated with reduction of cytokines (TNF- α , IL-6) ($P < 0.001$) and sICAM-1 ($P = 0.001$) concentrations in addition to improvement of FMD ($P < 0.001$).

Conclusion: In obese subjects, endothelial activation and dysfunction; correlates with visceral body fat. possibly through inappropriate secretion

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of cytokines. Weight loss represents a safe method for downregulating the inflammatory state and ameliorating ameliorating endothelial dysfunction in obese subjects

RELATIONSHIP BETWEEN PLASMA HOMOCYSTEINE LEVEL AND SOME CARDIOVASCULAR RISK FACTORS IN PATIENTS WITH TYPE 2 DIABETES

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Abstract

Background; High plasma homocysteine (Hey) concentration is risk factor for cardiovascular disease. Insulin resistance has been hypothesized to play an important role in the development of atherosclerotic disease. The information on the association between insulin resistance, other cardiovascular risk factors and plasma Hey in type 2 diabetes is limited. Objective: The aim of our study was to assess the impact of insulin resistance and other cardiovascular risk factors on plasma total Hey levels in patients with type 2 diabetes. Subjects and Methods: The study included 40 patients with type 2 diabetes (aged 42.0 ± 4.1 years) and 15 healthy controls, matched in age and sex with the patients. The following parameters were assessed: Fasting plasma glucose (FPG), fasting plasma insulin (FPI), homeostasis model assessment of insulin resistance (HOMA-IR), serum total cholesterol, triglycerides, HDL-C, LDL-C and plasma total Hey. Results: Our study revealed significant increase in SBP, FPG, FPI, HOMA-IR, and total Hey in type 2 diabetic patients compared to control group (137 ± 4 vs 123 ± 5 mmHg, 103 ± 10.1 vs 83.2 ± 6.9 mg/dl; 20.1 ± 4.1 vs 8.8 ± 3.1 μ mol/L; 5.8 ± 0.8 vs 1.93 ± 0.26 , 13.6 ± 1.2 vs 7.6 ± 0.8 μ mol/L, respectively, all $P < 0.001$). As regard serum lipids our results revealed significant increase in total cholesterol, triglycerides and LDL-C but significant decrease in HDL-C in type 2 diabetic patients compared to control group (210 ± 39 vs 160 ± 21 mg/dl; 220 ± 29 vs 106 ± 10 mg/dl; 129 ± 28 vs 88 ± 21 mg/dl; 40 ± 11 vs 52 ± 16 , dl, re-

spectively, all $P < 0.05$). In patients with type 2 diabetes there significant positive correlation between total Hey and SBP, FPG, HOMA-IR, total cholesterol and LDL-C ($r = 0.327$, $P = 0.005$; $r = 0.240$, $P = 0.049$; $r = 0.513$, $P < 0.001$; $r = 0.601$; $P < 0.001$; $r = 0.241$, $P = 0.048$; $r = 0.250$, $P = 0.040$ respectively), but there was significant negative correlation between total Hey and HDL-C ($r = -0.301$, $P = 0.009$). Conciv Increases in total homocysteine levels in type 2 diabetes are asso with insulin resistance and other cardiovascular risk factors. Thus insu resistance may be an important determinant of Hey levels in those patients.

**MANAGEMENT OF SPONTANEOUS
SUPRATENTORIAL INTRACEREBRAL HEMORRHAGE
A Comparative Study between Surgical
and Medical Treatment**

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Abstract

Objective: To study and compare the effectiveness and outcome of the surgical treatment versus medical management of patients with spontaneous supratentorial intracerebral hemorrhage (ICH).

Methods: A comprehensive review of 35 patients with spontaneous supratentorial ICH is performed at Benha university hospital and King Fahd general hospital from March 1999 to September 2001. Twenty patients had surgery for clot evacuation through open craniotomy and fifteen received medical management. Inclusion criteria were Glasgow Coma Score > 5 at the time of enrollment, with focal neurological deficits, ICH volume > 20 cc on the initial brain CT scan. The follow up period was three months. Out-come was defined using the Glasgow Outcome Scale (GOS). A good out-come was defined as GOS score > 3 at 3 months.

Results: Overall the results of management of spontaneous supratentorial ICH either by surgical or medical treatment is potentially confounded and inconclusive. Forty six percent of the patients died (GOS 1), 34% remained severely disabled (GOS 3) and 20% became independent with moderate disability (GOS 4). The likelihood of a good outcome (GOS >3) for the surgical treatment group differ from the medical treatment group (25%

vs. 13%). There was no significant difference in mortality at 3 months (45 us. 46.6%). At the end of the follow up period, the median GOS sc showed a nonsignificant trend towards a better outcome in the surgical treatment group against the medical treatment group (56% us. 53%).

Conclusions: Craniotomy with clot evacuation for spontaneous supratentorial ICH may result in functional independence in approximately a quarter of patients (5 out 20). Despite this, there is no clear indication from this study for the optimal treatment of these patients either through, aggressive surgical intervention or conservative medical management,

Key Words : Intracerebral hemorrhage- medical treatment-surgical treatment- craniotomy, hemiation, basal ganglion hematoma.

RESULTS OF TREATMENT OF UNUNITED FRACTURES OF SCAPHOID BONE BY ILIAC BONE GRAFT AND KIRSCHENER WIRE FIXATION

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Abstract

Fractures of the scaphoid comprise 70% to 80% of injuries to carpal bone. Studies suggest that only 5% to 10% of these fractures proceed to non-union. This risk of delayed healing or non-union have been attributed to delay in beginning treatment, inadequate immobilization, displacement of the fragments, instability due to ligamentous injury or inadequate blood supply of the proximal fragment.

Non-union of the scaphoid usually causes pain and weakness, which interfere with work and sport, also non-union would most probably result in carpal osteoarthritis.

Sixteen patients with symptomatic non-union of the scaphoid had been treated by iliac bone graft and Kirschener wire fixation in Mansoura University Hospital. The patients presented with pain, limited range of wrist-motion and weak grip strength. The average age was 27.6 years. The average time of delay before the operation was 32 months (3 months - 60 months). The average duration of follow up period was 9 months.

Union was achieved in 15 patients (93.75%) at an average period of 20 weeks (16-28 weeks). According to Weightington wrist scoring system: 13 patients (81.25%) had excellent results. 2 patients (12.5%) had good results, one patient (6.25%) had poor results, and no fair results.

Iliac bone graft and Kirschner wire fixation is an effective procedure for management of scaphoid non-union. It is simple, economic procedure that does not need special equipments and fixation does not add much to the operative time.

PREDICTION OF OUTCOME OF RENAL TRANSPLANT SURVIVAL. APPLICATION OF ARTIFICIAL NEURAL NETWORKS

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Abstract

One of the purposes of the evolving of the field of medical informatics is to develop decision support systems that enhance the human ability to diagnose, treat, and assess prognoses of pathologic conditions. This work is to compare the ability of an artificial neural network and a model of logistic regression to predict individual survival status at 2 years after renal transplant. Artificial neural networks (ANNs) are new computational tools, which once trained, can recall proper outputs for a specific set of inputs never encountered before.

Between 1976 and 1997, 1000 patients with End-Stage-Renal-Disease (ISSRD) were subject to renal transplant. Survival status at 2 years was known in 725 patients, while censored cases with less than that period were excluded. Logistic regression model was built and a neural network was trained on randomly selected 80% of patients (580 patients) to predict individual status at 2 years (status = "1" for graft loss" and "0" for "graft survival"). We classified the risk factors into pre-transplant, transplant (technical), and post-transplant predictors.

The performance of the LR and ANN models, revealed a sensitivity (percentage of correctly predicted deaths) of 10.6% and 87.6%, a specificity (percentage of correctly predicted survivors) of 99% and 84%. with an overall accuracy of 85.3% and 85.8% respectively.

The results show that neural network has a higher accuracy in predicting the sensitivity at the 2-years survival status. It has also a better balance between the correct prediction of losses and survivors. Probably.

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still some new markers are needed to differentiate those, whose survival status was not correctly predicted.

Keywords : Artificial neural network. Survival analysis. Regression analysis. Renal transplant

ANKLE ARTHRODESIS USING FULL THICKNESS ILIAC BONE GRAFT AND SCREW FIXATION

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Abstract

Ten patients had ankle arthrodesis for post traumatic ankle arthritis. Full thickness iliac bone graft with cancellous screw fixation was used. There were seven male and three females. The mean age at the time of surgery was 32.2 years (range "18-46 years). The right ankle was involved in six patients. The mean duration from trauma to surgery was 15,7 months (range 8-28 months), with a mean follow-up duration of 24,6 months (range 15-36 months).All ankles had fused in an average time of 12.3 weeks with improvement of Mazw score(1979) from a mean preoperative score of 57.9 points to a mean postoperative score of 82.4 points. The functional results at end of follow-up were excellent in seven patients and good in three. The mean talotibial angle was 6.5 degrees of plantarflexion with no ankle placed in calcaneus. The hind foot was placed in neutral to valgus in all patients but one. The mean leg length discrepancy as measured by scanogram was 5.5 millimeters (range 4-8 millimeters).No complications had been reported through this study apart from pain over the head of a medial screw in one patient that necessitated its removal after fusion.

In conclusion, the use of full thickness iliac bone graft with screws fixation was found to give a satisfactory clinical outcome regarding the rate of union, the improvement of pain and the minimal leg length discrepancy.

THE POSTCHOLECYSTECTOMY SYNDROME. A PROSPECTIVE STUDY OF 46 PATIENTS.

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Abstract

Background and aim : Although cholecystectomy is one of the most frequently and successfully performed operation for treatment of symptomatic gall stones, the development of postoperative symptoms is embarrassing to the surgeon and may represent a source of discomfort to the patient. The aim of this study is to evaluate the possible etiological factors that may be implicated in development of postcholecystectomy dyspepsia, including helicobacter pylori (H.pylori) colonization, gastric electrical and mucosal changes. Methodology: This prospective study has been carried out on 46 patients (20 males and 26 females) with mean age of 41,7±0.2 years. All patients had symptomatic gall stones and were subjected to cholecystectomy. These patients were carefully evaluated before surgery and one year after. The workup included thorough history and clinical examination, upper gastrointestinal endoscopy, histopathological examination of the antral mucosa, H.pylori detection and electrogastrography (EGG).Results: The number of patients presenting with symptoms suggestive of reflux gastritis increased after surgery. Patients experiencing epigastric pain increased from 17.4% (8 cases) to 23.4% (11 cases). nausea increased from 13% (6 cases) to 26.1% (12 cases) and bilious vomiting increased from 6.5% (3 cases) to 23.9% (11 cases). Mild antral gastritis increased from 43.5% (20 cases) to 58.7% (27 cases). Moderate antral gastritis were detected in 17.4% (8 cases), whereas severe antral gastritis with erosions were detected only in 4.3% (2 patients) after cholecystectomy. The incidence of chronic superficial gastritis decreased from 50 to 28.2% while the inactive form increased from 32.6% to 50%. Chronic atrophic gastritis with intestinal metaplasia or dysplasia were only de-

tected in 4.3% of patients. *H.pylori* infection decreased from 69.6% to 41.3% of patients. EGG abnormal frequencies decreased from 26.1% to 8.7% in the fasting state and from 16.9% to 4.3% in the postprandial state. The number of patients with decreased EGG amplitude after meal increased from 4.3% to 28.3% Conclusion: Postcholecystectomy dyspepsia is considered one of the controversial issues as regard both the etiology and management. In this study we found that duodenogastric reflux (DGR) is significantly increased after cholecystectomy, whereas *H.pylori* colonization is considerably decreased. If reflux gastritis should conclusively be shown to cause dyspepsia, then these observations and findings would be helpful in management of residual or new dyspeptic manifestations after cholecystectomy. Finally EGG may be used as one objective mean for detection and evaluation of these postoperative changes.

STUDY OF SPUTUM LEVEL OF INTERLEUKIN-8 IN COPD PATIENTS

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Abstract

The present study was conducted to assess the characteristics of airway inflammation in patients with COPD by measuring the sputum level of IL-8. Eighty subjects were included in this study. 40 patients with COPD, 30 patients with bronchial asthma and 10 healthy control. All of studied groups were subjected to full history, ventilatory pulmonary function tests and measurement of IL-8 in sputum supernatant by enzyme linked immunosorbent assay (EUSA). The study elucidated significant higher level of IL-8 in COPD patients than in bronchial asthma patients or in the control subjects. There was significant negative correlation between sputum level of IL-8 and pulmonary function parameters. Also it was found that FEV1% was the only parameter of pulmonary function test which could significantly predict the sputum level of IL-8. It is concluded that IL-8 may serve as a marker in evaluation of the severity of airway inflammation and its sputum level was closely related to the severity of airway obstruction in COPD patients.

SPINAL CANAL REMODELING AFTER STABILIZATION OF THORACOLUMBAR BURST FRACTURES

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Abstract

Bone fragments in the spinal canal after thoracolumbar burst fractures causing spinal canal narrowing is a frequent phenomenon. Efforts to remove such fragments are often considered. The aim of this study was to evaluate the spinal canal remodeling after posterior instrumentation and fusion. 24 patients with unstable thoracolumbar burst fractures were treated in Mansoura Emergency Hospital by transpedicular instrumentation and fusion using autogenous iliac bone graft. There were 16 males and 8 females, their age ranged from 18 to 54 years with a mean age of 34 years. 16 patients had burst fracture at L1 level, 4 patients had fracture of L2, 2 patients had fracture of T12 and another 2 patients had fracture of T11 level. Preoperative CT scan was done routinely for all the patients and sometimes with sagittal reformat to evaluate the pattern of the fracture and the degree of canal compromise. Also detailed neurological evaluation for the patients was achieved and documented. 15 patients had partial neurological insult while 9 patients were neurologically intact. The type of neurological deficit in all patients was scored on the scale of Frankel et al. Spinal canal cross sectional areas (CSA) were measured preoperatively, within 1 week postoperatively and at least 2 years after surgery. The results showed that the preoperative canal encroachment averaged 48.83% (range 30%- 72%) of the estimated original area. The 16 patients with neurological deficit had significantly more severe initial canal encroachment (mean 53%) than those who were neurologically intact (mean 41%). Postoperatively, canal encroachment had decreased to a mean of 33.87 % (range 18-55%), at the end of follow-up, canal encroach-

ment was further reduced by resorption of bone fragments to a mean of 12.08% (range 0-32%). Our results showed statistically significant difference in spinal canal areas postoperatively and at the end of follow-up suggesting effective remodeling of the spinal canal after surgical treatment of thoracolumbar burst fractures with posterior instrumentation and fusion. All patients with neurological deficits improved, and only 4 patients had residual neurological affection, our study shows that canal enlargement during surgery is caused by indirect effects when the spine is distracted and put into lordosis. Remodeling will occur if there is residual, narrowing. Acute intervention into the spinal canal, as well as subsequent anterior surgery because of residual bone, should be limited.

SIGNIFICANCE OF THORACOLUMBAR SPINAL CANAL DIMENSIONS IN PREDICTION OF NEUROLOGIC INJURY IN PATIENTS WITH BURST FRACTURES

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Abstract

The relation between the spinal canal dimensions and its association with neurologic sequelae after cervical spine injuries has been established. A similar relation at the thoracolumbar spine is debated in the literature. The aim of this work is to determine the relation between the spinal canal dimensions and their association with neurologic sequale after thoracolumbar burst fractures. In a prospective study between January 1999 and December 2001, 48 patients with thoracolumbar burst fractures (T11-L2) 22 with neurologic deficit and 26 without neurologic deficit were included in our study. There were 30 males and 18 females, their age ranged from 18 to 62 years with a mean age of 37 years. Computed tomographic(CT) scans were done for all the patients to evaluate the pattern of the fracture and to measure the sagittal, the transverse diameters and the surface areas of the spinal canal at the level of injury, as well as one level above and one level below the fracture level. The type of neurological deficit in all patients was scored on the scale of Frankel et al 1969. All the patients with burst fractures of the thoracolumbar Junction, with and without neurologic deficit, were compared in sagittal diameter, transverse diameter, sagittal-to-transverse diameter ratio and Cross sectional area (CSA). Statistical analysis was performed using Student s t-test. We found that the ratio of sagittal-to-transverse diameter at the level of injury was significantly smaller in patients with neurological deficit than those without a neurologic deficit. The mean transverse diameter at

the level of injury was significantly larger in patients with neurological deficit than in the neurologically intact patients. The surface area of the canal at the level of the injury was significantly smaller in patients with neurological deficit than in those without a deficit. There was no significant statistical relation between spinal canal measurements above and below the level of injury with the neurologic deficit. We concluded that There were no anatomic factors at the thoracolumbar junction that predisposed to neurologic injury after burst fracture, however the shape and the size of the canal after injury were predictive of neurologic deficit.

DYSREGULATION OF BLOOD LYMPHOCYTE SUBSETS AND NATURAL KILLER CELLS IN SCHISTOSOMAL LIVER CIRRHOSIS AND HEPATOCELLULAR CARCINOMA

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Abstract

Immunolpgicol factors are important in. the pathogenesis of a wide spectrum of hepatobiliary diseases. Using flow cytometry, we determined the changes in. lymphocyte subsets and natural killer cells in 223 individuals (81 patients with liver disease ad 42 healthy volunteers). The liver diseases included periportal fibrosis (PPF. 10 patients), liver cirrhosis (UC. 31 patients), and hepatocellular carcinoma (HCC, 40 patients). Schistosomiasis and viral hepatitis B and C were the putative etiological agents of liver diseases. Immunophenotyping by indirect immunofluorescence was conducted using monoclonal antibodies to CD3 (T-lymphocytes), CD4 (helper/inducer T-cells), CD8 (suppressor/cytotoxic T-cells) and CD 57 (natural killer cells) cell surface markers. Immunophenotyping of PPF patients showed no significant changes in all markers compared with the healthy controls. However, there was a significant decrease ($p < 0.01$) in CD3 and CD4 T-cells, and a highly significant increase ($p < 0.0011$ in CD 57 T-cells in patients with UC or HCC. In addition. LC and HCC patients showed no significant change in CD3 T-cells compared with controls. In conclusion, the progression of liver diseases is associated with a dysregulation of cellular immune responses. T-lymphocytes and natural killer cells may play a role in the immunopathogenesis of LC and HCC.

Key words: Hepatocellular carcinoma, liver cirrhosis, lymphocyte subsets-Natural killer cells. Flow cytometry.

**DIAGNOSTIC VALUE OF SERUM FIBROSIS
MARKERS (HYALURONIC ACID AND
MATRIX METALOPROTEINASE-2)
AS A MARKER OF HEPATIC
FIBROSIS**

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Abstract

Several biochemical markers have shown promise for the detection of advanced fibrosis and cirrhosis. The aim of the present work is to study the diagnostic accuracy of serum hyaluronic acid (SHA) and matrix metalloproteinase-2 (MMP-2) as indicators for the stages of hepatic fibrosis, and to correlate the liver pathology and liver function tests with serum fibrosis markers. Sixty treatment naive patients with chronic liver disease (30 with chronic hepatitis C (CHC) with or without HBV and 30 patients with cirrhosis). The patients were divided according to Metavir classification of liver biopsy into 3 groups. Group 1 with normal biopsy (12 patients), group 2 -25 patients with mild fibrotic changes (stage 1-2) and group 3 of 23 patients with severe fibrosis (stage 3-4). SHA level was significantly higher in patients with severe fibrosis than patients with mild or no hepatic fibrosis. (378.7 ± 147.5 , 226.2 ± 123.7 and 85.3 ± 52.2 pg/ml) respectively ($P < 0.001$). MMP-2 was also significantly higher in severe fibrosis (group 3) than gr2 or gr1 or 196.2 ± 119.5 , 918.1 ± 175.8 and 841.1 ± 224.5 pg/ml) respectively ($P < 0.001$). SHA and MMP-2 were not correlated to age, S bilirubin, AST, ALT or spleen size. Group 3 was correlated significantly to the SHA and MMP, platelet count, S albumin and liver size but not correlated to AST, ALT, S. bilirubin or spleen size. The specificity of fibrosis markers SHA and MMP-2 in prediction of severe fibrosis were 94.4% and 90.0% respectively and the sensitivity were higher to SHA 90% than

MMP-2 80% but not a predictor of mild or normal biopsy. The cut of value of SHA. MMP-2, platelet count and prothrombin time (FT), in diagnosis of severe fibrosis were 294.84pg/ml, 1003pg/ml., 115.084/cmm, 72.116% respectively.

Conclusion: Measurement of SHA and MMP-2 can be used to differentiate cirrhotic from non-cirrhotic patient and can be regarded as a useful test in the diagnosis of liver cirrhosis

ELECTRICAL ACTIVITY OF THE VAS DEFERENS IS IT OF A CLINICAL VALUE?

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Abstract

Purpose: Bilateral EMG tracing of the electrical activity of the vasa deferentia in normal and pathological conditions to evaluate its diagnostic role in diagnosing the vas deferens disorders affecting ejaculation and infertility.

Material and Methods: This study included 30 young and middle aged males with normal erection and ejaculatory functions (control group). Also included 44 young and middle aged males with infertility and ejaculatory complaints (study group). This study group included 10 cases diagnosed as having bilateral congenital absence of vasa deferentia. 4 cases of unilateral congenital absent vas deferens, 12 cases complaining of anejaculation and 18 diabetics with good erection, but complaining of retrograde ejaculation.

Both groups were subjected to bilateral simultaneous EMG recording of the vas electrical activity from the inguinal parts of both vasa deferentia. The recording was done by a double channel EMG, single potential analysis of cavernous electrical activity (SPACE), developed by Wiest. Germany, using surface electrodes.

Results: The mean age of the control group was 30.03 ± 3.8 years (range 24-37 years). Their EMG tracing of electrical activity of the vas deferens, revealed periodic bursts between phases of electrical silence. These bursts were of slow oscillations with high amplitude and slow frequency. The bursts had a similar configuration, amplitude and duration on both sides, in a given subject. They were synchronous on both sides. The mean duration was 12 ± 2.6 seconds (5-16 seconds) the number of phases 5.4 ± 1.6 and frequency 0.9 ± 0.3 per minute. The mean amplitude was 400 μ V (range 240-500 μ V). The rate of bursts varied between sub-

jects. The study group included 44 men with a mean age of 30.35-5.9 years with no statistical difference when compared with the normal group ($t=1.13$, $P>0.05$). This study group was divided into 4 groups: Group I: included 10 azoospermic men with clinical diagnosis of bilateral congenital absent uasa deferentia. In 9 of them (90%) the EMG tracing revealed electrical silence even when repeated. In one case (10%) the tracing revealed electrical activity like to normal group. In this case the vasa deferentia were found embedded in lipoma of the cords. Group II: included 4 cases with unilateral congenital absent vas deferens. The EMG tracing revealed complete electrical silence on the side of absent vas deferens. The other side revealed normal tracing. Group III: included 12 men who presented by anejaculation. Out of them 4 cases (33.34%) were secondary to drugabuse and their tracing revealed electrical silence. 3 cases (25%) were psychogenic and their tracing revealed normal tracing. 2 cases (16.67%) were secondary to anal prolapse surgery and their tracing revealed electrical silence, one case (8.33%) due to bilateral ejaculatory duct obstruction and its tracing revealed normal tracing, another case (8.33%) was due to a congenital prostatic cyst and its tracing revealed normal tracing. a last case 8.33%), with diabetes discovered during investigations and the EMG tracing was of low voltage potentials with non-synchronization on both sides. Group IV: included 18 diabetics, with good potency and complaining of infertility due to retrograde ejaculation. EMG tracing of the electrical activity of the vasa deferentia revealed low voltage potentials with non-synchronization of these potentials on both inguinal regions in 12 cases (66.67%), electrical silence in 4 cases (22.22%) and normal tracing in 2 cases (11.11%).

Conclusion: EMG of electrical activity of the vas deferens can be characterized for the normal and pathologic vasa deferentia. It is a simple, easy, non radiologic and non-invasive that can be used as a diagnostic tool in investigating the vas deferens disorders affecting ejaculation and infertility.

A COMPARISON AMONG DOXAPRAM, NULBUPHINE AND MEPERIDINE FOR TREATMENT OF POSTANESTHETIC SHIVERING

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Abstract

Postanesthetic shivering (PS) is distressing for patients and may induce a variety of complications. We carried out our study to evaluate the value of Doxapram, Nalbuphine and Meperidine for treating PS. 80 patients were included in the study who undergone general anesthesia for routine general orthopedic or gynecologic surgery and developed shivering within 10 minutes of admission to the recovery room where they are divided into 4 groups; each of 20 patients classified as follows: Group 1 (n = 20) placebo saline group (received iv. saline); Group 2 (n= 20) Doxapram group (received 1.5 mg/kg i.v.) Group 3 (n= 20) Nalbuphine group (received 0.08 mg/kg iv.); Group 4 (n=20) Meperidine group (received 0.4 mg/kg iv.). Treatment that stopped shivering was considered to have been successful. The results demonstrated that 5 min. after treatment with Doxapram, Nalbuphine and Meperidine provided rapid and potent anti-shivering effect on PS, with high response rate of 75%, 80% and 85%, respectively compared with those of placebo saline (0 %) ($p < 0.01$). 15 minutes after injection, the response rates of Doxapram, Nalbuphine and Meperidine were 80%, 85% and 90%, respectively compared with 15% in the saline group. 30 minutes after injection, the response rates of Doxapram, Nalbuphine and Meperidine 85%, 90% and 95%, respectively compared with 20% in the saline group. We concluded that nalbuphine and meperidine prevent PS but meperidine is superior to both Doxapram and Nalbuphine and nalbuphine provides a similar rapid and potent shivering effect so it may be an alternative to meperidine for treating post-anesthetic shivering.

**STRUCTURAL, AERODYNAMIC AND SPECTRAL
CHARACTERISTICS OF IMITATED
TIBETAN CHANTING
(A CASE STUDY)**

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Abstract

The new advances in viewing laryngeal behavior during phonation, measuring aerodynamic forces working across the glottis and analyzing acoustic characters of the sound output make it more possible than ever to understand the biomechanics behind several of our non-traditional singing techniques. This kind of understanding is an essential step towards proper diagnosis and management of any voice/laryngeal disorder that affects the professional voice users of these unique techniques of vocal production. This study will report on the acoustic characteristics, the aerodynamic measures and the gross and fine laryngeal movements in three subjects producing different modes of Tibetan chanting. The relevance of these measures to the quality of voice care for these professionals will be discussed.

ANTERIOR HAIR LINE APPROACH A MORE RELIABLE ONE FOR ORBITO-FACIAL DERMOID

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Abstract

Dermoid cysts are congenital lesions deriving from the ectodermal differentiation of stem cells. The purpose of this study is to evaluate of the surgical results in particular, the aesthetic results of approaching dermoid cysts in the orbito-facial region through anterior hair line incision. Twenty Two patients presented in the period between November 1999 to May 2001, Fourteen patients (63.6%) presented withfronto-temporal dermoids (group I) and 8 patients (36.4%) hadfronto-glabellar dermoids (group II).

Presurgical imaging revealed absence of intracranial extension of the tract. Anterior hair line approach resulted in sufficient surgical exposure, low recurrence rate and excellent aesthetic results.

Keywords: Dermoid cyst. Anterior hair line incision

STUDY OF ANTIBODIES TO B2-GLYCOPROTEIN I, PROTEIN C AND PROTEIN S AS MARKERS OF ARTERIAL AND VENOUS THROMBOSIS IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Abstract

In order to clarify the association between antibodies to phospholipid-binding plasma protein particularly; B2-glycoprotein I, protein C and protein S and thrombotic complications in systemic lupus erythematosus patients (SLE). 42 patients with SLE were selected and 10 healthy subjects were also included as a control group, their age and sex matched with our patients. The Anti phospholipid antibodies (APL Abs) were measured by an Enzyme Linked Immunosorbant Assay (EUSA) system. The thrombotic events were determined by venography, Arteriography, Dopier ultrasound, computed tomography (CT) and magnetic resonant image (MIR). Our result showed that all types of IgG APL Abs were detected in SLE patients (30% for anti-B2-Glycoprotein I, 21% for anti-protein C and 28% for anti-protein S). thrombotic events were detected in 12 of SLE patients (7 arterial and 5 venous). The prevalence of LA and aCL were significantly higher in SLE patients with thrombosis than in those without thrombosis ($P < 0.01$), but there was non significant change between the prevalence of LA and aCL in patients with arterial and venous thrombosis ($P > 0.05$).

Concentration and prevalence of anti-B2-GPI was significantly higher in patients with arterial thrombosis than in those with venous thrombosis ($P < 0.01$). The concentration and prevalence of anti-protein C and anti-protein S Abs were significantly higher in patients with venous thrombosis

than in those with arterial thrombosis ($P < 0.01$). There was non significant change in disease activity score between SLE patients with and without thrombotic events. There was significant correlation between the concentration of anti-B2-GPI Abs and aCL ($r = 6.86, P < 0.01$) and significant correlation between the concentration of Anti-protein C and Antiprotein S Abs ($r = 0.66, P < 0.01$). We concluded that, anti-B2-GPI Abs, anti-protein C and anti-protein S Abs may play a differential role in thrombotic complications where anti-B2-GPI Abs may be associated primarily with arterial thrombosis and anti-protein C and/or anti-protein Abs may be associated primarily with venous thrombosis.

**EPIDEMIOLOGICAL STUDY OF NOSOCOMIAL
INFECTION OF NEONATES ADMITTED TO
BENHA UNIVERSITY NEONATAL
INTENSIVE CARE UNITE**

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Abstract

This cross-sectional short term study was carried-out in the neonatal intensive care unit (NICU) at Benha University hospital. It aims at studying the epidemiological features of nosocomial infection in NICU. The target of this study is one hundred neonates admitted to the NICU along a period of about one year. They were chosen by the systematic method of random sampling. Mothers of the subjects of the study are subjected to a structured Questionnaire for detailed history, thorough physical examination as well as investigations to assess the presence of nosocomial infection & to determine the causative pathogen.

In a trial to trace the possible source of nosocomial infection, swabs from different sites - were taken from the infected neonates, nursing staff, used instruments, as well as the surrounding environment. The results of the study revealed that, the rate of occurrence of nosocomial infection is estimated to be 54%. The use of invasive techniques, prematurity as well as low birth weight are considered risk factors for occurrence of neonatal sepsis in a percentage of 96.21%, 77.77% & 88.86% respectively. Home deliveries as well as normal vaginal deliveries showed higher frequency of statistical significance for the occurrence of nosocomial infection. About 1/4 of neonates diagnosed as having nosocomial infection, died. The microorganism profile of those diagnosed as nosocomial infection showed that the most prevalent organism is coagulase +ve staphylo coccus

(55.5%). followed by *Klebsilla* 37%, *serratia* & *enterobacter* in a percentage of 7.4% for each, *streptococci* & *Candida* (3.7% for each).

The results of swabs taken from the neonates, the nursing staff as well as the surrounding organisms showed the same organisms. So, prevention of nosocomial infection is the responsibility of health care team personnel through the application of effective hospital infection surveillance & control system especially in NICUs.

THE EFFECT OF ACUTE HYPERGLYCAEMIA ON QTc AND QTc DISPERSION IN HEALTHY SUBJECTS

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Abstract

The QTc prolongation, is a condition that predisposes for cardiac arrhythmias and is associated with a high mortality even in apparently healthy population.

The aim of the study was to investigate the effect of acute hyperglycaemia on QTc, QTc dispersion in healthy subjects.

20 healthy subjects (10 males and 10 female) underwent hyperglycaemic clamp by quickly raising plasma glucose concentration to 270 mg/dl and maintaining this level for 2 hours. The same subjects, on another occasion, underwent the same hyperglycaemia clamp with octreotide-somatostatin analogue-infusion to block the release of endogenous insulin.

Systolic and diastolic blood pressure, heart rate, plasma catecholamine concentrations, QTc and QTc dispersion showed significant increase at 120 minutes of the hyperglycaemic clamp. Octreotide infusion did not influence QTc duration, QTc dispersion and the haemodynamic effects of acute hyperglycaemia.

Our results confirm that acute hyperglycaemia produces significant increments of QTc and QTc dispersion in normal subjects and endogenously released insulin is suggested to have no significant or pivotal role.

HOMOCYSTEINE ASSAY IN PATIENTS WITH ACUTE MYOCARDIAL INFARCTION AND THOSE AT RISK FOR CORONARY HEART DISEASE

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Abstract

Background: It was suggested that homocysteine oxidation products as hydrogen peroxide, superoxide anion radical and other reactive oxygen species are injurious to vascular endothelium and so increased total homocysteine was considered as independent risk factor for cardiovascular diseases.

Object: To study homocysteine level in patients with AMI and those with DM and HTN - as established risk factors for coronary heart disease- in comparison to healthy controls this study was planned.

Subject & Methods : This study included 11 patients with recent AMI, 14 with systemic HTN, 15 Diabetics (type 2) and 10 healthy controls .All of comparable age and sex. Homocysteine level was measured by ELISA in the blood of all groups. Simultaneous assay for serum B12 and folic acid was also done by radioimmunoassay technique.

Results: The study revealed a highly significant increase in the homocysteine level between each of the diseased groups (AMI $14. \pm 1.7 \mu\text{mol/L}$; HTN $14.7 \pm 3.3 \mu\text{mol/L}$ and $16.5 \pm 1.7 \mu\text{mol/L}$ for the diabetic group) versus $9.8 \pm 1.9 \mu\text{mol/L}$ for the control group ($p < 0.05$ between each of the diseased groups and the control). No significant decrease in the serum level of folic acid nor that of B12 in any of the diseased groups versus the control group was also noticed ($p > 0.5$).

Conclusion: Homocysteine is a clear risk factor for coronary heart disease. As no difference in homocysteine level between those with AMI and those at risk so homocysteine is only a risk factor not acute phase reactant in acute injury. High homocysteine level in the blood is highly suggested new member in the metabolic syndrome. Still folic acid as well as B12 supplements could be recommended in hyperhomocysteinemia whatever their serum level.

**COMPARISON BETWEEN RECTAL
MISOPROSTOL AND INTRAMUSCULAR
OXYTOCIN / METHERGINE FOR THE
MANAGEMENT OF THE THIRD
STAGE OF LABOR**

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Abstract

Two groups of parturient women, each one hundred, were given either 400 ug misoprostol rectally or combination of 5 IU oxytocin and 0.2 mg methergine IM for the management of the third stage of labor.

Misoprostol group had shorter third stage of labor, less blood loss and postpartum hemorrhage, less incidence of manual removal of the placenta and less side effects.

Rectal misoprostol is safe, effective, and cheap drug for the management of the third stage of labor as a primary line of treatment or in cases in which oxytocin / methergine fail to control post partum hemorrhage.