

ISSN 1110-208X

BENHA MEDICAL JOURNAL

**Published by
Benha Faculty of Medicine**

**Volume 24 Number 3
Sept. 2007**

BENHA MEDICAL JOURNAL VOLUME 24 NUMBER 3 Sept. 2007

Benha M. J.

Vol. 24 No 3 Sept 2007

BENHA MEDICAL JOURNAL

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

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MATERNAL WORK AND INFANT HEALTH IN AL-HASSA, SAUDI ARABIA

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Abstract

This comparative study aimed to examine the effects of maternal work on infant health in Al-Hassa, Saudi Arabia. Many aspects of infant health were compared between two groups of working and non-working mothers. Data were collected from family files kept at primary health care centers as well as by direct interview with 128 working and 512 non-working mothers with children completed their first year of life. Results showed that working mothers spent significantly less time in infant care than non-working mothers. However, infants of working mothers were more likely to be of heavier weight, more mid-arm circumference and more likely to show over growth than infant of non-working mothers.

None of the working mothers exclusively breastfed their babies during the first four months of age. These mothers were more likely to give bottle feeding, start weaning and introduce solid foods earlier.

Infants of working mothers are more likely to suffer of diarrhea and acute respiratory infections with more visits to health centers because of illness. Also they are more likely to be hospitalized than infants of non-working mothers.

On the other hand, vaccination coverage did not differ between the two groups of infants.

In conclusion maternal work adversely affects some aspects infants' health, especially breastfeeding and morbidities. This can be mitigated by prolonged paid maternal leave or providing flexible working conditions so as not to interfere with breastfeeding.

ECTOPIC HORMONES SECRETION IN CASES OF COPD AND CANCER LUNG IS IT AN ENDEX FOR MALIGNANT POTENTIAL?

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Abstract

This work was undertaken to study the level of peptide hormones (ACTH, aldosterone and parathormone) in patients with lung cancer and different stages of COPD since lung cancers are the most common tumour associated with ectopic production of peptide hormones. Peptide production may be better correlated with the state of tumour differentiation than with the tumour mass, but changes in peptide concentration can signal changes in tumour metabolism or malignant potential. Results revealed an increase in the level of parathormone and ACTH while the level of aldosterone was decreased in about 10% of patients of lung cancer. The changes in hormone level were marked in smoker than non smoker which may be due to tobacco metabolites that alter oncogens and tumour suppression genes. The increase in hormones level occur also in cases of COPD and this increase was directly proportional with the stage of COPD and degree of malignancy. SO these cases of COPD with a high level of hormones considered potential for malignant transformation. Also there was an increase in calcium level in most of patients as a consequence of increase in parathormone. So All signs and symptoms of hormonal disturbance or electrolyte imbalance in cases of COPD should be taken with caution as an alarming sign for malignancy.

**A STUDY OF POSSIBLE PRO-OXIDANT
AND APOPTOTIC EFFECTS OF
HYPERHOMOCYSTEINEMIA ON RAT KIDNEY
AND THE INFLUENCE OF FOLIC
ACID SUPPLEMENTATION**

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Abstract

Although kidney dysfunction is an important risk factor causing hyperhomocysteinemia (HHcy), recent evidence documents direct role of HHcy in glomerular and interstitial damage. However, the mechanism mediating these pathogenic renal effects of HHcy is poorly understood. In the present study, we hypothesized that if HHcy induced DNA damage and apoptosis that was dependent on oxidative stress, folic acid supplementation would have a major preventive effect.

The study was carried out on (20) albino rats classified into 2 groups each including ten animals. Folate-free group (FF) that were fed folate-deficient diet and folate-supplemented group (FS) that were supplemented with folic acid (8 mg / Kg diet) . The feeding of animals continued for 4 weeks after which, blood samples were collected for estimation of folate, homocysteine (Hcy), urea and creatinine. Then, the animals were scarified and kidneys were removed. Kidney homogenates were used for measurement of renal oxidative stress markers including renal malondialdehyde (MDA) and reduced glutathione (GSH); in addition to renal caspase-3 activity as an apoptotic marker.

The results showed that HHcy was confirmed in FF group, with higher MDA and lower GSH levels in renal tissues as compared with FS group. Also, renal Caspase 3 activity was significantly elevated in FF group compared with FS group. Significant correlations were detected between plas-

ma Hcy, plasma folic acid, renal oxidative stress markers and renal caspase 3 activity.

It was concluded that dietary folate deprivation either directly or secondary to elevated plasma Hcy concentrations increased susceptibility of renal tissue to lipid peroxidation associated with enhanced apoptotic activity. Thus, Folate supplementation is warranted as it could have a protective effect on kidney either directly or via ameliorating HHcy.

EFFECT OF METROLOGICAL FACTORS ON THE BEHAVIORAL AND PSYCHOLOGICAL SYMPTOMS OF DEMENTIA

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Abstract

Aim: This study was designed to investigate if high climate temperature have a worsening effect on Behavioral and psychological symptoms of dementia (BPSD) in demented patients and interact with the efficacy of a therapeutical program.

Methods: During a week in July 2007 in Eastern region of Saudi Arabia, when atmospheric temperature was unusually high, five out of six demented patients discharged from King Fahd Hospital in Hofuf, for Dementia reported an increase of behavioral disturbance severity.

Results: the three groups did not differ with respect to socio-demographic, clinical and therapeutical characteristics. On admission, frequency and severity of BPSD were similar among groups; whereas on discharge the case-group had an increase in NPI-scores (NPI during the first week (median): 13 in the case-group vs 21 in the I control-group vs 20.5 in the II one; during last week: 24.5 vs 9.5 vs 15 respectively).

Conclusion: It could be concluded that high climate temperature may have a negative impact on behavior in demented patients.

Key words: Dementia , high climate temperature, behavioral disturbance .

ROLE OF APPARENT DIFFUSION COEFFICIENT (ADC) AND MULTIVOXEL CHEMICAL SHIFT PROTON SPECTROSCOPY IN GRADING OF BRAIN TUMORS

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Abstract

Background And Purpose : Grading of brain tumors carries great importance in its evaluation and management. The aim of this work was to evaluate the role of apparent diffusion coefficient (ADC) and multivoxel chemical shift proton spectroscopy in grading of various brain lesions.

Subjects and Methods: This study was conducted on 35 patients with brain tumors (11 high grade and 7 low-grade glioma, 7 metastases, 6 meningiomas, and 4 tuberculomas). They presented with various combinations of neurologic manifestations {headache (24 patients), convulsions (11), focal neurologic deficits (27) and altered sensorium (6)}. They were prospectively evaluated with contrast material-enhanced MR imaging, multi-voxel proton MR spectroscopy (TE = 270 ms), and diffusion-weighted imaging ($b = 0, 500, \text{ and } 1000 \text{ s/mm}^2$) before surgery.

Results: MR spectroscopy could differentiate benign from malignant tumors but was not useful in grading malignant tumors. In the differentiation of malignant from benign tumors, N-acetylaspartate (NAA)/choline (Cho) and Cho/ creatine (Cr), ratios ($P < 0.001$) were statistically more significant than NAA/Cr. Lipid and lactate peaks were detected in 8 cases of high grade glioma and 6 cases of metastases but was not detected in any case of low grade glioma. ADCs were effective for grading malignant tumors ($P < 0.001$) but not for distinguishing different tumor types with the same grade. High-grade malignant tumors ($0.85 \pm 8 \times 10^{-3} \text{ mm}^2/\text{s}$) had significantly lower ADC values than did low-grade malignant ($1.15 \pm$

$9 \times 10^{-3} \text{ mm}^2/\text{s}$) and benign ($1.08 \pm 12 \times 10^{-3} \text{ mm}^2/\text{s}$) tumors. Peritumoral ADCs were insignificant in differentiation between high and low-grade glioma as well as between edema and non enhanced peritumoral infiltration. **Conclusion :** Combination of calculated ADC values from tumoral core and specific relative metabolite ratios acquired by MR spectroscopy added more information to MR imaging in the differentiation and grading of brain tumors.

**TREATMENT OF SUBGLOTTIC STENOSIS
WITH CO2 LASER EXCISION AND TOPICAL
APPLICATION OF MITOMYCIN C**

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Abstract

Twenty patients were gathered from El Menoufiya university hospital with subglottic stenosis caused by laryngoscleroma. The patients were divided into two groups group (A) & (B) .Patients were treated by CO2 laser excision of subglottic stenosis and topical application of mitomycin C high concentration 10 mg/ml group (A) & low concentration 0.4 mg/ml group (B). seven patients in group (A) and six patients in group (B) get improved after single surgical procedure. One patient in each group get improved after two surgical procedures.

Two patients in group (A) & three patients in group (B) undergone three surgical procedures with no improvement.

ROLE OF RESPIRATORY VIRUSES IN THE ETIOPATHOGENESIS OF ACUTE OTITIS MEDIA. HOW COULD BE AVOIDED?

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Abstract

Acute otitis media is one of the most common infection among children and although the treatment of it is directed towerds the elimination of the bactria from the middle ear space, viruses may also play an important etiologic role in this disease process (Mein, et al., 1979). So, the aim of this study was to evaluate the prevalence of various respiratory viruses in middle ear effusion (MEE) and nasopharyngeal specimen in children with recurrent acute otitis media (AOM) who had failed to improve after antimicrobial therapy and to determine the incidence of respiratory syncytial virus (RSV) as one of the most common respiratory viruses in AOM. Middle ear effusion (MEE)samples collected at the time of tympanostomy tube placement from 54 children with recurrent AOM were subjected to reverse transecriptase polymerase chain reaction (RT-PCR) to detect the presence of RSV genomic sequences. Also MEE and nasopharyngeal specimens were subjected to viral and bacterial cultures to detect viral antigens. The viral cause of infections was also assessed by serologic studies of serum samples obtained during the acute illness and convalescence. Viral infection was detected in 43 out of 54 children (79.6%), RSV was isolated from 57.1% of patients by viral culture and antigen detection and from 81.5% by RT-PCR. So, we can conclude that viral infection particularly RSV either alone or concurrent with bacteria is present with large percentage of children with recurrent AOM than previously suspected and PCR has proved to be more sensitive and specific than viral cultures and immunoassays in the detection of viruses in specimen. This would be helpful in guiding the use of preventive measures such as RSV vaccine.

FEASIBILITY AND OUTCOME OF MINIMALLY-INVASIVE HEMITHYROIDECTOMY : A COMPARATIVE STUDY VERSUS CONVENTIONAL PROCEDURE

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Abstract

Objectives: *This study aimed to evaluate the outcome of video-assisted gasless thyroid surgery (MIVAT) as regards feasibility, intraoperative and postoperative complications, postoperative pain, cosmetic results and hospital stay compared versus conventional thyroidectomy (CT) for cases with simple nodular thyroid swelling.*

Patients & Methods: *Patients had thyroid gland lobe with cranio-caudal length of ≤ 7 cm and thyroid nodule of ≤ 3.5 cm in its greatest diameter as judged by preoperative ultrasonographic examination of the neck were eligible for MIVAT using modified Miccoli-procedure and patients out of these criteria underwent conventional thyroidectomy (CT group). Operating time, the incidence of complications; e.g. intraoperative bleeding, postoperative bleeding, wound infection, and recurrent nerve palsy were reported. Subjective wound pain was evaluated using a 10-point visual analog scale (VAS) 4-hourly and the number of requests of postoperative analgesia and the hospital stay were registered. Patients' satisfaction with their scars was rated on a 10-point scale; 7-10: excellent or very satisfied, 4-6: good or moderately satisfied and 0-3 fair or barely satisfied.*

Results: *The study included 30 females with simple thyroid nodule; 14 patients fulfilled criteria for MIVAT. Mean operative time in MIVAT group (81.6 ± 7 ; range: 70-90 min) was significantly ($p < 0.05$) longer than in CT group, (61.9 ± 5.5 ; range: 50-75 min). However, mean VAS scores were significantly lower with a significant reduction of number of requests of rescue analgesia in MIVAT group compared to CT group. Also,*

satisfaction score was significantly higher in MIVAT group at both 3 and 6 months after surgery compared to scores determined in CT group with a significant increase of number of patients with higher satisfaction grade in MIVAT group compared to CT group both at 3-months and 6-months. Mean postoperative hospital stay in MIVAT group was 49.7 ± 6.4 hours while was 69 ± 19.5 hours in CT group that was significantly longer than duration of hospital stay after MIVAT.

Conclusion: *It could be concluded that minimally invasive video-assisted thyroidectomy was found to be a safe operation, with advantages over traditional procedures represented by better cosmetic outcomes and postoperative course.*

HOT VERSUS COLD TONSILLECTOMY

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Abstract

Tonsillectomy is one of the most commonly performed otolaryngology procedures. Several techniques for this procedure have been described including blunt dissection, electrocautery, laser, electro surgical scissors, coblation and ultrasonic dissection. Therefore this study was done to show the comparison between Coblation Tonsillectomy using (ENTEC EVAC 70: ARTHROC. RE) and Traditional Dissection technique in a prospective, blinded fashion. This study was done on 30 children, between 5 and 12 years of age with recurrent acute tonsillitis. Each participant had one tonsil removed by coblation and the other by traditional technique. We receded. by side. the surgical rime, blood loss, operative difficulty, pain in postoperative days (1, 2, 3, 5, 7, 10, 14) and the side made each patient preferred. Coblation tonsillectomy was found signiflcancly less painful than dissection tonsillectomy on day 1 ($P<0.001$), day 2 ($P=0.003$) and day 3 ($0-0.98$). For all subsequent postoperative days, there was no significant difference in pain levels between the two techniques. The coblation side was preferred by 26 of 30 patiems.

INCHING TECHNIQUE AND COMPARATIVE TESTS IN THE DIAGNOSIS OF MILD CARPAL TUNNEL SYNDROME

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Abstract

Introduction: Carpal tunnel syndrome (CTS) is the most common entrapment neuropathy. Its diagnosis depends on its typical clinical signs and symptoms and confirmed by electrophysiologic studies. Routine motor and sensory conduction studies failed to diagnose CTS in about 25% of cases (mild cases with distal motor latencies less than 4.2 ms).

The aim of the work: was to study the sensitivity and reliability of inching sensory technique of median nerve around wrist as well as comparative nerve conduction tests in diagnosis of mild CTS. and hence early application of suitable lines of treatments.

Subjects and methods: This study comprised fifty apparently healthy subjects as a control group and patients group included one hundred and fifteen patients with mild CTS in 150 affected hands. Patients were thoroughly selected from 379 patients with 512 affected hands diagnosed clinically as having typical CTS and referred from Outpatient Clinics in Mansoura University Hospitals. Cases with mild CTS were selected according to conventional motor and sensory nerve conduction studies (NCS) and were having distal motor latencies less than 4.2 ms. All the studied groups were subjected to; sensitive NCV tests: median-second lumbrical versus ulnar-inrosseous test, median versus ulnar digit 4 sensory latencies test (ringdiff), median versus ulnar palm-to-wrist mixed nerve latencies test (palmdiff), median versus radial digit one antidromic sensory latencies (thumbdiff), combined sensory index (CSI) and inching sensory technique for median nerve at wrist. different surgical approaches were planned to relieve nerve compression after failure of other therapeutic modalities depending on accurate diagnosis using inching sensory test and other comparative tests.

Results: Mild CTS was diagnosed in 29.3% of all cases of CTS. In

comparative tests, median versus ulnar palm-to-wrist mixed nerve latencies (palmdiff) was the most sensitive (93.33%) with specificity of 99.3%. CSI was the most sensitive test in our study (sensitivity=99.33% and specificity =100%) followed by inching sensory test as its sensitivity was 94% and specificity 100%.

Conclusion: *Comparative studies and CSI are easily applied, non painful, sensitive and specific tests can be applied firstly in diagnosis of mild CTS and followed by inching sensory technique which is also, very sensitive and specific but it may be painful and time consuming. We can approach to diagnosis of mostly all cases of mild CTS by this regimen so early diagnosis with selection of suitable lines of treatment will improve the results of patient's outcome.*

**A COMPARATIVE STUDY BETWEEN
LIDOCAINE SPRAY (10%) AND LIDOCAINE
SPRAY PLUS INTRAVENOUS NALBUPHINE TO
FACILITATE LARYNGEAL MASK AIRWAY
INSERTION IN MINOR GYNECOLOGICAL
PROCEDURES**

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Abstract

Background: *This prospective, randomized , double blind study was designed to evaluate the effect of adding nalbuphine (mixed agonist antagonist opioid) to lidocaine spray (10%) on the hemodynamics as well as the laryngeal mask airway insertion conditions in patients scheduled for elective minor gynecological procedures .*

Methods: *Forty adult female patients, ASA physical status I-II subjected for elective minor gynecological procedures at Mansoura University Hospital were enrolled in this study. Patients were randomly assigned using sealed envelop method into two groups (n= 20 for each group). One group received lidocaine spray 10% in the oral cavity and oropharynx before LMA insertion while the other group received lidocaine spray in addition to IV nalbuphine 0.2 mg/kg. Anesthesia was induced in all patients with propofol injection in a sleep inducing dose [1-2 mg.kg⁻¹], titrated to loss of consciousness with oxygen mask. Anesthesia was maintained with 1% isoflurane, nitrous oxide (60%) and oxygen (40%). The following data were recorded during LMA insertion, six variables were noted on a 3-points scale, jaw relaxation (good-incomplete-poor), ease of insertion (easy-difficult-impossible), swallowing (nil-slight-gross), coughing/gagging (nil-slight-gross), limb movement (nil-slight-gross), laryngospasm (nil-slight-gross) and blood pressure (MPB) , heart rate (HR) and peripheral arterial oxygen saturation (basal and every one minute for 5 minutes).*

Patients were monitored with electrocardiogram, noninvasive arterial blood pressure, pulse oximetry and capnogram. All noted and recorded before induction(basal) and every minute for 5 minutes .

Results: *As regard LMA insertion characteristics, there was statistical significance observed between both group in coughing/gagging and laryngospasm ($p= 0.003$ and 0.018 respectively) favoring nalbuphine with lidocaine group. Comparison of hemodynamic parameters between groups has shown that nalbuphine plus lidocaine group had generally better control of blood pressure throughout and shortly after the insertion procedure. In addition, this group had significantly better control of heart rate in two time stations and remained better later in spite of lack of statistical significance.*

Conclusion: *Nalbuphine administration with lidocaine spray has the advantage of better control of hemodynamics and improved some laryngeal mask airway insertion criteria like significant decrease in coughing/gagging and laryngospasm. We can conclude that IV nalbuphine is a safe and cheap opioid that can be used for facilitation of LMA insertion .*

Key words: *Lidocaine spray, Nalbuphine, laryngeal mask airway, Gynecological procedures .*

**ACCUMULATION OF CADMIUM AND IRON IN
THE HYDROCELE FLUID OF INFERTILE MEN
WITH PRIMARY VARICOCELE; A POSSIBLE
ROLE IN MALE INFERTILITY**

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Abstract

Varicoceles are a common cause of male infertility, but despite data from human studies some points of the pathophysiology remains unclear. Seminal plasma cadmium concentrations were found to be increased in infertile men. In addition, increases in blood plasma cadmium concentrations in infertile men have been associated with teratozoospermia. Cadmium contributes to infertility by induction of apoptosis in testicular tissue. Methods: An ejaculate and blood sample were collected immediately before surgery from 45 infertile men with varicocele classified into 3 groups (group 1 included 12 oligospermic, group 2 included 14 asthenospermic and group 3 included 19 oligoasthenospermic men) followed by aspiration of hydrocele fluid from the tunica vaginalis at the time of subinguinal varicocelectomy. Blood samples were collected from 10 healthy fertile men as control group. In each specimen, cadmium and iron levels were determined by atomic absorption spectrophotometer and the effect of hydrocele fluid on the sperm velocity was determined by examining aliquots of sperms suspended in hydrocele fluid compared to those suspended in seminal plasma. Results: The cadmium level was found to be significantly higher in the hydrocele fluid than peripheral blood, while the increase in the iron level was found to be non significant in the 3 patients groups with bilateral varicocele. Hydrocele fluid added to the sperms, initially increased the motility for 10 to 15 minutes then the velocity

diminished gradually and eventually all the sperms became immotile in 30 minutes.

Conclusions: 1- The hydrocele fluid in patients with varicocele has a deleterious effect on the sperm vitality. 2- The increased cadmium and iron concentrations in the hydrocele fluid are probably driven from the increased transvascular fluid exchange which occurs with varicocele. 3- These metal ions may diffuse from the hydrocele fluid to the sperms during their maturation in the epididymis and induce their acrosomal insufficiency effect.

GHRELIN, LEPTIN, INSULIN AND INSULIN RESISTANCE IN NEWLY DIAGNOSED TYPE 2 DIABETIC PATIENTS

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Abstract

Objectives: *To evaluate the hormonal changes ghrelin, leptin, insulin and insulin resistance in newly diagnosed type 2 diabetic patients and their relation to metabolic state.*

Methods: *The present study was carried out on twenty newly diagnosed type 2 diabetic patients and fifteen apparently healthy persons as a control. Fasting plasma insulin, leptin, and ghrelin were measured by ELISA. Homeostasis Model Assessment (HOMA) is an arithmetic way of deriving indices of pancreatic endocrine function (beta cell function, HOMA-B) and peripheral tissue insulin sensitivity (HOMA-S) were calculated from fasting plasma samples.*

Results: *In diabetic group BMI and waist circumference were significantly increase ($p < 0.0001$ & $p = 0.026$). Insulin and leptin were significantly increase ($p < 0.0001$) while, ghrelin was significantly decrease ($p < 0.0001$). HOMA-S, significantly decrease ($p = 0.0110$) while, HOMA-B non significantly increase. There was a negative correlation between plasma ghrelin and BMI ($p = 0.0149$), waist circumference ($p = 0.0002$), SBP and DBP ($p < 0.0001$) while leptin showed significantly positive correlated with BMI and waist circumference ($p < 0.0001$). There was a negative correlation between plasma ghrelin and FBS ($p = 0.0005$), PPBS ($p < 0.0001$), and HOMA-B ($p = 0.0336$) with positive correlation with HOMA-S ($p < 0.0001$), while leptin showed significant positive correlation with HOMA-B ($p = 0.0023$) and significant negative correlation with HOMA-S ($p < 0.0001$). There was a significant negative correlation between plasma ghrelin and serum triglyceride ($p < 0.001$) and LDL cholesterol ($p < 0.0001$) with a positive correlation with HDL cholesterol ($p < 0.0001$) while leptin showed significant positive correlation with serum triglyceride ($p = 0.0020$)*

and LDL cholesterol ($p < 0.0001$) and significant negative correlation with HDL cholesterol ($p < 0.0001$). There was a negative correlation between plasma ghrelin and insulin and leptin ($p < 0.0001$) with a positive correlation between insulin and leptin ($p < 0.0001$).

Conclusion: It is suggested that there is interaction between insulin and leptin hormones. Insulin has stimulatory trophic effect on leptin secretion, but the effect of leptin on insulin is controversial as leptin lowers insulin secretion and in the same time modulates insulin action and participates in the development of insulin resistance. It is speculated also that both insulin and leptin have inhibitory role on ghrelin level. Decreased plasma levels of ghrelin are significantly associated with abdominal adiposity, hyperinsulinemia and insulin resistance in type 2 diabetic patients. These hormonal changes are associated with clusters of metabolic abnormalities which are major CHD risk factors.

**INTRAOCULAR PRESSURE AND HEART RATE
CHANGES DURING TRACHEAL INTUBATION
VERSUS LARYNGEAL MASK AIRWAY INSERTION
IN INFANTS WITH CONGENITAL GLAUCOMA
UNDER SEVOFLURANE ANESTHESIA**

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Abstract

Background: tracheal intubation is a time-tested method to achieve the airway control in anesthesia practice and resuscitation, However it is associated with significant cardiovascular response and increase IOP.

The use of laryngeal mask airway (LMA) as an alternative to tracheal intubation has attracted the attention of several workers with regard to haemodynamics and IOP changes.

Aims: to evaluate the intraocular pressure and heart rate changes subsequent to insertion of laryngeal mask or tracheal tube in infants with congenital glaucoma under sevoflurane anesthesia.

Patient and Methods: The study was conducted on 20 infants with congenital glaucoma ASA I. Pre-operative assessment was done. Sevoflurane was used for induction and maintenance. According to the airway device used, patients were randomly classified into two groups: group 1 (n=10) tracheal tube (TT) was used, and group 2 (n=10) LMA was used. Heart rate and IOP were measured before induction (basal) and after induction of anesthesia and at 1, 3, 5 minutes after insertion of the airway device.

Results: A statistically significant reduction in IOP after induction and at 1, 3, 5 minutes occurred in both groups compared to basal values, the reduction was more in the group 2 (LMA) than group 1 (TT). Heart rate decreased significantly after induction in TT group 1 and at 3, 5 minutes in LMA group 2 compared to basal values.

Conclusion: Laryngeal mask airway can be an alternative to tracheal

Amgad A. Zaghloul

tube in elective glaucoma surgery in infants.

Sevoflurane prevents the rise in IOP and heart rate following the insertion of laryngeal mask airway and tracheal tube in these infants.

CHRONIC DISLOCATION OF THE RADIAL HEAD IN CHILDREN, OPEN REDUCTION & ANNULAR LIGAMENT RECONSTRUCTION

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Abstract

Background: There is a controversy as regard treatment of chronic dislocation of the radial head in children. Treatment varies from watchful waiting, open reduction with or without annular ligament reconstructions, open reduction with or without ulnar or radial osteotomy & excision of the radial head. Purpose To evaluate our results of open reduction & annular ligament reconstruction, using triceps aponeurosis. Patients and Methods: Nine elbows (4 traumatic, 2 congenital, 2 following brachial plexus injuries, one following multiple osteochondromas) in nine children with chronic radial head dislocation were treated with open reduction and annular ligament reconstruction using triceps apponeurosis. There were six girls and three boys. Their mean age at the time of surgery was 6 years 8 months (range: 3 years 9 months to 9 years 1 month). Radial osteotomies were needed in 3 cases. Clinical and radiological evaluations were done according to Kim's elbow scoring system. Results: Initial post-operative radiographs showed anatomic reduction of radial head in all cases however during follow up two redislocations were encountered. Mean follow up period was 3 years 4 months (range: 1 year 2 months to 4 years 5 months). Cases were graded excellent in 5 patients, good in one, fair in one and poor in two patients. Conclusion: Open reduction and annular ligament reconstruction ensure stable radial head in cases of chronic dislocation of the radial head however congenital dislocation needs careful approach.

EVALUATION OF POWER DOPPLER IMAGING IN DETECTION OF PROSTATE CANCER

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Abstract

Purpose: *To evaluate power Doppler imaging techniques as new ultrasound technologies in prostate cancer detection and as a complementary part of TRUS assessment of the prostate.*

Material and Methods: *101 patients, suspected to have prostate cancer, were chosen from those attending the out-patient clinics of Urology Department in Benha Faculty of Medicine. Their ages ranged from 53 to 87 years. All patients were complaining of LUTS, they were subjected to thorough clinical examination, DRE, PSA measurement TRUS and PDI. Moreover, TRUS-guided biopsies from the prostates were done for all patients to confirm the diagnosis.*

Results: *Forty patients (39.6%) were proved to have prostate cancer by TRUS-guided biopsy. DRE detected 27 prostate cancer patients (67.5%), while it was negative in 13 prostate cancer patients (32.5%). PSA was high in 37 prostate cancer patients (92.5%), while it was normal in 3 prostate cancer patients (7.5%).*

Positive TRUS findings were detected in 35 prostate cancer patients (87.5%), while 5 cancer patients (12.5%) were negative by TRUS. PDI was positive in 24 prostate cancer patients (60.0%), while it was negative in 16 (40.0%).

In addition, the results of PDI were studied in view of those of DRE, PSA and TRUS.

PDI detected 17 (63.0%) prostate cancer patients out of 27 DRE-positive cancer patients. Seven prostate cancers (53.8%) DRE-negative prostate cancer patients were detected by PDI. PDI detected 23 (62.2%)

prostate cancer patients out of 37 cancer patients with elevated PSA levels and one (33.3%) prostate cancer patient with normal PSA. Finally PDI was positive in 23 (65.7%) prostate cancer patients out of 35 patients who were TRUS-positive, and one (20.0%) of TRUS-normal cancer patients detected by PDI.

Conclusion: *Although having a limited accuracy, the diagnostic triad of DRE, PSA and TRUS remains the clue and first step in the diagnosis of prostate cancer. In this respect, PDI can draw attention to the presence of hypervascular suspected lesions; however, a confirmatory TRUS-guided biopsy will still be necessary as a gold standard test in the diagnosis of prostate cancer.*

Key words: *PDI, TRUS, prostate cancer.*

IS VARICOCELECTOMY IN NON-OBSTRUCTIVE AZOOSPERMIC PATIENTS HAS AN EFFECTIVE ROLE?

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Abstract

Objective: Evaluation of the role of varicocelectomy in azoospermic patients.

Patients and Methods: From Oct. 1998 to April 2007 188 non-obstructive azoospermic patients have undergone varicocelectomy; all patients were examined clinically and generally especially for the presence of varicocele, clinical or subclinical and classified in grades, testicular volume was estimated and routine investigations, including complete hormonal assay were done semen analysis for at least 3 times and U/S scrotum with Doppler for all cases. All patients were with history of primary infertility except 6 cases of secondary infertility, prevaricocelectomy and 3 to 6ms post-varicocelectomy semen parameters were compared and analyzed.

Results: Postoperative semen analysis revealed overall sperm detection in 36 patients 18.8% of cases and 19 patients 10.6% of cases have shown spermatid and many spermatogenic cells in subsequent semen analysis. It was shown that 14, 8 patients (40%, 31%) respectively of huge or large preoperative varicocele were improved in detection of sperms in the ejaculate, 9 patients 13% of grade II or moderate varicocele have been improved but grade I and subclinical varicocele showed little improvement. Regarding the relation with testicular volume there was significant improvement in 8, 10 patients (49%, 45.6%), in cases presented with accepted or within normal testicular volume.

Conclusions: Our study revealed that varicocelectomy in azoospermic

patient can play an effective role in the management of male infertility and can result in pregnancy in some patients with accepted testicular volume or in the presence of preoperative large or evident varicocele, also there was considerable improvements in spermatogenesis in the other patients which could improve the assisted reproductive techniques results.

COMPLICATIONS AND FUNCTIONAL RESULTS OF STANDARD ORTHOTOPIC DIVERSION : STUDER`S POUCH

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Abstract

Objective: *The purpose of this study was to evaluate early and late complications, reservoir functional outcome, continence status and upper tract functional throughout the follow up after Studer ileal neobladder*

Patients and methods: *Thirty two patients were included in this study and followed at a regular interval of three months for one year postoperatively. Early and late complications, urinary continence and upper tract configuration and function were evaluated. Patients were assessed by interviews and history taking, voiding diary, continence questionnaire, abdominopelvic ultrasound, IVU and urodynamic study.*

Results: *No postoperative mortality. Early and late postoperative complications rates were 28.1% and 12.5% respectively. Out of 32 patients, febrile urinary tract infection occurred in 4 patients, prolonged urinary leakage in 2 patients, unilateral hydronephrosis in 3 patients, urethroileal stricture in 3 patients, and metabolic acidosis in one patient. The mean functional pouch capacity increased over time from 298±65ml at 3month postoperatively to 423±93 at 9 month of follow up and became fixed thereafter. The mean post voiding residual urine estimated by ultrasound was 46±18 at 6 month of follow up. All patients underwent urodynamic evaluation at 6 and 12 month postoperative. The maximal pouch capacity was 395±75 ml with the pouch pressure at maximal capacity was 30±6 cm water at 6 month postoperative with similar value at 12 month and thereafter. Continence status improved over time, meanwhile the night time continence rate was lower than daytime, unsatisfactory*

night continence who need more than one pad per night was recorded in 12.5% then reduced to 3.1% at 6 month and 12 month postoperative respectively .IVU at 6 month show no upper tract ectasia or dilatation in all patients through out next follow up period

Conclusion: *Studer ileal neobladder is easy and satisfactory surgical technique of orthotropic urinary diversion. It provides an acceptable rate of postoperative complications with good functional reservoir outcome and continence status while preserving upper tract function.*

THE EFFECT OF ORAL TESTOSTERONE UNDECANOATE REPLACEMENT THERAPY USED IN TREATING HYPOGONADAL MEN ON THE DEVELOPMENT OF PROSTATE CANCER

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Abstract

Objective: To evaluate the effect of oral testosterone undecanoate replacement therapy on the development of prostatic cancer in hypogonadal men of the fifth, sixth, and seventh decades.

Patients & Methods: From September 2002 to September 2007, 172 hypogonadal men (44 of the fifth, 60 of the sixth, and 68 of the seventh decade) were treated with oral testosterone undecanoate at the outpatient departments of Urology and Dermatology, Andrology, and Sexually Transmitted Diseases of Alnoor Specialist Hospital, The Holy Makkah, Kingdom of Saudi Arabia. Before starting treatment and every 6 months during the treatment period, all patients underwent routine laboratory investigations in addition to total serum testosterone level. Serum prolactin level was measured only before treatment. They were also evaluated by digital rectal examination (DRE), total prostatic specific antigen (PSA), and transrectal ultrasound (TRUS) of the prostate to exclude prostatic cancer and BPH (with lower urinary tract symptoms, LUTS). Prostatic biopsy was done in selected cases. Comparative statistical analysis of pretreatment and posttreatment results was done.

Results: The mean change of PSA values was insignificant and no patient developed clinical prostatic cancer. However, one patient with evident PSA level change was diagnosed as prostatic intraductal neoplasia (PIN) on prostatic biopsy. In addition, significant prostatic volume mean change of $34.9\% \pm 5\%$ was reported. LUTS were encountered in 4 patients.

Conclusions: *From the current study, it could be concluded that oral testosterone undecanoate replacement therapy does not increase the risk of prostate cancer in selected patients, but may increase prostatic volume or increase the incidence of benign prostatic hyperplasia manifestations.*

Keywords: *Prostatic specific antigen, prostate cancer.*

PSA SCREENING IN LONG-TERM POST-OPEN PROSTATECTOMY PATIENTS FOR ESTIMATION OF THE INCIDENCE OF PROSTATIC ADENOCARCINOMA

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Abstract

Objectives: *To evaluate the effect of long-term open prostatectomy on PSA and the incidence of prostatic adenocarcinoma in those patients in comparison with benign prostatic hyperplasia patients.*

Patients & Methods: *From March 2002 to April 2007, 1883 patients were enrolled in this study in Urology Department, Benha Faculty of Medicine and Al Noor Specialist Hospital KSA, the age of the patients was started from 58 to 93 yrs with mean of 73. 1st group was 870 patients with long-term open prostatectomy of around 10 years duration and the second group was 1013 patients of BPH symptoms of the same age group receiving alpha-blocker, anti-inflammatory, or diagnosed for the first time, subdivision of the 2 groups into subdivision A from 60 to 70 and subdivision B above 70. Total PSA was estimated for all patients, clinical evaluation especially digital rectal examination "DRE" and transrectal U/S. In suspected cases prostatic biopsy was done. The data of the two groups were compared and analyzed.*

Results: *The results of the present study have revealed that there was significant decrease in the mean PSA values of the 870 patients post-prostatectomy group 1.89 ng/ml, $P < 0.05$ in comparison with the benign prostatic hyperplasia group mean value 3.1 ng/ml but there was no significant decrease in the overall incidence of prostatic adenocarcinoma, which was found to be 0.15% and 0.11% in the post-prostatectomy group and 0.19% in the benign prostatic hyperplasia group.*

Conclusion: *It was shown that there was significant decrease in the mean PSA values of the post-prostatectomy group in comparison to the mean values in the BPH group but there is no significant decrease in the expected incidence of prostatic adenocarcinoma in the same age group.*

RIGHT VENTRICULAR FUNCTION IN SYSTEMIC SCLEROSIS, RELATION TO ICAM-1

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Abstract

Background: Cardiopulmonary involvement in patients with systemic sclerosis (SSc) carries a poor prognosis mainly due to pulmonary hypertension and right-heart failure. The early detection of right ventricle (RV) dysfunction may be important when assessing the prognosis and optimizing treatment. The study aimed to investigate earlier detection of right ventricular dysfunction in systemic sclerosis patients and investigate a possible role of intercellular adhesion molecule-1 (ICAM¹) to a such condition. Methods: The study included 23 SSc patients (mean age 45.4±10.9 years and disease duration 8.6±7.5 years) and 21 healthy age and sex-matched control subjects. Doppler echocardiography was used to evaluate cardiac function, high resolution CT to evaluate lung fibrosis. ICAM-1 levels was measured for patients as well as healthy control subjects. Results: An abnormal right ventricular function was established by SSc patients group by higher right ventricle myocardial performance index (RV MPI), lower fractional area shortening (FAS), decreased tricuspid valve E/A ratio, prolonged tricuspid valve deceleration time (TV DT), prolonged right ventricle isovolumic relaxation time (RV IVRT), reduced tricuspid valve filling time corrected to heart rate (0.303±0.031 vs 0.285±0.004, P=0.01 & 39.01±4.2 vs 43.3±5.01, P=0.004 & 0.93±0.17, 1.03±0.19, P=0.02 & 191.1±24.9ms vs 172.4±28 ms, P=0.002, 60±23 ms vs 46±15 ms, P=0.02 & 50±7ms vs 54±4.1 ms, P=0.02) respectively. These findings were associated with higher ICAM-1 levels in patients than control

(468.8 ± 77 vs 289 ± 89 , $P < 0.001$) as well as higher pulmonary artery systolic pressure (PASP) in SSc patients than controls (38.56 ± 9.7 mmHg vs 31.2 ± 8.5 mmHg, $P = 0.02$). The subgroup of SSc patients ($n = 11$) with stronger evidence of right ventricular systolic and diastolic dysfunction had significantly higher ICAM levels and higher PASP (0.324 ± 0.03 ng/ml vs 0.286 ± 0.0024 ng/ml, $P < 0.001$ & 47 ± 7.36 mmHg vs 30.8 ± 2.24 mmHg, $P < 0.001$) respectively. Moreover, ICAM-1 correlated significantly with RV MPI, RV FAS, TV E/A ratio, RV IVRT as well as PASP ($P = 0.004$ & 0.032 & 0.017 & 0.001 & 0.025) respectively. Also, higher ICAM-levels were associated with increased relative risk of valvular lesion, pulmonary hypertension, lung fibrosis, more advanced LV diastolic dysfunction, joint, muscle and gastrointestinal affection in the studied SSc patients. Conclusion: Altered right ventricular function is exhibited by a considerable percentage of SSc patients. Such alteration is detectable in patients without any clear cut evidence of cardiac disease. Such alteration could be adequately estimated by echo Doppler. Myocardial performance index could be a useful tool. sICAM-1 levels may reflect the extent of right ventricular involvement in SSc patients and point to a pathogenic role of adhesion molecules in systemic manifestation of the disease.

SINGLE-PORTAL ENDOSCOPIC VERSUS OPEN CARPAL TUNNEL RELEASE

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Abstract

Open release of the transverse carpal ligament (TCL) has been the gold standard surgical treatment for patients with carpal tunnel syndrome for the past several decades. However, significant concerns are the transient post-operative "pillar pain," scar tenderness and the length of recovery time. There has been widespread misunderstanding and confusion regarding endoscopic carpal tunnel release (ECTR) owing to different techniques with different complications and efficacy being viewed as one technique. This prospective randomized study was carried out to compare the single-portal ECTR and open carpal tunnel release (OCTR). Between May 2006 to May 2007 Thirty-one patients with 60 wrists clinically diagnosed and electrophysiologically confirmed idiopathic CTS, and non-responded to non-operative treatment were assigned to this study. Single-portal ECTR was performed in 16 patients with 30 wrist (14 bilateral CTS patients and 2 cases with right side CTS) and OCTR was performed in 30 wrists (15 bilateral CTS patients). All cases were available for follow-up at 3 weeks, 3 and 6 months post-operatively. Outcome measures were evaluated such as CTS symptoms improvement, time needed to resume activities of daily living (ADL) and return to work and complications. Early onset of CTS symptoms relief was prevalent in single-portal ECTR group (66.5% within 3 days). During the first three months post-operatively, patients sustained to the single-portal ECTR procedure were better symptomatically and functionally. Local wound problems in terms of painful scar or palm was reported by 10 wrists (33%) in the OCTR group, whereas non in the single-portal ECTR group, occasional pain with ADL reported in 3

wrists (10%) of the OCTR group. The average time to return to work was appreciably less in the single-portal ECTR (12 days) compared to 25 days in the OCTR group. No significant difference was observed between the two groups as regard to symptoms improvement, electrophysiological studies and complications at the end of six months. In conclusion, Single-portal ECTR is a safe and effective treatment of CTS, was associated with less post-operative pain, more quickly good clinical outcomes and patient satisfaction than OCTR. Hence the small size of the benefit and similarity in other outcomes make its cost effectiveness uncertain.

INTERPOSITION ARTHROPLASTY AND RECONSTRUCTION OF THE EXTENSOR APPARATUS IN SEVER BOUTONNIÈRE DEFORMITY

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Abstract

Injuries of the hand finger joints can often lead to severe functional disability and rapid development of stiff joints. Although; Splinting and arthrodesis have been recommended because of the random results achieved by other reconstructive procedures, arthrodesis for the young active patients should be reserved for limited causes and other arthroplasty techniques restoring joint mobility should be considered. A technique for interposition arthroplasty of the proximal inter-plalangeal (PIP) joint in sever type boutonniere deformity is described in this current study. It involves minimal resection of intra-articular adhesions and the use of autogenous fascia lata, and reconstruction of the extensor apparatus. Between May 2006 and May 2007 at the Orthopaedic Surgery Department of Mansoura University Hospital, 6 autogenous fascia lata interposition arthroplasties conducted on PIP joints of six patients of chronic post-traumatic sever type (stage III) boutonniere deformity according to Nalebuff & Millender classification (Terrono et al., 1990). The resulted total active range of motion of the operated PIP joints ranged from 45 to 75 degrees. The restored range of motion constitutes from 42.9% to 71.4% of the normal range of motion of the PIP joint (Hume et al., 1990). The operated PIP joints were stable and the restored motion was pain-free. All our patients were satisfied with both the functional and cosmetic outcomes. The method is simple, safe, and easily reproducible. In selected cases it can offer restoration of pain-free active motion.

**CARDIOVASCULAR EFFECTS OF
PROPOFOL- FENTANYL VERSUS
KETAMINE- MIDAZOLAM IN PEDIATRIC
PATIENTS WITH CONGENITAL
HEART DISEASE**

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Abstract

Purpose : *The cardiovascular effects of different anesthetic regiments in children with normal hearts have been studied but data in children with cardiac diseases are limited . This study was designed to compare the effects of propofol - fentanyl (P/F) and ketamin - midazolam (K/M) on systemic and pulmonary hemodynamics-.myocardial contractility and recovery time in patients with congenital heart diseases.*

Methods: *30 patients aged from 1 month to 12 years with congenital heart diseases undergoing cardiac catheterization. They were randomly divided into 2 groups the 1st received P/F and 2nd received K/M .The cardiovascular., echocardiographic data and recovery time were recorded.*

Results: *Propofol-fentanyl caused significant decrease in the heart rate(HR) and mean blood pressure(MAP) also it diminished cardiac index (CI) significantly. While the ketamine- midazolam significantly prolonged the recovery time (R.T).*

Conclusion: *The use of K-M for children with congenital heart diseases provided hemodynamic stability .But fentanyl-propofol provided more rapid recovery.*

SHOCK WAVE LITHOTRIPSY TREATMENT OF RADIOLUCENT RENAL STONES : A SIMPLE ALTERNATIVE

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Abstract

Objective: To evaluate a simple procedure for dealing with radiolucent renal pelvic stones larger than 2cm using combined ureteric catheter (for stone localization) and double-J stent (for prophylaxis of stein-strasse) prior to shock wave lithotripsy (SWL).

Methods: Thirty-five patients (21 males and 4 females) with single radiolucent stone in the renal pelvis were entered in this study in the period from Feb. 2003 to March 2007. The average stone size was 25mm (range from 20 to 30 mm). Patients underwent initial ureteric catheter insertion followed by double-J stent and referred to SWL unit. The stone localized by contrast medium injected in the catheter throughout the lithotripsy session then the catheter was removed leaving the stent. Patients were followed up 10 days post lithotripsy by ultrasonography and I.V.P or non contrast spiral C.T scanning to detect the residual stones.

Results: The success rate was 91% (32 patients) 10 days after lithotripsy. Three patients (9%) showed significant residual fragments. Those patients required oral chemolysis for stone dissolution. There was no adverse reactions of contrast medium and there was no significant complications intra or post-operatively.

Conclusion: Shock wave lithotripsy for radiolucent renal pelvic stones with help of contrast medium injected through a ureteric catheter is a minimally invasive technique with a high success rate. It can be considered as a simple alternative to traditional treatment modalities for radiolucent stones.

Key words: Shock wave lithotripsy, radiolucent stones, contrast medium.

**END TIDAL CONCENTRATION OF
SEVOFLURANE AND ISOFLURANE FOR
ADEQUATE DEPTH OF ANAESTHESIA IN
CAESAREAN SECTION GUIDED BY BIS**

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Abstract

Inadequate hypnosis in the absence of opioid analgesia may account for the increased incidence of awareness in caesarean section before delivery of the neonate. We investigated the concentration of sevoflurane and isoflurane required to maintain bispectral index (BIS) < 60 until delivery occurred.

We enrolled 40 ASA physical status I, II parturients in an up-down sequential allocation study [group I (sevoflurane group) 20 patients and group II (isoflurane group) 20 patients]. The median effective end-tidal concentration (EC50) of sevoflurane and isoflurane was defined as that which maintain BIS < 60 between skin incision and delivery in 50% of patients. The EC50 for sevoflurane and isoflurane was 1.2% (1.06-1.31) and 0.8% (0.64-0.92) respectively. There was no postoperative awareness in all patients in both groups. There were no differences regard haemodynamic parameters (HR-MAP) between both study groups. We conclude that sevoflurane concentration of at least 1.2-1.3% and isoflurane concentration of at least 0.8-0.9% should be administered during caesarean section to minimize the risk of awareness and recall.

PREDECTION OF EXTRACORPOREAL SHOCK WAVE LITHOTREPSY OUTCOME BASED ON NONCONTRAST HELICAL COMPUTED TOMOGRAPHY QUANTITATIVE PREDICTORS.

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Abstract

Objective: To assess the pretreatment non contrast helical computed tomography (NCCT) measurements, in the form of, stones Hounsfield unite (HU) and skin to stone distance (SSD) to define the effect of each on extracorporeal shock wave lithotripsy (ESWL) results.

Patients and Methods: Twenty eight patients with single renal pelvic (10-20mm) or proximal ureteric stone (5-10mm) had pre-extracorporeal shock wave lithotripsy (ESWL) evaluation by non-contrast computed tomography (NCCT). Stone attenuation value measured in Hounsfield Unit (HU) as well as skin to stone distance(SSD) was measured on selected NCCT image of interest for each patient, these measures were evaluated as predictors of ESWL outcome. Patients with renal pelvic stones received 3000 shocks per ESWL session while those with proximal ureteric stones received 4000 shocks per session, the maximum ESWL session number allowed were 3 .Patients were evaluated by plain X- ray of the kidney, ureter and bladder (KUB) after each ESWL session. Six weeks after ESWL treatment patients with stones greater than 3mm considered residual stone patients (10 out of 28 patients), while those with complete stone clearance or fragment 3mm or less considered stone- free patients (18 out of 28 patients).The stone attenuation value (HU) and skin to stone distance (SSD) in the stone-free and residual- stone patients group were compared.

Results: The overall mean HU value for stone-free and residual-stone patients was significantly different 669 ± 14.9 HU versus 962 ± 11.5 HU

respectively. The body mass index (BMI) as indicator of overweight or obesity status, go hand in hand with SSD and correlated well with each other, the mean SSD for stone free and residual stone patients were 9.3 ± 2.7 and 11.4 ± 3.01 cm respectively, which were statistically significantly different. Analysis of the data revealed that stones of greater than 900 HU were less likely to fragment and ESWL failure is probable (5 patients out of 8, 62.5%). Furthermore, patients with SSD 10 cm or less had 91.6% stone free rate (11 out of 12 patients), while those with SSD greater than 10 cm had only 43.7% stone free rate (7 patients out of 16).

Conclusion: We concluded that, stone HU and the patients obesity status as expressed by the SSD are powerful predictors of NCCT for ESWL results, so we can save; unnecessary exposure to shock waves, time, effort and costs.

W-NEOBLADDER AND MODIFIED T-POUCH : PREFERABLE FORMS OF ORTHOTOPIC DIVERSION WITH 117 PATIENTS

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Abstract

Objective: *the purpose of this study is to asses the W-neobladder and T-pouch in the surgical technique, functional results and complications as the preferable orthotopic diversion in our department.*

Patients and Methods: *the study was conducted in our department with 117 patients with invasive bladder cancer after performing radical cystectomy. ninety five patients performed W-neobladder and 22 patients performed modified T-pouch in cases of hugely dilated or short ureters. Patients were followed up at regular intervals of 3 months for the first post operative year and every 6 months thereafter. Early and late complications, urinary continence and upper tract function were evaluated.*

Results: *ninety five patients (81.2%) performed W-neobladder, 86 males and 9 females and 22 patients (18.8%) performed T-pouch, 19 males and 3 females, due to hugely dilated and short ureters, age ranged from 42-73ys with median 59ys. no intraoperative mortality, 3 post operative mortality (2.6%). Early complications were in 37 patients (31.6%), 30 patients were diversion unrelated (25.6%) and 7 patients (6%) were diversion related. Late complications were in 20 patients (17%) including 9 patients (7.7%) diversion unrelated and 11 patient (9.3%) diversion related. 71 patients with W-neobladder (85.5%) and 14 patients with modified T-pouch (82.3%) had good day time continence. sixty one patients with W neobladder (73.4%) and 13 patients with modified T-pouch (76.4%) had good night time continence, 66 patients with W-neobladder (79.5%) and 14 patients with T-pouch (82.3%) void to completion. upper tract evaluation revealed stable or improved upper tract in 79 patients with W (95%) and 15 patients with T (88.2%).*

Conclusion: *upper tract preservation and voiding control are the corner stone for the ideal urinary reservoir which had been achieved successfully in our study with W and T-pouch. Both techniques have proved their efficiency, durability and versetality. Surgeon preference of the type of diversion is a hallmark for the type of diversion selected to the patient.*

SIGNIFICANCE OF DIFFERENT DIAGNOSTIC TOOLS FOR DIAGNOSIS OF MALIGNANT THYROID GLAND TUMOURS

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Abstract

Objectives: *The objective of this study was to determine the diagnostic accuracy of clinical examination ,computed tomography (CT), neck ultrasound (US), thyroid scintigraphy (SC), and fine needle aspiration cytology (FNAC) as a different diagnostic tools for diagnosis of cancer thyroid gland in correlation to the final histopathological examination.*

Patients and Methods: *From a series of 60 patients with different thyroid diseases, this study was conducted on 18 patients (15 females and 3 males with age range from 41 to 63 years) diagnosed clinically and proved histopathologically as cancer thyroid gland. All patients were subjected to full history taking, complete clinical examination, computed tomography (CT), neck ultrasound (US), thyroid scintigraphy (SC) and fine needle aspiration cytology (FNAC). All the patients with malignant cytological evaluation underwent total thyroidectomy, with selective lateral neck lymph node dissection, for patients with palpable cervical lymphadenopathy, postoperatively histopathological examination of the operative specimens were done. The accuracy, of clinical examination, computed tomography, neck ultrasound, thyroid scintigraphy, and fine needle aspiration cytology, in diagnosis of cancer thyroid was estimated in correlation to the final histopathological examination.*

Results: *The results showed that, the diagnostic accuracy of fine needle aspiration cytology (FNAC) in diagnosis of cancer thyroid gland was 88.9%, while the diagnostic accuracy of computed tomography (CT) was 76% where the diagnostic accuracy of neck ultrasound and clinical examination were 72%, and finally the diagnostic accuracy of scintigraphy was 55.6%.*

Conclusion: *Fine needle aspiration cytology is a safe, cost-effective, sensitive and still the most accurate diagnostic tool in diagnosis of malignant thyroid lesions in clinically suspected cases (cases with regional lymphadenopathy, hoarseness of voice, history of rapid tumour growth, hard and fixed tumour and cases with tumour size >4cm), while CT and sonography, had a nearly similar results in detection of the thyroid malignancy. It is suggested that sonography, is a useful adjunctive test after detection of thyroid lesions on CT.*

THE POTENTIAL BENEFITS OF SECOND TURBT IN PATIENTS WITH NEWLY DIAGNOSED SUPERFICIAL BLADDER TUMORS AND ITS IMPACT ON TREATMENT STRATEGY

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Abstract

Objective : *Evaluation of the potential benefits and necessity of the second Transurethral Resection of Bladder Tumor (TURBT) in patients with newly diagnosed superficial bladder tumors and its impact on subsequent treatment strategy.*

Patients and Methods : *A second TURBT was performed 2 - 3 weeks after the initial resection on 31 patients with newly diagnosed superficial bladder tumors in the period of October 2005 to October 2007. The first TURBT was performed where all visible tumors, tumor bed and tumor margins were resected and sampled separately. The second TURBT was performed by the same manner 2 - 3 weeks after the initial resection on 31 patients who were proved histopathologically to have superficial bladder tumors. Tumors were staged according to TNM system of UICC, and graded according to the new WHO/ISUP classification.*

Results : *Second TURBT was performed on 31 patients (27 males and 4 females) with newly diagnosed bladder cancer 2 - 3 weeks from the initial resection. Minor to moderate complications occurred after resection were treated conservatively. Twenty cases (64.5 %) had no residual tumors, 11 cases (35.5 %) had residual tumors (6 visible and 5 microscopic tumors). Of the 11 patients one had p Ta, 7 had pT1 and 3 had pT2 disease. Of the residual tumor detected, 3 cases (27 %) were low grade tumor and 8 cases (73 %) were high grade tumor. Three cases (10 %) underwent radical cystectomy due to the change of pT1 to pT2 after second TURBT.*

Conclusion : *Early detection of residual tumor 2- 3 weeks after initial TURBT can differentiate it from the recurrence which may be detected at first check systoscopy after 3 months which affect the prognosis of the disease and saving the patient from receiving unnecessary treatment. Also second TURBT is valuable in changing treatment strategy in considerable percentage of patients due to upstaging.*

Key words : *Second TURBT for superficial bladder tumors*

PLASMA LEVEL OF TISSUE FACTOR PATHWAY INHIBITOR IN CHILDREN WITH CHRONIC LIVER DISEASE

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Abstract

Tissue factor pathway inhibitor "TFPI" is one of physiological coagulation inhibitors, which when decreased may facilitate coagulation especially in advanced liver disease. The aim of this study is to measure the Plasma level of "TFPI" in patients with chronic liver disease "CLD" of various etiologies and correlate this with other parameters routinely used to assess these patients. We measured Plasma level of "TFPI" in 50 patients with "CLD" using a specific ELIZA test along with 10 matched healthy controls. The children were classified into 6 groups, group (I) "control group: n=10," group (II) those with chronic HBV and HCV viral infection ; n=17, group (III) "a metabolic one ; n=9" , group (IV) "those with autoimmune hepatitis ; n=10", group (V) "patients with biliary disorders ; n = 9" and group (VI) "hepatovascular group ; n = 5". All children were also subjected to clinical exam., Liver function tests , PT and conc, PTT, Plasma level of protein C and factor V , serum fibrinogen , HBSAg, anti HBC total and IgM , anti HCV, HCV-RNA for anti HCV +ve patients, ultrasound and liver biopsy was done for 36 patients. The result showed that TFPI was decreased in different types of CLD irrespective to the etiology compared to control group "group (I) : 83.2 ± 18.50 ng/mL, group (II) 30.9 ± 20.2 ng/mL, group (III): 57.5 ± 21.5 ng/mL, group (IV) : 58 ± 24.5 ng/mL, group (V) : 35.9 ± 16.9 ng/mL and group (VI) : 71.2 ± 47.1 ng/mL. The results gave a statistically sig. value in all groups except group (VI).

There was no sig. difference between cirrhotics and non cirrhotics regarding TFPI Plasma level, (non cirrhotics : 41.2 ± 23.1 ng/mL ; n=18 , cirrhotics : 54.5 ± 33.2 ng/mL; n =32"

The study also showed a sig. decrease of TFPI with disease progression " child A cirrhotics : 73.8 ± 36.46 ng/mL ; n = 7, child B : 52.7 ± 14.6 ng/mL; n = 4 , child C : 36.2 ± 29.33 ng/mL; n = 7".

There was no sig, correlation between TFPI plasma level and AST , ALT . ALP, GGT, protein C and factor V but a sig. one was found with serum fibrinogen and PTT.

**NON OPERATIVE TREATMENT VERSUS
POSTERIOR FIXATION FOR THORACOLUMBAR
BURST FRACTURES WITHOUT
NEUROLOGIC DEFICIT**

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Abstract

A Prospective study was conducted to compare the results of non operative treatment versus short- segment posterior fixation using pedicle screws for thoracolumbar burst fractures without neurologic deficit . This study involved 40 patients. Neurologically intact patients with single - level closed burst fracture involve T 11 - L2 were included in the study . Patients in the non operative group were allowed activity to the point of pain tolerance beginning on the day of injury using hyperextension brace . Patients in the operative group underwent two levels (one above and one below) fixation using transpedicular screws. The follow up period was 1 year. The surgical group had less pain up to 3 months and a better outcome up to 6 months, but the outcome was similar afterward. No neurologic deficit developed in any patient .

In the non operative group , the kyphosis angle worsened by 4° and retropulsion decreased from 35% to 15%.

Short - segment posterior fixation provides partial kyphosis correction and earlier pain relief but functional outcome at 1 year is similar in both groups .

MEDICOLEGAL ASPECTS OF MATERNAL DEATHS OF OBSTETRICAL ORIGIN

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Abstract

Understanding the extent of maternal deaths especially those due to medicolegal causes as homicide, suicide, accidents, illegal abortion and medical malpractice in women of childbearing age, may lead to improved identification of preventable problems that contribute to maternal morbidity and mortality. Maternal death due to unnatural (medicolegal) causes i.e. deaths due to violence, sudden and unexpected deaths, deaths due to medical malpractice and, in particular, those due to trauma- are increasing and forming the main causes of the maternal deaths. Maternal deaths due to natural causes i.e. direct or indirect obstetrical causes are decreasing nowadays, as a result of rapid progress in the methods of diagnosis and treatment of the various medical conditions affecting women during pregnancy, delivery and puerperium. Medical malpractice represented an important cause of the maternal deaths, especially with the development of the medical care standards. Because of this, if an accident happens the obstetrician more than any other doctor perhaps can find himself in the courts. To avoid this he has to know very well the causes of maternal mortality in order to avoid them as far as possible.

**BILLIARY ATRESIA CASES AMONG ATTENDANTS
OF MENOEFIYA NATIONAL LIVER INSTITUTE
(A RETROSPECTIVE STUDY)**

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Abstract

This study included 126 cases of neonatal cholestasis syndrome (NCS) from the attendants of Pediatric Department of the National Liver Institute, Menoufiya University from 1994 up to 2004 . They were divided into two groups: First group(1stGr.) included 58 biliary atresia (BA) cases (46%) and the second group (2ndGr.) included 68 (54%) were due to other causes of NCS . The etiology of NCS due to causes other than BA were as follows : 28 cases (22.22%) neonatal hepatitis, 11 cases (8.73%) septicemia, 8 cases (6.35%) paucity of intrahepatic bile ducts, 5 cases (3.97%) inspissated bile syndrome, 4 cases (3.17%) choledochal cyst , 2 cases (1.59%) Byler's disease, 2 cases (1.59%) galactosemia , 2 cases α 1 anti-trypsin deficiency (1.59%), 1 case (0.79%) Alagille syndrome , and 5 cases (3.97%) due to unknown causes. Onset of jaundice whether early or late does not differentiate cholestatic cases due to BA from other causes of NCS. Clay coloured (acholic) stools were more frequently detected in BA cases (77.6%) than 2ndGr. (27.9%) ($p < 0.05$). Triangular cord sign (Tc sign) and absence of and/or gall bladder abnormality were detected in significantly higher proportion of BA group more than the 2ndGr. ($p < 0.05$). By histopathological examination portal tract fibrosis , bile duct proliferation, bile plugs in portal ductules and preservation of hepatic lobular architecture were detected more frequently among BA cases than the other group, while interface hepatitis and giant cell detection were observed more frequently among 2ndGr. than BA cases ($p < 0.05$). The mean of alkaline

phosphatase and gamma glutamyl transpeptidase was found to be statistically higher among BA group than that of the 2ndGr. ($p < 0.05$). Kasai operation was done for only 20 cases of BA cases (34.5%) and the mean of age of patients at time of operation was 75 days ± 17.8 . Complications encountered in BA cases were recurrent cholangitis, ascites, itching, coagulopathy, hematemesis and end-stage liver failure in 48%, 50%, 41.7%, 39.6, 18.8% and 54.2% of cases respectively. In conclusion, the results of the present study indicate that clinical evaluation by an experienced pediatric hepatologist and liver biopsy together with careful ultrasonographic evaluation are considered as the most reliable methods for early differentiation of BA from other causes of neonatal cholestasis. Management of BA cases will be improved by public and professional education to encourage early referral of infants with neonatal cholestasis (>14 days) to specialised liver centers for early diagnosis to facilitate initial surgery before 8 weeks of age.

EVALUATION OF AN ACCOMMODATING INTRAOCULAR LENS

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Abstract

INTRODUCTION: Conventional intraocular lenses (IOLs) that focus light at a fixed distance provide excellent visual outcomes in most patients who have cataract extraction. However, most patients require reading glasses or bifocals for near vision, Steinert et al, (1999).

Replacing the natural lens with a multifocal intraocular lens that provides multiple focal distances for both near and distance vision offers an alternative to patients who need near vision correction after cataract surgery, Wolffsohn, et al. (2006). The optical quality of the retinal image is worse than the retinal image produced with a monofocal IOL. The loss of image quality can affect visual performance and has led to an interest in alternative modalities for correcting near vision in pseudophakic patients, Steinert et al, (1999).

By using the new accommodating IOLs, ophthalmic surgeons will be able to provide a full range of visual focus in each eye of a patient to maintain binocular function while also avoiding visual disturbances that are experienced with monovision and multifocal IOLs, Doane (2004) .

The Crystalens AT-45 (Eyeonics), is an accommodating, foldable, multi-piece plate shaped IOL. (Eyeonics Crystalens fact sheet).

AIM OF THE WORK: This research was designed to study the efficiency of the foldable accommodating IOL; Crystalens (AT-45) in the restoration of both distant and near visual acuity after phacoemulsification. Also, assessment of the IOL's possible displacement during accommodation and the accompanying modifications of the ciliary body and anterior chamber depth by using ultrasound biomicroscopy (UBM).

PATIENTS AND METHODS: This study comprised twenty five eyes of 25 patients (12 females and 13 males). Patients had no preexisting ocular conditions other than cataract. All patients were subjected to phacoemulsification and Crystalens AT-45 (Eyeonics Inc.) implantation. All patients were above 45 years old and expressed a preference for spectacle independence.

Postoperatively, measuring the monocular distant visual acuity (uncorrected and best corrected) and visual acuity for near (uncorrected, through a distance correction and best corrected with near add) were done. UBM was used to examine the anterior chamber depth and the shift of the IOL along the visual axis in response to ciliary muscle pharmacological stimulation

RESULTS: The mean age was 52.23 ± 5.3 years (Ranged from 45 to 65 years). All surgeries were uneventful with no complications or adverse events. The mean preoperative decimal uncorrected visual acuity (UCVA) was 0.08 ± 0.05 . The mean preoperative best corrected visual acuity (BCVA) was 0.1 ± 0.06 . After 6 months follow up, the mean postoperative UCVA was 0.52 ± 0.17 ; BCVA was 0.94 ± 0.18 . The mean uncorrected near visual acuity (UCNVA) was J5; distance corrected near visual acuity (DCNVA) was J5. The mean Add near correction was $+1.58 \pm 0.21$ D. The mean postoperative anterior chamber depth was $4 \text{ mm} \pm 0.55$ and after pharmacological stimulation with 2% Pilocarpine, the mean depth was 3.5 ± 0.35 mm. The amplitude of accommodation was calculated by both an objective and subjective methods. The mean postoperative amplitude of accommodation was 0.91 ± 0.27 D. Faint opacification was observed in 3 eyes at the first month postoperatively, and in 8 eyes at six months postoperatively.

CONCLUSIONS: Accommodating IOL provides patients with excellent visual acuities both for distance and near. It should be considered to allow cataract patients to be spectacle independent. We have the clinical impression that the degree of pseudophakic accommodation provided with Crystalens is useful for patients' daily life. The accommodation range depends on the displacement of optic which is controlled by the range of ciliary body effect (contraction and anterior rotation)

Key Words : Accommodating IOL, Crystalens, AT-45 IOL, pseudophakic accommodation, Anterior chamber depth, ultrasound biomicroscopy.

COMPARISON OF INTRAVITREAL INJECTION OF TRIAMCINOLONE ACETONIDE AND BEVACIZUMAB AS A PRIMARY TREATMENT OF DIFFUSE DIABETIC MACULAR EDEMA

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Abstract

INTRODUCTION: *Diabetic retinopathy is the leading cause of blindness in patients aged 20-74 years in the United States, Chew and Ferris (2001). Diabetic macular edema (DME) is a manifestation of diabetic retinopathy that produces loss of central vision, Klein, et al., (1984). Two different subtypes of DME are recognized. Focal macular edema, and diffuse macular edema, Ciardella, et al., (2004). Intravitreal injection has been proposed as a new technique in the treatment, Jonas, et al., (2003). Triamcinolone Acetonide (TA) is a synthetic glucocorticoid analog with marked anti-inflammatory action, used to take the advantage of its anti-edematous effect, Jonas and Söfker (2001). Anti-vascular endothelial growth factor (VEGF) therapy has probably been one of the most promising breakthroughs in medical retina treatment, Brwon, et al., (2006). Bevacizumab, a full length monoclonal antibody binding all isoforms of VEGF, Michels, et al., (2005) and Moshfeghi, et al., (2006) . Bevacizumab is rapidly becoming one of the leading treatments for neovascular diseases, Fung, et al., (2006) and Jorge, et al., (2006) .*

AIM OF THE WORK: *The aim of this study is to compare the short term effect of single intravitreal injection of Triamcinolone Acetonide (as a corticosteroid) and Bevacizumab (as an anti-VEGF) for treatment of diffuse diabetic macular edema.*

PATIENTS AND METHODS: *30 eyes of 30 diabetic patients were enrolled in this prospective study. All patients were type 2 diabetics on oral hypoglycemic drugs with 8 years or more duration since the diagnosis of their diabetes mellitus .*

All of them had diffuse macular edema with central macular thickness of more than 300 μm . Patients were divided into two groups. Group I assigned for intravitreal injection of 4mg (0.1ml) Triamcinolone Acetonide and Group II assigned for intravitreal injection of 1.25mg (0.05 ml) Bevacizumab.

All patients were examined before entry into the study then first day post injection then weekly for the first month then at the end of second and three months. In each visit patients were examined as routine ophthalmic examination with best corrected visual acuity and stereoscopic fundus examination. Optical coherence tomography was done before injection then after the first and third months.

RESULTS: In group I, the pre-injection (baseline) mean best corrected visual acuity was 6/60+ (0.12) and increased to be 6/18 (0.3) after one month and at the end of third month. While in group II, the pre-injection (baseline) mean best corrected visual acuity was 6/60⁻ (0.09) and increased to be 6/24 (0.25) after one month and 6/36 (0.17) at the end of third month. In group I, the pre-injection (baseline) mean central macular thickness was $523.2 \pm 87.1 \mu\text{m}$. and decreased to be $287.64 \pm 91.15 \mu\text{m}$ after one month and $256.14 \pm 93.57 \mu\text{m}$ at the end of third month. While in group II, the pre-injection (baseline) mean central macular thickness was $527.7 \pm 91.8 \mu\text{m}$ and decreased to be $377.6 \pm 103 \mu\text{m}$ after one month and $382.5 \pm 130.4 \mu\text{m}$ at the end of third month.

No complications were noticed in both groups including increased intraocular pressure, vitreous hemorrhage and infection.

CONCLUSION: One single intravitreal injection of Triamcinolone Acetonide may offer better effect than Bevacizumab in the short term management of diffuse diabetic macular edema especially with regard to changes in visual acuity and central macular thickness.

LEFT VENTRICULAR DIASTOLIC DYSFUNCTION IN PATIENTS WITH TYPE 1 DIABETES MELLITUS

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Abstract

Background and aim of the work: Many studies have established diabetes mellitus as a strong risk factor for cardiovascular morbidity and mortality. Cardiac dysfunction especially diastolic dysfunction in patients with type 1 diabetes mellitus represents one of the serious complications and if present, it may be very important as regard quality of life and prognosis. Echocardiographic evaluation of cardiac function can predict early stages and prognosis of diabetic cardiomyopathic changes.

The aim of our study: Is to assess by echocardiography and Doppler examination the left ventricular diastolic function in a group of patients with type 1 diabetes mellitus and to search for a relation between this cardiac function and 1: duration of diabetes 2: glycemic stat. 3: insulin dosage (unit /day).

Research design and method: This study has been conducted on 63 individuals (43 patients with type 1 diabetes mellitus were compared to 20 control volunteers age and sex matched).

Results: Patients with type 1 diabetes mellitus showed a statistically significant difference in the peak velocity of early left ventricular diastolic function (E velocity), and late left ventricular diastolic function (A velocity), E/A ratio, end diastolic volume (EDV) and end systolic volume (ESV), as regard other echocardiographic parameters including the deceleration time, Left ventricular internal dimension in diastole (LVIDd) there is no significant difference. There is a significant positive correlation between E velocity, EDV and duration of diabetes and between A/E ratio and insulin dosage/day, also between deceleration time and glycosylated hemoglobin (HbA1c).

Conclusion: *Patients with type 1 diabetes mellitus showed significantly higher peak velocity of early and late left ventricular function in diastole compared to healthy control. Early left ventricular diastolic dysfunction not related to the degree of glycemic control and the duration of disease but related to deceleration time. The total daily dose of insulin positively correlated with the occurrence of early stage of diastolic dysfunction.*

Recommendation: *Full cardiac assessment especially by echocardiography and recently by radionuclide ventriculography is strongly recommended in the follow up of patients with type 1 diabetes mellitus especially those with high daily dosage of insulin.*

MARKERS OF TYPE II COLLAGEN SYNTHESIS AND DEGRADATION AS A PREDICTOR OF RADIOGRAPHIC PROGRESSION IN KNEE OSTEOARTHRITIS

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Abstract

The aim of this study was to evaluate serum PIIANP and urinary CTX-II as a parameters of type II collagen synthesis and degradation, respectively, in patients with OA knees and to investigate whether the use of these two molecular markers could predict the progression of joint damage evaluated by radiography during a period of 3 years.

Sixty patients had symptomatic primary knee OA of Kellgren-Lawrence (K-L) grade I-III and met ACR criteria. These patients were evaluated prospectively for 3 years. Serum PIIANP and urinary CTX-II levels were measured by ELISA at baseline and at study end and their levels compared according to the changes in joint space width (JSW), K-L grade and WOMAC index, over 3 years. Also, we assessed the diagnostic value of those molecular markers and their performance for prediction of radiological progression. Serum and urinary levels also compared with 40 matched healthy subjects as a control group.

There were significant decrease in the baseline serum PIIANP ($P < 0.001$) and increase in the baseline urinary excretion of CTX-II ($P < 0.001$) in knee OA patients in comparison with the control, in bilateral than unilateral cases ($P < 0.05$), ($P < 0.05$) and also with increasing the K-L radiological severity of the disease ($P < 0.05$), ($P < 0.001$), respectively. There were significant decrease in the mean baseline serum PIIANP and highly significant increase in the mean baseline urinary excretion of CTX-II in progressors (JSW narrowing ≥ 0.5 mm) and in patients showed increase in K-L grading either of the signal or both knees ($P < 0.05$), ($P < 0.001$), respectively. There were significant decrease in the mean

study end serum PIIANP and highly significant increase in the mean study end urinary excretion of CTX-II in progressors (JSW narrowing ≥ 0.5 mm) and in patients showed increase in K-L grading either of signal or both knees ($P < 0.05$), ($P < 0.001$), respectively. There were insignificant correlation between serum PIIANP and urinary CTX-II either at the baseline or study end and also insignificant correlation between those molecular markers with disease duration, BMI and WOMAC index ($P > 0.05$). Urinary CTX-II showed a higher diagnostic sensitivity and specificity (75% - 92%) than serum PIIANP (60% - 90%), respectively. The diagnostic specificity was greatest when both tests were found in combination (96%). Also, combination of tests showed higher diagnostic sensitivity (92.3%) and specificity (55.3%) for predicting the radiological progression over 3 years than either one alone.

In conclusion: using specific molecular markers serum PIIANP and urinary CTX-II, we found that patients with knee OA are characterized by depressed type II collagen synthesis and increased type II collagen degradation. Combining these two molecular markers allows the identification of patients with a high risk of subsequent progression of joint damage.

SERUM LEVEL OF β - ENDORPHIN AND SOME LIPID PARAMETERS IN PATIENTS WITH PEPTIC ULCER

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Abstract

Endogenous opioid system like β -endorphin have a functional role in modulating pain perception. This work was conducted to study the serum level of β -endorphin and some lipid parameters in patients with peptic ulcer in relation to the site of ulcer, severity and duration of symptoms. The study included 48 patients with peptic ulcer and 15 healthy control. The serum level of β -endorphin were significantly higher in patients with peptic ulcer than the control (0.475 ± 0.058 Vs 6.18 ± 1.004 ng/ml) ($P < 0.001$) and the level were elevated in asymptomatic more than symptomatic patients (12.014 ± 1.517 Vs 1.652 ± 0.23 ng/ml) ($P < 0.001$), acute more than chronic (7.459 ± 1.4 Vs 3.621 ± 0.81) with no difference between gastric and duodenal ulcer (5.284 ± 1.11 Vs 7.076 ± 1.67). The lowest elevation were present in chronic symptomatic patients. Serum total, LDL-cholesterol and triglyceride levels were elevated in patients with chronic peptic ulcer more than acute ($P < 0.001$) with no differences between gastric and duodenal ulcer or between symptomatic and asymptomatic patients. Serum HDL-cholesterol levels were elevated in peptic ulcer patients who are acute more than chronic with no differences between gastric and duodenal ulcer or between symptomatic and asymptomatic patients.

STUDY OF NEUROMETABOLIC DISORDERS IN EGYPTIAN CHILDREN

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Abstract

Background: *Metabolic brain diseases usually present with a complex neurological picture so they are often overlooked. This prospective study was undertaken to focus on the clinical aspects, biochemical abnormalities and neuroimaging of the brain in children suffering from neurometabolic disorders.*

Patients and methods: *This study was carried out on 130 patients suspected clinically of having metabolic brain diseases and presented to the neuropediatric clinic, neonatal intensive care unit in Benha faculty of medicine and the neurometabolic specialized clinic in Abu El-Reesh hospital. The diagnosis of neurometabolic disorders was confirmed in 29 children (22%). They were 19 males and 10 females, their age ranged from 5 days to 10 yrs with mean age 3.61 ± 2.2 years. They presented with clinical manifestations suggestive of metabolic brain diseases. They were subjected to thorough history, clinical examination, investigations in the form of serum ammonia, serum lactate, blood glucose, blood gases assessment, ketone bodies in urine, CPK (creatine phosphokinase), urine organic acids, plasma aminogram, enzymatic assay, EMG (Electromyography), EEG (electroencephalography), muscle biopsy, CT and MRI of the brain.*

Results: *Patients were classified according to their clinical presentations, biochemical and radiological findings into 5 groups, Group I, Organic acidemia 10 cases (34.5%), including, Methyl malonic acidemia (4 cases), Biotinidase deficiency (3 cases), Glutaric Aciduria type 1 (2 cases) and Maple syrup urine disease (one case). Group II, Mitochondrial disorder*

ders 9 cases (31%) including, Leigh syndrome (4 cases), Pyruvate dehydrogenase deficiency (2 cases), mitochondrial encephalomyopathy (2 cases) and MELAS syndrome (mitochondrial encephalopathy, lactic acidosis and stroke) (one case). Group III, Urea cycle abnormalities 5 cases (17.2 %). Group IV Aminoacidopathy 3 cases (10.4 %) in the form of Phenylketonuria. Group V Fatty acid oxidation defect 2 cases (6.9%). The main neurological manifestations were global developmental delay (93.1%), seizures (89.7%), hypertonia (65.5%) and microcephaly (55.2%). Biochemical abnormalities were: Group I: had acidosis in 9 cases (90%) [ketoacidosis in (4 cases), lactic acidosis in (3 cases), acidosis without ketosis in (2 cases)] , ketosis only in one case (10%) and hyperammonemia in 7 cases (70%) of cases. Group II: had mainly lactic acidosis 5 cases (55.6%) and mild hyperammonemia (11.1%). Group III : had isolated hyperammonemia (100%). Group IV : had hyperphenylalaninemia in (100%) of cases with phenylketonuria. Group V : had lactic acidosis, mild hyperammonemia, hypoglycemia and absent ketosis in (100%) of cases. Neuroimaging showed abnormal findings in the form of basal ganglia abnormalities (41.4%), brain atrophy (27.5%), diffuse demyelination and focal demyelination (6.9%) each and normal findings in (17.3%).

Conclusion: Presence of unexplained neurological symptoms whose severity is out of proportion to the inciting illness should arouse suspicion of a metabolic disease. Screening tests like blood gas analysis, blood levels of lactate, glucose and ammonia, urine examination for ketones and neuroimaging provide valuable clues to the presence of an underlying metabolic disease.

**MODIFIED RIBBON GAUZE PACKING
TECHNIQUE VERSUS MEROCEL
NASAL PACKING IN REDUCING NASAL
ADHESIONS FOLLOWING FUNCTIONAL
ENDOSCOPIC SINUS SURGERY.
A RANDOMIZED CONTROLLED STUDY**

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Abstract

Objective: This study compares the efficacy of 2 common techniques of nasal packing [compressed sponge (Meroce) and Vaseline ribbon gauze] in preventing intranasal adhesions following functional endoscopic sinus surgery (FESS) in adult patients. **Study design:** Prospective, blinded, randomized controlled trial. **Setting:** Tertiary care referral hospital. **Patients:** Sixty seven adult patients aged between 19 - 70 years, who had undergone FESS for chronic sinusitis, were included in the study. All patients had diagnostic nasal assessment and preoperative coronal and axial CT scanning of nasal and paranasal sinuses. FESS was performed following Messerklinger technique. Additional surgical procedures were performed as indicated. After completion of surgery, one side of the nasal cavity was packed with compressed sponge (Meroce) and the other side with Vaseline ribbon gauze filling the nasal cavity from above downward. **Main outcome measure:** Three months post-operatively, all patients were assessed endoscopically for the development of postoperative intranasal adhesions. Anatomical distribution of post-FESS adhesions was noted. **Results:** One hundred and thirty four sides were operated upon. On 3 months post-operative follow up, nasal adhesions developed in 18 (27%) and 6 (9%) of sides packed with Meroce and ribbon gauze respectively ($p = 0.007$). The described modified technique of ribbon gauze nasal packing has reduced the incidence of post operative adhesions mainly between the middle turbinate and lateral nasal wall. No major complica-

tions were recorded in association of either packing technique. Two out of six sides (33%) packed with ribbon gauze had symptoms of recurrent sinusitis and showed endoscopic signs of persistent infection at the middle meatus while 4 out of 18 sides (22%) packed with Merocel showed similar signs. All these patients improved with medical treatment and none of them required revision surgery with a mean follow up 5 months.

Conclusion: Vaseline ribbon gauze nasal packing is more effective than compressed sponge (Merocel) in reducing postoperative nasal adhesions. This packing technique is safe and could reduce the need for further (revision) endoscopic surgery.

Key word: gauze, Merocel, nasal packing, FESS, adhesions.

SIGNIFICANCE OF P27, P53, BAX AND CD44 EXPRESSION IN PAPILLARY THYROID CARCINOMA IN PREDICTING FOR CERVICAL LYMPH NODE METASTASIS

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Abstract

Expression of p27, p53, Bax and CD44 was investigated in 30 papillary thyroid carcinoma (PTC) with or without cervical nodal metastasis to determine the role of immunohistochemical marker for prediction of neck metastasis in these patients.

p27 expression in the non-metastasizing PTC was lower than normal thyroid tissue ($p < 0.01$) and higher than metastasizing PTC ($p < 0.01$), p53 immunoreactivity was present, faint (grade 1) in 2 cases (11%) & moderate (grade 2) in one case (5.5%) of non-metastasizing PTC, while 15 (83.5%) cases of non-metastasizing PTCs and all of metastasizing PTCs and normal thyroid tissue had no immunoreactivity for p53. There was no statistically significant difference among all groups of immunoreactivity for p53. Expression of Bax in patients with PTC was more than normal thyroid tissue ($p < 0.01$). However, non-metastasizing and metastasizing PTC was similar. The results indicate that the metastasizing PTC showed significantly low CD44 expression than the non-metastasizing PTC ($p < 0.05$), also the metastasizing and non-metastasizing PTC showed significantly less CD44 expression than the normal thyroid tissue ($p < 0.05$).

The immunohistochemical evaluation of p27 and CD44 expression in patients with PTC may be useful to predict for metastasis risk of the PTC to regional lymph nodes.

COMPARISON OF WATER DRINKING TEST RESPONSE BETWEEN MEDICALLY CONTROLLED AND SURGICALLY CONTROLLED GLAUCOMA PATIENTS

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Abstract

Purpose: To evaluate whether patients who have undergone trabeculectomy with mitomycin C have a different intraocular pressure (IOP) response profile after the water drinking test (WDT) from that of patients who are medically managed with a similar baseline IOP and level of visual field (VF) damage.

Design: Prospective observational study.

Participants: 12 glaucoma patients with IOP controlled by trabeculectomy and 12 with medically treated glaucoma matched for level of VF damage and IOP at baseline (7-14mmHg).

Methods: All patients underwent the WDT, which involved drinking 1000ml of water in 15 minutes.

Main outcome measures: The IOP was measured before the WDT and subsequently at 15-minute intervals for 1 hour. The peak IOP with the WDT was compared between both groups using paired *t* tests.

Results: Baseline IOPs were 10.3 ± 2.2 mmHg in surgically treated and 11.1 ± 1.7 mmHg in medically treated eyes. After the WDT, mean IOPs in the surgically and medically treated groups were 10.6 ± 2.1 mmHg and 15.1 ± 2.4 mmHg. Mean maximum IOPs were 11.6 ± 2.4 mmHg and 17.2 ± 2.3 mmHg in the surgically and medically treated groups, respectively ($p < 0.0001$), increases of 17.6% and 54.9%. Ranges of IOP during the WDT were 2.2 ± 1.2 mmHg and 5.7 ± 1.8 mmHg in the surgically and medically treated patients ($p < 0.0001$).

Conclusion: *Patients with advanced glaucoma who are medically controlled show greater IOP elevation and peak IOP after the WDT than eyes that have undergone trabeculectomy.*

THE EFFECT OF CRUDE EXTRACT OF PURSLANE ON BLOOD COAGULATION AND FIBRINOLYSIS

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Abstract

Purslane is a highly nutritious food. It was considered to have haemostatic properties. Purslane succulent leaves contain the highest concentration of essential omega-3 fatty acids. Humans and other mammals can't make omega-3 fatty acids so, they must be taken directly from food. The aim of the present work was to study the effect of crude extract of purslane on coagulation factors and fibrinolysis in albino rat. This study was conducted on twenty Albino rats weighing 200-250 gm divided into two groups one control and the other take purslane alcohol extract in a dose of 5gm/kg by intragastric tube for three weeks. All animals were scari-fied and blood samples were collected in 3.8% sodium citrate and analyzed for prothrombin time, activated partial thrombolplastin, coagulation factor II, VII, X and plasminogen activator inhibitor. The results show significant increase in prothrombin time significant decrease in coagulation factor II, VII X while activated partial thromboplastin time show insignificant change. As regard plasminogen activator inhibitor it showed significant increase. In conclusion purslane crude extract with its high content with omega-3 fatty acids can prolong coagulation time but has reverse effect on fibrinolysis.