

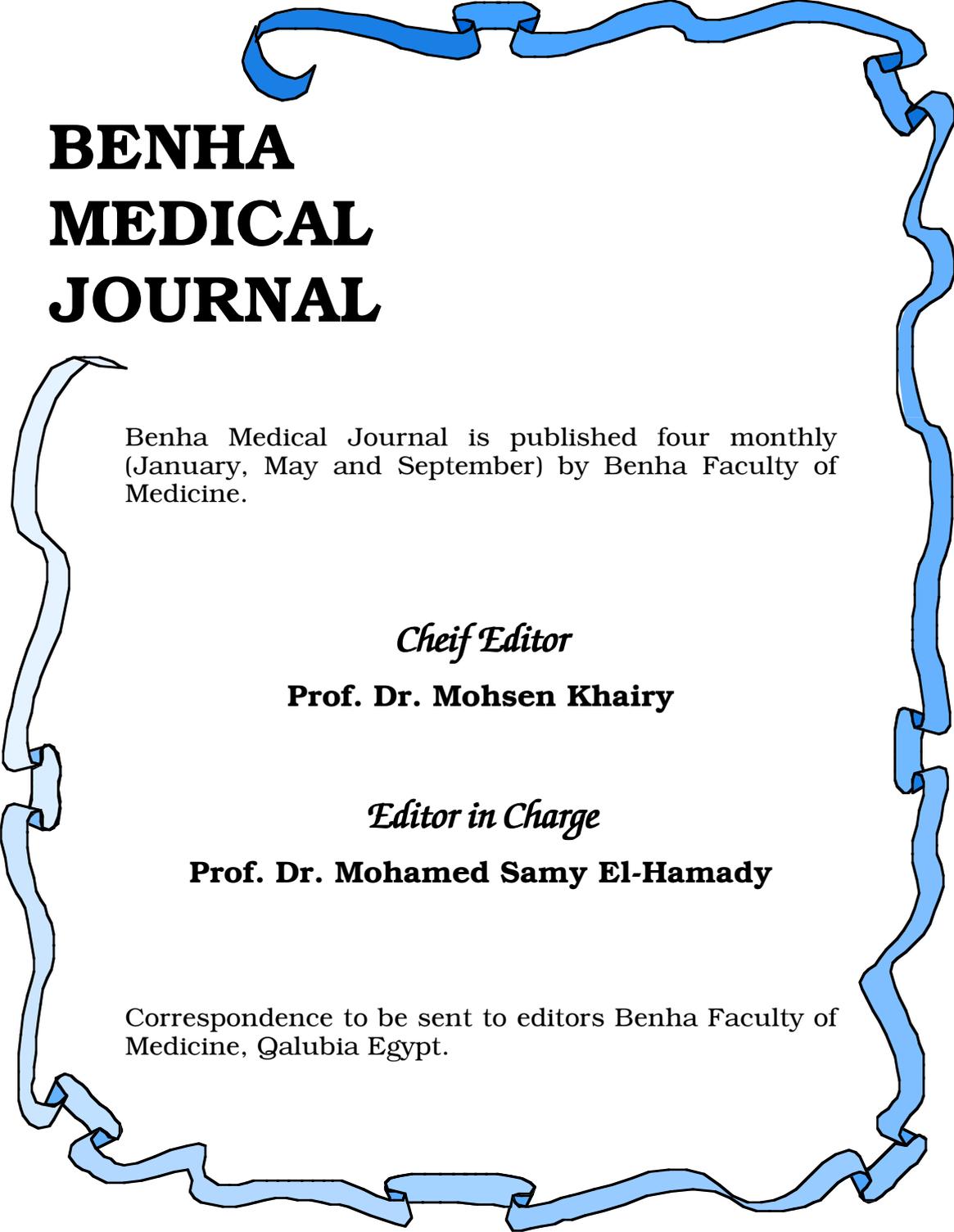
ISSN 1110-208X

BENHA MEDICAL JOURNAL

**Published by
Benha Faculty of Medicine**

**Volume 25 Number 1
Jan. 2008**

BENHA MEDICAL JOURNAL VOLUME 25 NUMBER 1 Jan. 2008



BENHA MEDICAL JOURNAL

Benha Medical Journal is published four monthly (January, May and September) by Benha Faculty of Medicine.

Chief Editor

Prof. Dr. Mohsen Khairy

Editor in Charge

Prof. Dr. Mohamed Samy El-Hamady

Correspondence to be sent to editors Benha Faculty of Medicine, Qalubia Egypt.

Editorial Board

Prof. Dr. Mohamed S. El-Hamady

Prof. Dr. Fawzy E. El-Shahid

Prof. Dr. Nabil E. Khatab

Prof. Dr. Nasr A. Belacy

Prof. Dr. Yousry A. Fekry

Prof. Dr. Mahmoud F. El-Gendy

Prof. Dr. Ahmed A. El-Gazar

Prof. Dr. Khaled A. El-Rabat

NASAL VALVE PULL-UP A METHOD FOR TREATING NASAL VALVE DYSFUNCTION

Hossam M. Abdel Azeem MD

*Department of Otorhinolaryngology, Faculty of Medicine,
Benha University, Egypt*

Abstract

*Problems with the nasal valve are easily overlooked unless one deliberately and consciously seeks to evaluate them. Thirteen percent of patients presenting with nasal obstruction have nasal valve pathology as an associated etiology. **The aim** of this study was to evaluate the efficacy of supero-lateral nasal valve pull-up as a method for treating the obstructed nasal breathing caused by nasal valve dysfunction. **Subjects and Methods:** A nonrandomized study of 32 patients with symptoms of obstructed nasal breathing. The follow-up duration ranged from 5 to 12 months. The inclusion criteria were: 1) Obstructed breathing with medial displacement of the nasal valve complex. 2) A significant nasal valve inward displacement during inspiration. 3) A lack of response to medical and/or surgical correction of other factors associated with the 2 previous criteria. 4) A positive Cottle's sign. The nasal valve was pulled-up with 2 permanent 4-0 polypropylene sutures and fixed superolaterally to the maxillary periosteum and the overlying soft tissue. The point of suspension is midway between the inner canthus and the junction of the piriform aperture and the cheek. Subjective self assessment scores were collected on a 10-point scale (10 as worst) for nasal blockage, headache, snoring, perceived activity restriction from nasal airway obstruction (tiredness) and hyposmia. The objective data were obtained by nasal endoscopy and photographic analysis of the nasal valve angle (NVA). **Results:** All patients reported improvement of nasal blockage. The mean NVA showed significant postoperative increase with significant correlation to the improvement in nasal blockage score. The score is inversely proportional to the angle degree. The surgery markedly improved patients' headache (84% of patients), snoring (64% of patients)*

and tiredness (75% of patients) with significant decrease of visual analog scores. **Conclusions :** *The superolateral nasal valve pull up technique has the advantages of being less invasive, more safe and effective in treatment of nasal valve dysfunction. It corrects the static narrowing by increasing the nasal valve angle as well as the cross-sectional area and the dynamic collapse by spanning support for the lateral wall of the nasal valve.*

Key words: *Nasal valve, valve angle, valve surgery.*

**HORMONAL REGULATION OF LEPTIN
SECRETION FROM ISOLATED ADIPOSE
TISSUE OF MALE RATS**

**Refka Kh. Messiha MD, Hanna El-Sorougy MD,
Atef A. Mansour MD, Khaled A. Ezam MD
and Lashin S. Ali MSc.**

Department of Physiology, Faculty of Medicine, Mansoura University, Egypt

Abstract

Leptin, the product of ob gene expression mainly by the white adipose tissue cells, is a plasma protein hormone appears to act as a key signaling factor for regulating body weight participating in regulation of energy homeostasis. The escalating interest in leptin study is due to its intimate relation to the worldwide prevalent problem of obesity which reached epidemic proportion. Now it's confirmed that one of the main mechanisms of obesity is decreased leptin action. Leptin seems to play dual role in human physiology being subjected to dual control (Caro et al., 1996) under chronic conditions of steady state energy balance, leptin is a static index of the amount of fat stored in the adipocytes, while under non steady state of energy balance situations leptin may be actively regulated by hormonal or nutritional changes.

ASSESSMENT OF HEART RATE VARIABILITY AS AN INDEX OF CARDIAC AUTONOMIC MODULATION IN CONTROL AND DEPRESSED PERSONS

**Khaled A. Ezam MD, Salwa S.Tobar MD*
and Sherif A. Saker MD****

Departments of Physiology, psychiatry and cardiology**,
Faculty of Medicine, Mansoura University, Egypt.*

Abstract

Background: Under steady state conditions, heart rate displays spontaneous beat-to-beat fluctuation. This fluctuation results from the continuous interaction between the neural or humoral control of cardiovascular function. The fluctuation of heart rate around its mean is called heart rate variability (HRV). The mechanisms underlying the relationship between depression and cardiac events remain unclear. A disturbance of cardiac Sympathovagal balance is one of the most plausible candidates in depressed patients.

Aim: To evaluate cardiac Sympathovagal activity in depressed, non cardiac patients.

Study design: A 24-hour Holter electrocardiogram (ECG) was recorded in 15 newly diagnosed depressed patients and 15 healthy age and sex matched control subjects. Sympathovagal balance was evaluated through time domain parameters of Heart rate variability (HRV).

Results: 15th patients with depression disorders were found to have elevated resting heart rate (HR), low heart rate variability (HRV); decreased Mean NNI, SDNN, rMSSD and pNN50.

Conclusion: There is considerable evidence of cardiac autonomic dysregulation

In depressed patients, measured by HRV parameters and these abnormalities may explain the increased cardiac morbidity and mortality rates in these patients.

RECONSTRUCTION OF THE ACROMIOCLAVIULAR JOINT DISRUPTION BY ANCHOR SUTURES: SURGICAL TECHNIQUE AND PRELIMINARY RESULTS

**Yehia Basyoni MD, Abdel-Rahman El-Ganainy MD
and Mazen Aboul-Saad MD**

*Department of Orthopaedic Surgery, Faculty of Medicine,
Mansoura University, Egypt*

Abstract

Over hundred different surgical procedures have been described for the reconstruction of acromioclavicular joint separation: however the use of anchor sutures tied over a small button plate was introduced for the reconstruction because of its biomechanical superiority. Our objective was to propose a new technique of acromioclavicular joint surgery and to evaluate the preliminary results of this technique.

Fifteen patients with a mean follow up of 12 months underwent the acromioclavicular joint reconstruction using anchor sutures and a small button plate. The mean age was 31 years (range 19-48 years). The shoulder was evaluated using the Constant-Murely Shoulder Score and radiographs. Indication for surgery included acromioclavicular joint dislocation Rockwood type IV-V.

All patients returned to their work within 11.2 (range 8-18) weeks after operation. The average constant score at last follow up was 92.8. Postoperative radiographs confirmed anatomic reduction in all patients. Residual subluxation occurred in one patient and dislocation occurred in another. All patients except one were satisfied with results and cosmetic appearance.

Considering its less morbidity, no need of hardware removal, and minimal complications from breakage or migration of metal implants, this new technique offers good alternative in acromioclavicular joint stabilization.

DIAGNOSTIC YIELD OF ESTIMATION OF SERUM COMPLEXED PSA AS A SCREENING TOOL FOR PROSTATE CANCER PATIENTS

Mohamed Abdel Zaher MD & Adel F. Al-Kholy MD*

Departments of Urology & Medical Biochemistry,
Faculty of Medicine, Benha University, Egypt*

Abstract

Objectives: *The present study aimed to evaluate the diagnostic yield of estimation of complexed prostate-specific antigen (cPSA) in random sample of patients with symptoms suggestive of prostate cancer (PC) and had serum PSA of 2.5-20 ng/ml and no previous histologic proof of prostate cancer.*

Patients & Methods: *All patients underwent full history taking, complete physical examination and prior to prostatic examination or any manipulations, venous blood samples were collected for ELISA estimation PSA serum levels. Then, patients underwent trans-rectal ultrasonography (TRUS) to assess the prostate and the adenoma volume and the peripheral zone (PZ) of the prostate was checked. All patients underwent 10-core TRUS-biopsy taking from the peripheral zone of the prostate.*

Results: *The study included 223 male patients fulfilled the inclusion criteria of the study with mean age of 65.7±8 years. Mean prostatic volume was 60.1±14.8 cm³ and the mean PZ calculated volume was 41.8±9.4 cm³. Histopathological examination of core biopsies defined 23 cases with PC (PC group) with a frequency of cancer detection of 10.3% while the other 200 patients were free of PC (Control group). Mean estimated serum tPSA and cPSA levels were significantly higher in PC group compared to its level estimated in control group, while serum fPSA levels were non-significantly lower in PC group compared to control group. Mean PSA densities (PSAD, PZ PSAD, cPSAD & PZ cPSAD) were significantly higher in PC group compared to control group. There was a positive significant correlation between the presence of PC and age of patients and with*

levels and densities of tPSA and cPSA. Using ROC curve analysis to define the most specific predictors of presence of PC revealed that cPSA level was highly specific with AUC=0.987 with a significant difference in favor of cPSA level in comparison to tPSA and fPSA. Using regression analysis defined cPSA level, PZ cPSAD and PZ PSAD as the significant predictors of PC and ROC curve analysis of the three parameters defined PZ cPSAD and cPSA serum level as the highest specific predictors of PC.

Conclusion: *It could be concluded that estimation of serum complexed PSA could define cases of PC with high specificity during screening of patients had serum PSA levels ranged between 2.5 and 20 ng/ml and used in combination with determination of PZ cPSAD are highly significant specific predictors of PC.*

NUCLEAR MATRIX PROTEIN "NMP 22" AS A DIAGNOSTIC TOOL IN URINARY BLADDER CANCER

Ibrahim M. Shedid MD and Wafaa M. Abdella MD

*Departments of Urology and Clinical Pathology,
Benha Faculty of Medicine, Egypt*

Abstract

Objective: *To evaluate the role of urinary nuclear matrix protein NMP22 in urinary bladder cancer diagnosis*

Patients and Methods: *From August 2003 to January 2007, 373 patients, were enrolled in this study in Al Noor Specialist Hospital K.S.A and Urology Department in Benha Faculty of Medicine, patients were complaining of hematuria, LUTS, and bladder mass suspected On U/S examination, after clinical evaluation including complete history, general and local examination especially D.R.E, 50 ml of midstream morning urine samples was taken from all patients and examined for complete urine analysis and for detection of urine level of NMP22 assay, cystoscopy, and TUR resection was done for all the patients and comparative analysis was done for the results of the cystoscopy, histopathology and NMP22 assay results.*

Results: *The results of the present study revealed that there was decreased overall sensitivity (28.2%) and specificity was (75%) of NMP22 in diagnosing transitional cell carcinoma of the bladder in comparison with confirmed cystoscopic positive results (98.8%) but the specificity and sensitivity increases in large invasive tumors to be (56.7%), and specificity (75%).*

Conclusion: *NMP22 could be considered a diagnostic or screening tool only in high grade transitional cell carcinoma, invasive or large advancing tumor, but NMP22 could not replace cystoscopy as the gold standard for cancer bladder diagnosis.*

MINI-FLANK INCISION ASSISTED LAPAROSCOPY VERSUS TRANSPERITONEAL LAPAROSCOPY FOR DISMEMBERED PYELOPLASTY

**Hisham Al-Azaby MD, Hamdy Abdel Halim MD,
Ahmed Abou-Taleb MD, Ibrahim Hafez MD,
Ibrahim Shedeed MD, Badawy Hathout FRCs,MD
and Jaganath Chodankar MS***

Department of Urology, Faculty of Medicine, Benha University, Egypt.

*Urology Unite, Gaber Al-Ahmad Military Hospital, Kuwait**

Abstract

Objective: *To define the impact of the combined approach on the minimally invasive style of laparoscopic approach. Patients and methods: From July 2005 to September 2007, 21 patients with unilateral primary pelvi-ureteric junction (PUJ) obstruction underwent Anderson Hynes pyeloplasty. Patients were divided into two groups. Group 1: consisted of 11 patients who had combined transperitoneal laparoscopic approach and then mini-open approach. The surgical procedure was divided into two steps: laparoscopic dissection of the renal pelvis and proximal ureter and then accomplishing the pyeloplasty through mini-flank (≈ 5 cm), muscle splitting incision which was planned under laparoscopic guidance to be accurately overlaying the PUJ. Group 2: consisted of 10 patients who underwent the whole procedure through laparoscopic approach. Perioperative records and postoperative assessment were compared between the two groups.*

Results: *The mean operating time (135 versus 189 min) and Analgesic requirement (90 versus 36 mg, morphine equivalent) were significantly different between group 1 and 2, respectively. There was no intraoperative complication in both groups and the postoperative complications were minor and similar in both groups ($\approx 10\%$). Postoperatively, time to resume the full activity was significantly different between the groups 1 and 2, at*

2 weeks (54.0 versus 80%, respectively) however, it was similar (100%) at 4 weeks. Postoperative, assessment of the all patients, based on IVU and diuretic renogram at 3 and 6 months, were similar in both groups

Conclusion: *Dismembered pyeloplasty through a combined approach save time and ensures high quality of anastomosis while maintaining the minimally invasive fashion of laparoscopic approach.*

IS THE CURRENT MANAGEMENT OF CHRONIC PROSTATITIS/CHRONIC PELVIC PAIN SYNDROME EFFECTIVE

Ibrahim M. Shedid MD

Department of Urology, Benha Faculty of Medicine, Egypt

Abstract

Objectives: *To re-evaluate the efficacy of the current applied management of chronic prostatitis/CPSS.*

Patients and Methods: *From September 2000 to December 2006, 1690 patients diagnosed as chronic prostatitis/chronic pelvic pain syndrome "CP/CPSS" were managed in this series, in Urology Department, Benha Faculty of Medicine and Al Noor Specialist Hospital K.S.A. We have classified the patients into 3 groups according to presence of pus cells in expressed prostatic secretion or urine sample after massage (VB3) in Stamy's method, and according to NIH/CP classification, the three groups have been subdivided to A and B subgroup. The subgroup A received antibiotics and subgroup B received placebo, anti-inflammatories, plant extract or alpha-blockers. Evaluation of the result of management was done according to NIH-CPSI score. Data from the 3 groups were analyzed and compared.*

Results: *The improved patients were statistically analyzed according to the decrease by more than 25% NIH/CPSI score from the base line. The results of the present study have revealed that there was in significant difference between the improved percentages of patients in subgroup A1 (44.6%) received antibiotics in comparison to patients in subgroup B1 (43.2%) received placebo or other measures in the 1st group $P > 0.05$. In the 2nd group there was significant improvement in subgroup B2 63.5% than group A₃ 24.5%, in the 3rd group there was significant increase in the percentage of the total improved patients but there was no significant difference between the improved patients of the two subgroups A₃, B₃.*

Conclusion: *We concluded from this study that the management of*

Ibrahim M. Shedid

chronic prostatitis/chronic pelvic pain syndrome still a challenge for urologists and there was no significant difference between the percentage of improved patients treated by antibiotics and other treated by placebo or other measures and further research is needed and more studies are required to confirm efficacy of therapies and trial of another measures.

**OUTCOME OF POST-TUR-BT COMBINED
CHEMO & IMMUNO INTRAVESICAL THERAPY
IN THE MANAGEMENT OF PAPILLARY
TRANSITIONAL CELL CARCINOMA OF
THE URINARY BLADDER**

**Ibrahim Shedid MD, Abdel Aziz Omar MD,
Ahmed Abou Taleb MD, Ashraf Abdel Aall MD,
Ahmed M. El- Adl MD and Ahmed Abdel Baky MD**

Departments of Urology Department, Benha Faculty of Medicine, Egypt

Abstract

Objective: *To evaluate the outcome of post-TUR-BT combined chemo- and immune-intravesical therapy in papillary transitional cell carcinoma of the urinary bladder.*

Patients and Methods: *From Sept. 2001 to August. 2007 in Alnoor specialist hospital , Holly Makkah K.S.A and Urology Department, Benha Faculty of Medicine 158 patients of papillary transitional cell carcinoma Ta,T1,T2 were treated by TUR-BT plus combined intravesical chemotherapy and immunotherapy. TUR-BT was repeated and intravesical combined therapy if recurrence occurred on 3,6 months cystoscopic follow up, percentage of the disease-free patient, recurrence, progression and survival with intact bladder were compared and analyzed .*

Results: *Follow up of the patients up to 5 years was done. At median follow up of about 24 months; 82 patients(53.6%) were disease free and recurrence was detected in 31 patients (20%) and progression was in 4 patients (2.6%). The results of the follow up at the end of the 5 years revealed that the disease-free percentage was 64 patients (41.5%), recurrence was detected in 41 patients (26.8%) and progression was (14.4%) in 22 patients were shifted to cystectomy. Overall 5 year survival with intact bladder was 85.6% (131 patients), we did not follow cystectomy patients.*

Conclusions: *Post TUR-BT combined intravesical chemo and immunotherapy is an appropriate option for the management of papillary transitional cell carcinoma of the urinary bladder and could preserve the intact bladder for a long period and should be applied even in muscle invasive T2 tumor before shifting to cystectomy .*

MINI-OPEN BLIND CARPAL TUNNEL RELEASE VIA 1- CENTIMETER TRANSVERSE INCISION ABOVE THE WRIST CREASE VERSUS OPEN RELEASE

Maged M. El-Shennawy MD

*Department of Orthopaedic Surgery and Traumatology
Mansoura University Hospitals, Egypt*

Abstract

Carpal tunnel release has become one of the most popular forms of hand surgery with high success rates. However, scar and post-operative morbidity accounts for most of the reported complications due to the presence of rich cutaneous nerves across the palm liable for iatrogenic injury and releasing of the superficial structures to the transverse carpal ligament as the subcutaneous fat, palmar fascia, and palmaris brevis muscle. Minimally invasive surgical techniques employing endoscopic instruments or special mini-open techniques aimed at avoiding or minimising surgical scars in the palm, reducing scar morbidity, and post-operative pain, whilst enabling earlier and better functions. Between September 2006 and September 2007, a prospective comparative study evaluating the safety and effectiveness of a mini-open technique for blind (not under direct vision) carpal tunnel release using a 1 centimeter transverse incision proximal to the wrist crease, assisted with a 6 mm kuntscher nail and arthroscopic scissors for releasing the transverse carpal ligament, compared with limited open release. Twelve female patients and three male patients (30 wrists), with bilateral carpal tunnel syndrome aged (32-55 years), clinically and electro-physiologically diagnosed, with failed conservative management, were enrolled in this study. All cases were done under local anesthesia. Right hands underwent mini-open procedure, while the left hands underwent limited open release procedure. Details of the technique, patient satisfaction and outcomes are presented. This study revealed that the patients' right hands (mini-open CTR), have an easier postoperative course in comparison with their left hands (limited OCTR), reporting excellent improvement in symptoms severity, functional and cosmetic status post-operatively with high satisfaction, plus no

Maged M. El-Shennawy

encountered neurovascular or major complications. This technique is effective, simple and safe and cost effective. It can be used where endoscopic release is expensive and not widely available.

SINGLE DOSE DICLOFENAC REDUCES AGITATION AFTER SEVOFLURANE ANESTHESIA IN CHILDREN

Hala M. Salah El-Deen MD

*Departments of anesthesia and Surgical Intensive Care
Faculty of Medicine, Mansoura University, Egypt*

Abstract

Introduction: Emergence agitation is a common side effect of sevoflurane anesthesia in children. Diclofenac, because its analgesic properties, might be useful for the management of this adverse effect.

Methods: We studied the effect of Diclofenac recovery characteristics in 50 children aged 6 mo. to 5 yr, scheduled to undergo inguinal herniorrhaphy. All children were premedicated with oral midazolam 0.5 mg/kg

After inhaled induction with sevoflurane, patients were randomly assigned to receive either saline (n=25) or rectal diclofenac 1mg/kg (n=25). Maintenance of anesthesia was with 2% sevoflurane, 50% nitrous oxide and atracurium with mechanical ventilation.

Intra-operative hemodynamic and oxygenation variables are recorded every 5 min. At the end of anesthesia TEO., recovery time, discharge time and incidence of agitation were detected.

Results: There were significant reduction in agitation score and incidence of agitation in diclofenac group without affection the recovery or the discharge time.

Conclusion : We conclude that a dose of diclofenac of 1mg/kg administered after induction of anesthesia reduces the post sevoflurane agitation in children., with no adverse effects.

DEVELOPMENT AND IMPACT OF EXERCISE PROGRAM ON POSTOPERATIVE PULMONARY COMPLICATIONS FOLLOWING LUNG RESECTION

**Karima El-Shamy MD, Abd El-Baset M. Saleh MD*,
Magda A. Ahmad MD*, Shahir Kamal George MD**
and Mohamed Fouda MD*****

*Adult Care Nursing Department, Faculty of Nursing, Mansoura University
Departments of *Chest, **Internal Medicine & ***Cardiothoracic Surgery ,
Faculty of Medicine, Mansoura University, Egypt*

Abstract

Study objective: *To develop and implement an exercise program for patients undergoing lung resection as well as to assess the impact of this exercise program on postoperative pulmonary complication following lung resection.*

Patients and methods: *59 patients underlying lung resection were subjected to: preoperative assessment (including history taking, general laboratory tests, arterial blood gases (ABG), pulmonary function tests, 12-lead surface ECG and color Doppler echocardiography as well as postoperative pulmonary function (3 months postoperative) and hospital stay. Postoperative pulmonary complications were noted according to a precise definition. There were divided to two groups 35 as control and 24 as cases. Cases were subjected to preoperative two weeks physiotherapy. The risk of PPCs associated with selected factors was evaluated. The operations performed included 13 RUL, 9RML, 13RLL, 15LUL and 9 LLL.*

Results: *fifty-nine patients were studied (35 patients as control and 24 patients as cases). They were age, sex, BMI, pulmonary function, ABG, and general lab. matched. They were also matched regarding preoperative cardiovascular evaluation criteria. PPCs occurred in (12) cases of (35) patients (34.3%) in control group and (2) patients in intervention group (8.3%). The number of days in the hospital postoperatively de-*

creased with the intervention group. There was no significant difference between cases developed postoperative complication and non-complicated cases regarding pre and postoperative pulmonary function tests.

Conclusion: Exercise program evaluated in this study can decrease PPCs and postoperative hospital stay. In addition preoperative pulmonary function tests do not appear to contribute to the identification of high-risk patients.

Key words: Pulmonary complications; Pulmonary function tests; Cardiac function tests; Risk factors; Lung Resection

Abbreviations: FEV1-ppo = predicted postoperative FEV1; PPC= post-operative pulmonary complication, RUL= right upper lobe, RML= right middle lobe, RLL= right lower lobe, LUL= left upper lobe and LLL= left lower lobe.

TRANSPERITONEAL LAPAROSCOPIC PYELOLITHOTOMY : INITIAL EXPERIENCE

Hisham Al-Azaby MD

Department Of Urology, Benha Faculty Of Medicine, Egypt

Abstract

Objective: *to define the feasibility, safety and efficacy of transperitoneal laparoscopic pyelolithotomy in treatment of renal pelvic stones .*

Patients and Methods: *In the period between March 2004 and November 2006, 15 patients were subjected to Transperitoneal laparoscopic pyelolithotomy among them three had an associated upper calyceal stones (8 - 11 mm). Inclusion criteria were single renal pelvic stone in partial or complete extrarenal pelvis (with or without associated single calyceal stone) with no history of previous ipsilateral upper tract open surgery or pyelonephritis. The mean stone size was 2.7 cm (range 2-3.5 cm). Out of the fifteen patients, 4 patients were refractory to ESWL, one had a failed PCNL and the remaining ten patients were managed laparoscopically as first choice. All patients had a double J stent fixation. Transpyelotomy, a rigid nephroscope or short ureteroscope had been used to localize and remove associated calyceal stone.*

Results: *Transperitoneal laparoscopic stone removal was successful in 13 out of 15 patients (86.6%) while the remaining 2 patients (13.4%) had open conversion. The main reason for open conversion was extensive fibrosis. In laparoscopically successful patients, the operative time was ranged from 100-190 min (mean 135 min). Estimated blood loss was 40-120 mL (mean 65 mL), analgesic intake was 150±75 mg of diclophenac sodium, hospital stay was 3.1 days and the postoperative urine leakage was ranged from 1-10 days (mean 2.3 days). No major intraoperative or postoperative complications was detected, however minor postoperative complications in the form of a high grade fever, 3 days ileus and prolonged urinary leakage for 10 days were recorded in 3 patients and all were resolved conservatively.*

Hisham Al-Azaby

Conclusion : *Transperitoneal laparoscopic pyelolithotomy is feasible, safe and effective in treatment of renal pelvis stones either primary or as a salvage procedure after failed ESWL or PCNL.*

Key words : *Laparoscopy ; trans-peritoneal ; renal pelvis; stones.*

URETEROSCOPIC LITHOTRIpsy OF URETERIC STONES; HOLMIUM : YAG LASER VERSUS PNEUMATIC LITHOCLAST

**Hisham Al-Azaby MD, Ahmed Abou- Taleb MD,
Hamdy Abdel Halim MD, Badawy Hathout FRCs,MD
and Jaganath Chodenkar MS***

Department of Urology, Faculty of Medicine, Benha University, Egypt.

*Urology Unit, Gaber Al-Ahmad Military Hospital, Kuwait**

Abstract

Objective: *To compare efficacy and safety of pneumatic lithoclast (PL) and Holmium: YAG laser lithotripsy (LL).*

Patients and Methods: *From May 2004 to October 2006, ninety patients with single ureteric stones of 10 - 20 mm size underwent a single session of ureteroscopic lithotripsy with either pneumatic lithoclast (40 patients) or holmium: YAG laser (50 patients). A 9/ 9.8 Fr semi rigid ureteroscope was used in all patients. Holmium: YAG laser with 365m probe was employed in LL group and pulse frequency was set between 5 - 10 HZ at a power of 10 - 12W. Pneumatic lithoclast with single or continuous pulse mode was used accordingly in PL group. Success is defined by fragmentation of the stone into fragment not bigger than 3 mm with stone free status achieved 6 weeks postoperatively, by single session lithotripsy without retrograde stone migration to pelvicalyceal system. Patients were followed by plain KUB X ray or plain helical CT till stone free status Then underwent IVP evaluation 3 months postoperatively.*

Results: *Both groups were demographically homogenous. Fragmentation into small that can be removed easily with stone basket or forceps or pass eventually was higher in LL than PL group (96% versus 80%) and the stone free status was achieved in 94% in LL and 75% in PL group. Partial ureteral perforation was detected in 7.5% versus 2% in PL and LL group. Hospital stay was 2.9 versus 1.7 days in PL and LL group, respectively. Time to achieve stone free status was shorter in LL than PL group (22 versus 37 days).*

Conclusion: Holmium:YAG lasertripsy is superior to pneumatic lithotripsy since it effectively fragments all stone types and sizes into smaller fragments even if impacted and If it used with care, operative and postoperative complications is negligible.

**HEPATITIS A AND FULMINANT
HEPATITIS A VIRAL INFECTION :
RISK FACTORS AMONG CHILDREN
OF MENOUIYA GOVERNORATE**

**Magdy Anwer MD, Taghreed M. Farahat MD*
and Mahmoud Abu Salem MD****

*Department of Ped National Liver Institute,
Departments of Community* and Occupational Medicine**,
Menoufiya Faculty of Medicine, Egypt*

Abstract

Hepatitis A viral infection is a common disease among Egyptian infants and children , although it has a benign course in the great majority of cases , severe fulmination which may be fatal can occur. In this study we try to highlight the risk factors associated with both acute hepatitis "A" and that of fulminant cases in attempt to propose preventive measures for both conditions. The study was carried out on 80 children "50 with hepatitis A and 30 fulminant cases along with 50 control cases of matched age and sex. All children were subjected to questionnaire assessing the hygienic measures , housing, food habits , type of feeding, past history of diseases, contaminated needle injection operations blood transfusion and history of drug administration. Anthropometric measures were recorded for all children who subjected to investigation included CBC, blood sugar , liver and renal function test, serological marker of HAV, HBV, HCV and abdominal ultrasound. The study revealed that the major risk factors of fulminant hepatitis A include, medical history of infantile diabetes and bilharziasis, drug history of diuretics and anticonvulsant intake, elevation of serum bilirubin "total bilirubin" > 9.56mg/dL, direct bilirubin > 5.11mg/dL , elevation of AST > 635.78u/L and ALT > 365.78u/L, GGT > 982.62u/L and ALP > 756.91u/L , prolonged prothrombin time "more than 25.87sec" and prothrombin concentration < 40.67% , reduced Hb level "< 7.4gdL", malnourishment "weight / age % < 1.97, weight / height %

Magdy Anwer, et al...

< 0.15, MAMC < 11.65cm and TSF < 0.84mm) and lastly reduced hepatic artery resistive index < 0.63, low socioeconomic standards, artificial feeding , bad personal hygiene and medical history of neonatal jaundice and anemia.

Hb = hemoglobin

MAMC= Mid arm muscle circumference

TSF = Triceps skin fold thickness

DUODENAL TUBE TEST IN THE DIAGNOSIS OF BILIARY ATRESIA

**Magdy Anwer MD, Mohamed Elgendy MD,
Mohsen Hasan MD and Elham Fathey M.B.B.Ch**

Department of Ped. National Liver Institute Menoufiya University, Egypt

Abstract

Biliary atresia "BA" is a main cause of severe liver damage in infants. Successful surgical treatment is related directly to the early and rapid diagnosis. The aim of this study was to determine specificity, sensitivity and predictive value of duodenal tube test "DTT" in diagnosis of biliary atresia in a series of 20 infants with cholestatic jaundice. The inclusion criteria include a clay coloured stool and a direct bilirubin level > 2mg/dL.

The study protocol include thorough history and clinical examination liver function tests complete blood count, abdominal ultrasound. TORCH screen, HIDA scan and percutaneous liver biopsy.

A nasoduodenal tube was placed at the distal duodenum and the fluid was collected by gravity every 2 hours for 24 hours.

DTT was considered bile positive when yellow biliary fluid was observed.

The patients with bile +ve DTT were not explored surgically and cholestatic workup was completed. Laparotomy and intra-operative cholangiography was indicated for bile -ve DTT patients and porto-enterostomy was done when biliary atresia was identified.

The result of the study show that 13 cases were Bile -ve DTT and 7 cases were Bile +ve DTT.

Sensitivity, specificity, positive and negative predictive values of DTT vs HIDA scan were 85%, 71%, 80% and 85% respectively.

Sensitivity, specificity, positive and negative predictive values of DTT vs percutaneous liver biopsy were 87%, 100%, 100% and 71% respectively. Lastly all of these 4 parameters were 100% on comparing DTT with intra-operative cholangiography.

VARICOCELECTOMY UNDER LOCAL ANESTHESIA

Abdel Aziz A. Omar MD

*Department of Urology, Benha Faculty of Medicine
Benha University, Egypt*

Abstract

Objective : *To assess the safety, efficacy and morbidity of subinguinal varicocelectomy performed under local anesthesia .*

Patients and Methods : *Between May 2003 and May 2006, 47 patients underwent subinguinal varicocelectomy (30 bilateral and 17 unilateral). All varicocelectomies were performed under local infiltrating anesthesia and intravenous sedation when needed. A transverse subinguinal approach was chosen and internal spermatic artery and lymphatics within the cord were spared with the aid of optical magnifying loop and irrigation with diluted warm papaverine.*

Results : *All varicocelectomies were performed on an outpatient basis. The average operative time was 37±13 minutes for unilateral cases and 58±13 minutes for bilateral cases. All patients were discharged 3 to 5 hours following surgery. No intraoperative complications occurred. Only 17 cases (36%) needed intravenous sedation during operation. At a mean follow up of 12 months, 2 patients (4.2%) developed mild to moderate hydrocele and 2 patients had recurrence of varicocele. No cases of testicular atrophy were observed. Semen parameters (sperm count, morphology and motility) significantly improved in all patients.*

Conclusion : *Subinguinal varicocelectomy under local anesthesia is an attractive approach that allows varicocele ligation in a minimally invasive, effective way, and associated with rapid recovery, minimal morbidity and cost effective.*

Key words : *Varicocelectomy, Local anesthesia, Infertility.*

**SERUM TOTAL SIALIC ACID AND
CATHEPSIN-D INCREASE THE ACCURACY
OF FREE-TO-TOTAL PSA RATIO IN DIAGNOSIS
OF BPH AND PROSTATE CANCER**

Abdel Aziz A. Omar MD

*Department of Urology , Benha Faculty of Medicine,
Benha University, Egypt*

Abstract

Objective : *To evaluate the combination of free-to-total PSA ratio, serum total sialic acid and serum cathepsin-D in differentiation of patients with benign prostatic hyperplasia from those with prostate cancer.*

Patients and Methods : *From June 2004 to June 2007, sixty eight patients with ages ranging from 51 to 80 years, and a control group of 25 healthy males volunteers were included in this study. Blood samples were obtained from every patient and control by venipuncture before any manipulation of the prostate to assay total PSA (t/PSA), free PSA (f/PSA), total sialic acid (TSA) and cathepsin-D. All patients had serum total PSA less than 20 ng/ml. TRUS examination of the prostate and TRUS guided biopsy were done to all patients. The patients were classified in two groups, the first group included 38 patients, with histopathologically proved BPH. The second group included 30 patients with organ confined or locally advanced prostate cancer.*

Results : *Mean serum level of total sialic acid and mean serum cathepsin-D were significantly elevated in patients with prostate cancer compared with those of controls and patients with benign prostatic hyperplasia. Patients with prostate cancer showed statistically significant lower free-to-total PSA ratio in comparison to those of benign prostatic hyperplasia.*

Conclusion : *The combined measurement of free-to-total PSA ratio with total sialic acid and serum cathepsin-D elevate the efficacy of free-to-*

Abdel Aziz A. Omar

total PSA ratio in differentiation between benign prostatic hyperplasia and prostate cancer.

Key words : Sialic acid, cathepsin-D, prostate specific antigen (PSA), prostate cancer.

MEDICOLEGAL ASPECTS OF DEATHS DUE TO FATAL TRAUMATIC HEART INJURIES

**Ola G. Haggag MD, Ibrahim S. El-Gendy MD,
Ibrahim S. Zamzam MD
and Asmaa Y. Abd El-Khalek M.B.B.Ch.**

*Departments of Forensic Medicine and Clinical Toxicology,
Benha, Faculty of Medicine, Egypt*

Abstract

Traumatic injuries account for the majority of unnatural deaths throughout the world with cardiac trauma being the leading cause of death among these victims. Understanding the mechanisms of injury as well as complications associated with cardiac trauma is important from both clinical and legal point of view. Traumatic cardiac injuries are considered one of the most commonly overlooked injuries in patient who died from trauma. This study aimed to investigate the cases of fatal traumatic heart injuries that had been received at morgue of Cairo during the period from January 1st 1996 to December 1st 2000. The aim was to find out the incidence of fatal traumatic heart injuries, the type of traumatic heart injuries, the causative agent, the manner of infliction in fatal traumatic heart injuries and if there is a pattern of fatal traumatic heart injuries, whether it could be possible to find out the risk factors of these injuries. In this study, the incidence of cardiac injury have constituted (183) 7.5% of all cases (2, 410) that were dissected in the same period of the study. The mean age of the cardiac injuries victims was 29.7 years. Male represent 167 (91.3%) of 183 cases whereas female represent 16 (8.7%) cases. Penetrating trauma form 171 (93.4%) of all cases, whereas blunt trauma have constitute 12 (6.6%) of all cases. The causes of cardiac injuries were: stabbing 140 (76.6%), firearm (shooting) 31 (16.9%), fall from height (5 = 2.7%), other blunt (5 = 2.7%) and traffic Accident (2 = 1.1%). Knife was the main causal instruments represent 138 (75.5%). Manner of death in fatal cardiac injuries was : homicide in 159 (86.9%) of cases, accidental in 15 (8.2%) of cases, suicidal in 8 (4.4%) of cases and undetermined in 1 (0.5%) of cases. The left ventricle was the most common

wounded chamber. Represent 82 (44.8%) followed by right ventricles 60 (32.8%) then Right atrium 7 (3.8%) and lastly Left Atrium 2 (1.1 %.) About 118 (64.5%) of cardiac injuries victims died at scene of crime and 22 (12.0%) during transportation whereas 43 (22.5%) reach hospital alive and then died. Regard 1ry cases of death the isolated cardiac injury represent 157 (85.8%). At the end of our study we noticed that cardiac Injuries are very important due to: high incidence low mean age of the victims and high prevalence of homicidal cases.

**EVALUATION OF AUTOIMMUN SCORING
SYSTEM IN AUTOANTIBODIES SEROPOSTIVE
AND SERONEGATIVE CHILDREN WITH
AUTOIMMUNE HEPATITIS**

**Hatem A. Konsowa MD, Behairy E. Behairy MD,
Mohamed T. Badr MD*, Elhamy A. Ahmad MD**
and Ehab M. Salem MSc.**

*Departments of Pediatric, Pathology * and Clinical Pathology ***

National Liver Institute , Menoufiya University, Egypt

Abstract

The scoring system of autoimmune hepatitis that was defined by the International AUTOIMMUNE HEPATITIS GROUP (IAHG) in 1999 was applied on thirty seven children with autoimmune hepatitis (AIH) from the attendants of Pediatric Department of National Liver Institute (NLI) , Menoufiya University . Thirty three cases (89.2%) were seropositive to one or more of conventional autoimmune antibodies of AIH { antinuclear antibodies (ANA), smooth muscle antibodies (SMA), and antibodies to liver / kidney microsome type 1 (anti-LKM-1) } and 4 cases (10.8%) were seronegatives. No statistically significant difference were found between the two groups as regards clinical presentations, the results of liver function tests, histopathological findings, hypergammopathy, mean of scoring system before and after treatment as well as the mean of scoring system after response and / or relapse after treatment . These results point to the reliability of using the autoimmune scoring system to uncover cases of autoimmune hepatitis in patients seronegative for autoimmune markers in children.

**CAN MEASUREMENT OF SERUM LIPOPROTEIN
(a) AND APOLIPOPROTEIN-B BE OF
PROGNOSTIC VALUE IN PATIENTS WITH TYPE
II DIABETES MELLITUS WITH MYOCARDIAL
INFARCTION AND PERIPHERAL
VASCULAR DISEASE?**

**Shahir K. George MD, Khaled A. Mowafy MD
and Hossam Zaghloul MD**

*Internal Medicine, General Surgery (Vascular Surgery Unit)
and Clinical Pathology Departments, Mansoura University, Egypt.*

Abstract

Background: Current clinical guidelines require that five indices (total cholesterol, LDL cholesterol, HDL cholesterol, triglycerides and the total/HDL cholesterol ratio) be measured or calculated to assess the lipid related risk of vascular disease. Recently, quantification of plasma Lp(a) and Apo-B was proposed as recent clinical markers that will allow better prediction of coronary and peripheral arterial disease. Aim of the work: This study prospectively examined whether high levels of Lp(a) and Apo-B have a significant risk and prognostic value in type II diabetic patients with myocardial infarction and peripheral vascular disease. **Material and Methods:** The patients included in the study were selected properly from outpatient clinics of Vascular Surgery Unit as well as Internal Medicine Department (Cardiovascular Unit), Mansoura University. The patients were divided into 4 groups: Group I (n=15): Type II DM with no CAD and no PVD. Group II (n=15): Type II DM with history of myocardial infarction and No PVD. Group III (n=15): Type II DM with no history of myocardial infarction but have symptomatic PVD. Group IV (n=15): Type II DM with history of myocardial infarction and have PVD. Patients with acute illness or taking Niacin, Estrogen replacement or antibiotics were excluded. All patients were subjected to thorough history taking, cardiovascular and peripheral vascular system evaluation including BMI, ABI, ECG, Doppler echocardiogram as well as peripheral vascular angiography. Laboratory

evaluation of our patients include assessment of diabetic state, HbA1c, standard lipid profile parameters as well as evaluation of Lp(a) and Apo-B. **Results:** Serum level of Lp(a) and Apo-B showed highly statistically significant results when comparing group I with any group of type II diabetic patients complicated with either MI or PVD ($P < 0.001$). However, serum apo-B level was highly significant in those complicated with PVD ($P < 0.001$), while serum Lp(a) was statistically higher in those having myocardial infarction ($P = 0.03$). **Conclusion:** Our study revealed that elevation of serum level of both Lp(a) and Apo-B were significantly correlated with occurrence of myocardial infarction and different grades of peripheral vascular insufficiency in type II diabetic individuals. However, increased serum level of Lp(a) showed higher significant prediction for occurrence of MI while, elevation of serum level of Apo-B predict more the occurrence of PVD among our patients. **Recommendation:** Evaluation of serum Lp(a) and Apo-B levels should be considered a new risk factor and of prognostic value for occurrence of vascular complications in type II diabetic patients. More population-based prospective studies are needed to answer the question definitively of whether Lp(a) and Apo-B levels are more predictive of CAD and PVD in type II diabetic individuals than the traditional lipid parameters.

SERUM NON-PROTEIN BOUND IRON : A USEFUL PROGNOSTIC MARKER OF NEONATAL ASPHYXIA

Soha Abdel Hady MD and Yasser M. Ismail MD*

Departments of Pediatrics and Clinical and Chemical Pathology
Faculty of Medicine, Benha University, Egypt*

Abstract

Background: Four million infants suffer from birth asphyxia all over the world each year; of them, one million dies and a similar number will develop serious sequelae; including hypoxic ischemic encephalopathy (HIE). A better understanding of the pathogenesis of this event and its early identification is highly required. The role of non-protein bound iron (NPBI), lactate, and other laboratory and clinical criteria as diagnostic and prognostic markers were studied.

Methods: This study included 25 asphyxiated neonates and 25 healthy matched neonates as a control group. Both groups were subjected to clinical assessment, routine laboratory tests, serum lactate and NPBI measurements. Clinical follow-up was done every three months till the age of 1 year. Developmental screening test was done every six months using Denver Developmental Screening Test (DDST).

Results: Serum lactate levels were found to be significantly higher in the HIE group compared to the control group ($t = 15.13$, $P < 0.001$). HIE group (were divided into mild (10), moderate (7) and severe (8)) according to sarnat classification and there was a significant elevation in serum lactate levels in severe HIE in comparison to mild cases ($P < 0.05$). Statistical analysis of serum NPBI levels in control group and HIE group revealed that there was a significant increase of NPBI in HIE group in comparison to control group ($t = 7.02$ $P < 0.001$, $t = 9.89$ $P < 0.001$, $t = 13.3$ $P < 0.001$ for mild, moderate, and severe subgroups respectively). One way anova test revealed a significant elevation of the level of NPBI with the increase of severity in the studied subgroups (mild, moderate and severe) indicating that there is a correlation between the level of NPBI and the severity of the clinical presentation of HIE ($F = 52.37$, $P < 0.001$). ROC curve

was used to test the performance and clinical value of NPBI for predicting neurodevelopment outcome, and it indicated reliable performance for NPBI (ROC area under curve was 0.95). We found a significant negative correlation coefficient between the level of NPBI and pH ($r = -0.5794$, $P < 0.001$), Na^+ ($r = -0.06084$, $P < 0.05$), Ca^{++} ($r = -0.7511$, $P < 0.001$), Apgar score at 1 minute ($r = -0.5766$, $P < 0.001$), Apgar score at 5 minute, ($r = -0.5248$, $P < 0.001$) and pO_2^- ($r = -0.2668$, $P < 0.05$). A positive correlation coefficient was found between the level NPBI and HCO_3 ($r = 0.3568$, $P < 0.05$), urea ($r = 0.2681$, $P < 0.05$), creatinine ($r = 0.5552$, $P < 0.001$), pCO_2 ($r = 0.6053$, $P < 0.001$), lactate ($r = 0.5927$, $P < 0.001$), and K^+ ($r = 0.0855$, $P < 0.05$). All HIE cases devoid of neurological complications (manifested by seizures) had a normal development in contrast to HIE cases which complained from seizures (75%, 9 of 12 cases) after 6 months, and (81.8%, 9 of 11 cases) after 12 months had developmental delay tested by DDST. All of neurologically complicated cases (presented with seizures) had a significant elevation of the serum level of NPBI ($P < 0.001$).

Conclusion: Serum NPBI assay may be a reliable early indicator of intra and extra-uterine oxidative stress and brain injury, with a prognostic value regarding HIE.

Recommendation : use of free iron scavengers may be indicated of those cases with increased NPBI and eventual threat of HIE occurrence with its catastrophic complications.

Key words: Iron, NPBI, Lactate, neonatal, infant, asphyxia, prognosis.

Abbreviations: HIE = hypoxic ischemic encephalopathy; NPBI = non-protein bound iron; DDST = Denver Developmental Scoring Test.

MUC5B EXPRESSION IN MIDDLE EAR EFFUSIONS : THE MAIN GEL-FORMING MUCIN RESPONSIBLE FOR VISCOUS PROPERTIES OF MIDDLE EAR EFFUSIONS

Mahmoud El-Sayed Ali MD, FRCS

E.N.T. Dept. Mansoura Faculty of Medicine Mansoura, Egypt

Abstract

Introduction : *Several mucin genes are expressed in the middle ear mucosa resulting in the development of middle ear effusion. However, the detailed mucin protein expression in middle ear effusions has not been studied in individual effusions.*

Aim of the study : *This study aimed to explore the expression patterns of the 3 main secretory mucins, known to be expressed in the airways, in individual middle ear effusions with studying the possible correlation with the effusion viscosity.*

Methods : *Middle ear effusions were collected under general anesthesia from 30 children with otitis media with effusion. The viscosity of individual effusions was studied. Mucins were extracted from the individual effusions and their antigenic identity was studied with ELISA.*

Results : *Mucoid effusions have significantly higher viscosity and mucin content than serous effusions. MUCs2, 5AC and 5B were expressed in middle ear effusions within a wide range. MUC5B was the most abundant mucin with significantly strong positive correlation with the viscosity of middle ear effusions.*

Discussion : *Middle ear epithelium expresses MUC5B as the major secretory mucin which is likely to be the main determinant of the viscosity, and hence physical and biological characteristics, of middle ear effusions. A secondary role is played by MUC5AC and, to a small extent, by MUC2. This could have significant clinical implications.*

Conclusion : *MUCs5B, 5AC and 2 are expressed in middle ear effusions with MUC5B representing the major secretory mucin which is also*

Mahmoud El-Sayed Ali

the main determinant of mucin viscosity. The clinical implications of these findings need further studies.

SINGLE-SHOT LUMBER EPIDURAL MORPHINE FOR OPEN KIDNEY SURGERY: EFFECTS OF CO-ADMINISTRATION OF BUPIVACAINE OR ROPIVACAINE

Ahmed A. Shorrab MD and Ahmed Al-Shal MSc.

*Departments of Anesthesia, and Urology,
Faculty of Medicine, Mansoura University, Egypt.*

Abstract

Background and objectives: *Presurgical epidural analgesia can effectively attenuate peripheral and central sensitization to pain. In a blind-randomized study, we investigated the effects of presurgical administration of single-shot epidural morphine alone or with co-administration of bupivacaine or ropivacaine. The outcome measures were postoperative analgesia, side effects and surgical stress.*

Methods: *Ninety patients undergoing open kidney surgery were randomly allocated to receive presurgical epidural analgesia with morphine 3 mg in normal saline (Group MS), morphine 3 mg plus bupivacaine 50 mg (Group MB) or morphine 3 mg plus ropivacaine 75 mg (Group MR). All epidural solutions were prepared in equal; 20 ml sealed aliquots. Patients were observed during operative period for hemodynamics and the need for deepening anesthesia. During postoperative period, analgesia was assessed with the visual analog scale; VAS. Venous blood samples were withdrawn at the morning of operation and the morning of first postoperative day for measuring serum cortisol level.*

Results: *Patients in MS group needed higher inspired isoflurane concentration than patients in the other two groups. During positioning for surgery, more patients in MB (90%) and MR (93%) groups were treated with ephedrine to treat hypotension compared to MS (20%). No differences in pain scores were observed among the patients at rest but during cough or mobilization, more patients in MS group reported significantly higher pain scores at 8, 12, 24h postoperatively. Analgesic drug consumption was higher in MS group than the other two groups; $P < 0.05$. Nausea and*

pruritus showed no significant differences among the three groups. Serum cortisol levels were comparable in all patients and showed no significant differences among the patients before and after operation.

Conclusions : *Presurgical administration of epidural morphine-alone or with -bupivacaine or –ropivacaine provide effective analgesia during rest and attenuate the stress response to surgery. The addition of either bupivacaine or ropivacaine to epidural morphine improves analgesia during mobilization.*

Keywords: *Technique; single-shot epidural, Pain; postoperative, Drug; morphine, Local anesthetic; bupivacaine, ropivacaine.*

PROGNOSTIC VALUE OF EPIDERMAL GROWTH FACTOR RECEPTOR AND P27 PROTEIN EXPRESSION IN COLORECTAL CARCINOMA

Ragaey R. Fahmy MD

*Department of Pathology, Benha Faculty of Medicine,
Benha University, Egypt*

Abstract

Clinicopathological data and the expression of direct cellular growth, epidermal growth factor receptor (EGFR) and tumor suppressor gene p27 were studied by immunohistochemistry on paraffin-embedded sections of 50 cases of primary colorectal carcinoma (CRC) in Egyptian patients, to evaluate their role in predicting patient's prognosis. EGFR was expressed in 26 out of 50 cases (52%). There is a significant correlation between expression of EGFR and tumor differentiation ($p < 0.001$) and 5-year survival rate ($p < 0.001$). EGFR expression had no statistically significant correlation with clinicopathological parameters including histological type, size, site, and stage. Lack or low p27 expression was noted in 15 out of 50 (30%) cases of CRC ($p < 0.05$). This altered expression was significantly higher in proximal cancer ($p < 0.05$), mucinous tumors ($p < 0.001$), poorly differentiated histology ($p < 0.01$). Overall survival was better in the patient group with altered level of p27 expression, although the difference does not reach statistical significance ($p > 0.05$). In conclusion, EGFR overexpression has been found to be related to a poor prognosis of CRC, and loss or p27 protein expression was associated with poorly differentiated CRC and may be part of the genetic pathway, which is responsible for the development of some CRC.

**DETERMINATION OF THE PROGNOSTIC VALUE
OF CYCLIN D1, C-ERB B-2, KI-67 AND THE
NUCLEOLAR ORGANIZER REGIONS
(AGNORS) IN BREAST CANCER**

Ragaey R. Fahmy MD

Department of Pathology, Benha Faculty of Medicine,
Benha University, Egypt

Abstract

Four different types of measurements of prognostic factors (cyclin D1, C-erb B-2, Ki-67 and AgNORs) were applied to a series of 70 breast lesions representing, 35 cases of invasive ductal carcinoma, 10 cases of invasive lobular carcinoma, 5 cases of tubular carcinoma, 10 cases of ductal carcinoma in situ, 10 cases of atypical ductal hyperplasia (ADH), in addition to 7 cases of normal breast tissue as a control, in combination with clinicopathological parameters to evaluate their prognostic significance in breast cancer. Expression of cyclin D1 is negative in atypical ductal hyperplasia (ADH) and ductal carcinoma in situ (DCIS). However, in 29/50 (58%) of invasive cancer breast, positive expression of cyclin D1 was observed. There is a significant association was observed between cyclin D1 expression and distant metastasis, recurrence, and five-year survival rate of the patients with breast cancer. There is also a significant correlation between C-erb B-2 expression and distant metastases, recurrence and 5-year survival rate. The Ki-67 label index and AgNORs count was found to correlate significantly and increased gradually with progression of breast lesions. The AgNORs size, shape and distribution was found to show a characteristic difference between benign, atypical and malignant groups. Malignant cells were characterized by an irregularly scattered distribution of AgNORs and by a pleomorphic size and shape of the dots in comparison to the round, uniform and regular size and shape of the AgNORs dots in benign lesions. Positive expression of cyclin D1, C-erb B-2, Ki-67 and high AgNORs score could be serve as a poor prognos-

Ragaey R. Fahmy

tic markers for patients with breast carcinoma independent of nodal metastases and clinical parameters, also expression of cyclin D1 could help in diagnosis of early invasion of breast carcinoma.

FACTORS ASSOCIATED WITH INCREASED INSULIN RESISTANCE IN NON-DIABETIC PATIENTS WITH CHRONIC HEPATITIS C

**Hassan Rizk MD, Walid El-Sherbiny MD*,
Ibrahim Abdel-Aal MD** and Sally Abed MD***

Professor of Internal Medicine, Lecturer of Tropical Medicine**,
Lecturer of Clinical Pathology(3), Resident of Tropical Medicine**
Mansoura University Hospitals, Egypt*

Abstract

Aims: *Our aims were to investigate the factors associated with increased insulin resistance in non-diabetic chronic hepatitis C patients.*

Method: *HCV-infected patients without DM (n= 28) which was further subdivided into non-cirrhotics and cirrhotics were compared with age- and sex-matched patients with chronic hepatitis C with type 2 DM (n = 22), also, it was subdivided according to the presence or absence of cirrhosis, and healthy controls (n =6). Serum insulin level, serum ferritin and blood glycated haemoglobin levels were calculated using ECLIA (electro-chemiluminescence immunassay), ELISA and Quantitative Colorimetric method respectively. Homeostasis model assessment insulin resistance index (HOMA-IR) and B cell function (HOMA-B) were calculated.*

Results: *There was significant difference regarding age between CHC (chronic hepatitis C) cirrhotic diabetic group and control and non-diabetic non-cirrhotic group (P=0.001). Age is correlated with IR (p=0.006), HOMA-IR (p=0.004) and HOMA-B (p=0.041). BMI (Body mass index) is correlated with IR (p=0.02), HOMA-IR (p=0.046) and HOMA-B (p=0.02). Albumin is correlated with IR (P<0.001), HOMA-IR (0.001) and HOMA-B (P<0.001). SGOT is correlated with IR (p=0.006), HOMA-IR (p=0.018) and HOMA-B (p=0.005). SGPT is correlated with IR (p=0.003), HOMA-IR (p=0.007) and HOMA-B (p=0.011). Platelet count is negatively correlated with IR (P<0.001), HOMA-IR (P<0.001) and HOMA-B (P<0.001).*

Conclusions: findings indicate that older age, obesity and high serum ferritin level help identify those HCV patients who have potential risk factors for development of DM and increased level of Insulin resistance and control of these factors like obesity or serum ferritin level may help to improve insulin sensitivity in these patients.

EFFECT OF METHYLENE BLUE ON INTRA-ABDOMINAL ADHESION FORMATION IN RATS

**Tarek I. Mahdy MD*, Gamal A. Mohamed MD
and Adel A. El-Hawary MD**

Departments of Surgery and Anatomy, Faculty of Medicine,
Mansoura University, Egypt.*

Abstract

Background : Adhesion formation represents an important clinical challenge in gastro-intestinal surgery. In the late era, methylene blue (MB) has been claimed to play a helping role in combating such a problem. In the present study, we investigated the effects of MB administered intraperitoneally on the surgically-induced adhesions in rats and tried to clarify whether its impact is concentration-dependent.

Material & Methods : Seventy adult male Wistar rats were used. They were allocated into seven groups, ten rats each: one control, two sham - operated and four experimental ones. Peritoneal adhesions were evoked by scraping the cecal serosa in the four experimental groups which were given different concentrations of MB, intraperitoneally. The animals of the control group were similarly dealt but were given saline. The rats of the sham-operated groups were given either MB or saline but without any serosal damage.

Results: After the elapse of two weeks, the resulting adhesions, inflammation and fibrosis were evaluated. In the rats treated with MB 1%, adhesions, inflammatory process and fibrosis scores were similar to those in the sham-operated rats and were significantly lower than those in all other groups.

Conclusion : It could be concluded that MB, 1%, had the best anti-adhesion potential.

Key words : Methylene blue, adhesions, abdominal surgery.

**EFFECT OF ROUX-EN Y GASTRIC BYPASS
ON BONE METABOLISM IN PATIENTS
WITH MORBID OBESITY:
“MANSOURA EXPERIENCES”**

**Tarek Mahdy MD, Samir Atia MD, Mokhtar Farid MD
and Atef Adulatif MD**

Department of Surgery, Faculty of Medicine, Mansoura University, Egypt

Abstract

Background : Roux-en-Y gastric bypass (RYGBP) has been found to be the most efficient way to lose weight and maintain the weight loss in morbid obesity. However, with the formation of a new stomach and the modification of intestinal anatomy, there are significant changes on bone metabolism. The objectives of this study were to evaluate effects of weight loss on bone metabolism after Roux-en Y gastric bypass in patients with morbid obesity.

Methods: Our study included 70 patients with morbid obesity, RYGBP was done for all patients. Daily postoperative oral supplementation with 1000 mg of calcium and 800 IU of vitamin D was done for each patient. Body weight, BMI, also Total body fat, Total lean tissue mass, Bone Mineral content (BMC), Bone Mineral density (BMD), Total bone area (TBA) (using DEXA), also, serum calcium, parathyroid hormone (PTH), 25-OH vitamin D, 24 hours urinary calcium and bone specific Alkaline phosphatase (BSAP) were assessed preoperatively and one year after surgery.

Results: In our study: females comprised 70% of cases. The mean age was 35 ± 8.8 years. One year after RYGB: Body weight (BW) decreased significantly from 132.8 ± 26.5 to 90.3 ± 17.3 kg ($P=0.001$). Body Mass Index (BMI) decreased significantly from 48 ± 7.3 to 32.6 ± 4.1 kg/m² ($P=0.001$). BMC decreased significantly from 2968.6 ± 71.4 to 2700.8 ± 45.4 gm ($p = 0.001$) BMD decreased significantly from 1.026 ± 0.03 to 1.22 ± 0.015 gm/cm² ($P=0.001$). TBA decreased significantly from 2356.2 ± 35.4 to 2216.3 ± 43.5 cm² ($P=0.001$). Serum calcium, 24 hours urinary calcium and BSAP were non significantly decreased while 25 OH-vitamin D and PTH were non significantly increased after surgery.

Conclusion: *From this study, it is shown that Roux-en-Y gastric bypass operation gives very good results as regards reduction of body weight in morbidly obese patients. Postoperative supplementation with calcium and vitamin D partially correct osteoporosis. So, These patients need periodic follow up for Bone Mineral Density (BMD), PTH, calcium, serum vitamin D and markers of bone resorption and formation specially postmenopausal female.*

**NECESSITY OF REPEATED PHYSICAL
MANEUVER, MASTOID VIBRATION AND
POSTURE RESTRICTION IN TREATING
BENIGN POSITIONAL PAROXYSMAL
VERTIGO (BPPV)**

**Yaser Khalil MD*, Hossam Sanyelbhaa Talaat MD
and Abdelmagied Hasn Kabel MD**

ENT dept., Menoufiya University,*

Audiology Unit, ENT dept., Menoufiya University. Egypt

Abstract

Since Epley introduced his canalith repositioning maneuver (CRM) There has been a debate about the necessity of the use of multiple CRM per session, the application of bone vibrator during CRM and the value of post maneuver posture restriction. in order to study these points 320 patients with BPPV were treated using different modifications in the CRM, according to the different forms of treatment they were classified into 4 subgroups. Subgroup A: They had single CRM. Subgroup B: The CRM was repeated 3 times in the same session Subgroup C: CRM was done using bone oscillator vibrator. Subgroup D: they received post CRM posture restriction instructions. Results: only Subgroup B had higher cure rate compared to the other subgroups. Conclusions: Repeating the CRM in the same session would result in higher cure rate compare to single CRM, There is no clinical evidence supporting the use of bone vibrator during CRM or posture restriction instruction after CRM

A CYTOGENETIC STUDY ON LEUKEMIC EGYPTIAN CHILDREN

Hanan I. Elbastawisy MD*, Suzan M. Farouk MD
and Lubna Y. Ibrahim MD**

Department of Human Genetics, Research Institute of Ophthalmology , Cairo, Egypt.
Cytogenetic Unit, Clinical Pathology Department, Benha Teaching Hospital, Benha, Egypt*

Abstract

This study included forty newly diagnosed children with acute lymphoblastic leukemia (ALL). On admission blood samples were taken from each patient for cytogenetic analysis by G-banding and it was successful in 37/40 patients (Gr. A)

Normal karyotype was present in 20 cases (54.1%) out of 37. On the other hand numerical and structural aberrations were seen in 13 cases (35.1%) and 3 cases (8.1%) respectively; while both aberrations were detected in only one case (2.7%). The study of the Giemsa banded chromosomes of the hyperdiploid cases showed that chromosome 21 was mostly added, followed by chromosomes (6,10& X), chromosomes(4&14), number (15,17,& 18), (5&8), chromosome 16, and finally chromosomes (9&20) in that descending frequency.

Hyperdiploid ALL have good prognosis on remission therapy as indicated by their chromosomal analysis.

Hypodiploid karyotype was present in four cases of (Gr. A) one male and 3 females who showed poor prognosis and short duration of survival. Tetraploidy was encountered in only two male cases .One case died during his treatment period and other one showed bad prognosis as indicated by his blood analysis after treatment .

Translocation t(4;11) (q21;q23) was found in one female and one male patients (5.4%). The female died 3 weeks after diagnosis , while the male patient showed poor prognosis after one month of conventional chemotherapy. Another translocation t(1;19)(q23;p13) was found in 2 male patients (5.4%), they were alive after one month of treatment and they

showed good prognosis during the remission induction stage.

These findings imply that the accurate identification of chromosomal abnormalities in ALL patients is essential for diagnosis and may be of great value in predicting the prognosis of such cases. After 4 weeks of chemotherapeutic treatment, second blood samples from 32 cases (Gr. B) were cytogenetically normal. The remaining eight cases showed: four of them died 2 weeks after diagnosis [one teraploidy male; two hypoploid females; and one translocation (4;11) female]; one case discontinued [hypodiploid male]; and three cases failed to remission induction [one hyperdiploid female, one tetraploid male ,and one translocation (4;11) male].

THE IMPACT OF SPLENECTOMY ON THE PATIENT'S SUSCEPTABILITY TO INFECTION

**Sabry A. Abdou MD*, Mohamed A. Ali MD,
Hosam A. Biomy MD*, Ebrahim H. Attar MD*
and Omer A. Shafik MD****

Department of Hepatology, Gastroenterology and Infectious Diseases,
and Department of Microbiology**, Benha Faculty of Medicine,
Benha University, Egypt*

Abstract

Splenectomy, is a procedure that has significantly decreased in frequency as the understanding of its complications increase. Susceptibility to infection is the best-defined and most widely understood complication of splenectomy. The aim was to study the impact of splenectomy on the patient's susceptibility to infections, and its effect on morbidity and mortality statistics of patients admitted to fever hospitals. The study included 506 patients admitted to fever hospital and they divided according to history of splenectomy into group I of 432 patients with no history of splenectomy and group II of 74 patients with history of splenectomy. The cause and duration of splenectomy, hospital stay, the type and duration of antibiotic prescribed in hospital, the diagnosis and the outcome at discharge were the main history items. Result: Chronic liver disease (CLD) was the main cause of splenectomy followed by trauma and Thalassemia 67%, 20 % and 12% respectively. No significant difference in blood culture between the 2 group but capsulated organism were more in group II. Respiratory tract infection was the main cause of admission in both groups with a high incidence of respiratory, urinary tract infection, meningitis and pyrexia of unknown origin in group II. Quinolones, Penicillin and Cephalosporins were the commonly used groups of antibiotics with statistical difference in group 2 than group 1. Prolonged hospital stay in group II with high statistical difference

Sabry A. Abdou, et al...

than group I (14.07±8.68 versus 4.57±3.29) (P<0.001). The improved outcome were significantly higher in group 1 than group 2 and the not improved outcome (frequent admission, escape from hospital & university hospital referral) were higher in group 2 than group 1 and it correlate with duration of splenectomy.

**EVALUATION OF EXPRESSION OF
B-CELL LYMPHOMA-2 OF PERIPHERAL
BLOOD T LYMPHOCYTES AND SOLUBLE Fas
IN CHILDREN WITH ALLERGIC RHINITIS AND
ALLERGIC RHINITIS COMBINED WITH ASTHMA**

**Moh Najeeb Bassal MD, Magdy A. Salama MD*
and Nahla A. Melak MD****

Departments of Pediatric, Benha University;

ENT, Microbiology**, Minofiya University, Egypt*

Abstract

The function of apoptosis (programmed cell death; PCD) is to eliminate unnecessary or dangerous cells. The balance between production and death is important in the control of cell numbers within physiological ranges. The dysregulation of apoptosis and the expression of apoptosis-related molecules of allergen-reactive T lymphocytes have been suggested to play a key role in the development and maintenance of the inflammatory reactions in allergic diseases. The present study was undertaken to investigate the expression of apoptosis-related molecules Fas and B-cell lymphoma (Bcl)-2 of peripheral blood T lymphocytes in allergic rhinitis children and in allergic rhinitis children combined with asthma. The plasma concentration of serum Fas was measured using the enzyme-linked immunosorbent assay (ELISA). The expression of the Bcl-2 molecule in T lymphocytes was assessed by flow cytometry. We examined two groups of patients with allergy. The first group consisted of 23 children with allergic rhinitis only. The second group consists of 22 children with allergic rhinitis combined with asthma. The study was done during the season of allergy from March 2007 to September 2007. The control group comprised 20 apparently healthy, age and sex matched subjects. The results showed that the serum level of Fas was significantly elevated in allergic rhinitis patients combined with asthma when compared to patients suffering from allergic rhinitis only and to control subjects ($P= 0.007$). The levels of Bcl-2 were significantly lowered in both groups of our study

compared to control group ($P < 0.001$). In conclusion, the lower serum levels of soluble Fas in patients with allergic rhinitis in contrast to its elevation in allergic rhinitis patients combined with bronchial asthma suggesting a different pathogenesis for allergic rhinitis and bronchial asthma at the apoptosis-linked step. While the lower levels of Bcl-2 in both groups revealed that, there was need for further investigations on the dysregulation of activation-induced cell death of T lymphocytes .

Key Words: Allergic rhinitis , allergic asthma;apoptosis; sFas ; B-cell lymphoma-2.