

Abstract: Clinical Sciences

Ankle Brachial Index and its Relation with National Institute of Health Stroke Scale for Prediction of Severity in Acute Ischemic Stroke Patients

Mukesh Verma, Deepti Sharma

Department of General Medicine, Government Medical College and Associated Group of Hospitals, Kota

INTRODUCTION

Stroke is the second leading cause of death worldwide and third most common cause of disability-adjusted life years in the world. Ankle-brachial index (ABI), which is closely related to atherosclerosis of the lower extremities, is widely used as a marker for peripheral arterial disease (PAD). Abnormal ABI as an indirect indicator of generalized atherosclerosis and initial stroke severity is a strong predictor of long term outcome in ischemic stroke patients. The purpose of this study was to correlate the ankle brachial systolic index of patients suffering from acute ischemic stroke with national institute of health stroke scale to predict severity of stroke.

METHODS

100 patients of acute ischemic stroke fulfilling the inclusion criteria admitted in the Medicine wards of Government Medical College and Associated Group of Hospitals, Kota and 100 age-sex matched control subjects were included in the study.

RESULTS

Mean age was 61.0 ± 13.36 years, with male predominance, male to female ratio 1.5:1. Ankle-brachial index was abnormal (<0.9) in 46% patients. Low ABI was associated with older age, higher BMI ($p < 0.001$), higher WHR ($p < 0.05$) and hypertension ($p < 0.001$). Mean NIHSS score at the time of admission was 13.35 ± 6.10 and a decrease was observed at the time of discharge. Linear decrease in ABI with increasing NIHSS score and higher NIHSS score was associated with low ABI and greater number of the risk factors ($p < 0.001$).

CONCLUSION

Patients with low ABI values presented with more severe ischemic stroke. Measurement of the ankle brachial index identifies subjects at increased risk for ischemic stroke.

Effectiveness of Cord Blood Albumin as a Predictor of Developing Neonatal Hyperbilirubinemia

Gaurav Kumar Garg, R K Gulati

Department of Paediatrics, Government Medical College and Associated Group of Hospitals, Kota

INTRODUCTION

Neonatal hyperbilirubinemia affects nearly 60% of term and 80% of preterm neonates during first week of life. Albumin transports unconjugated bilirubin. The purpose of this study was to predict the development of neonatal hyperbilirubinemia in term and preterm newborns at birth using cord blood albumin as a risk indicator.

METHODS

An observational study was performed on 150 newborns, divided in term and preterm. Cord blood was collected from the newborns and analyzed for cord serum albumin level. Total serum bilirubin was measured during 72-96 hours of life, or earlier if clinically indicated, with sampling of peripheral venous blood. Newborns were assessed clinically daily for neonatal hyperbilirubinemia and interventions were done as per the recommended guidelines of NNF and IAP.

RESULTS

Term and preterm newborns were divided into 3 groups based on cord blood albumin level ≤ 2.8 g/dl, 2.9-3.3g/dl and ≥ 3.4 g/dl, respectively. In these groups, the cord blood albumin levels of newborns with significant hyperbilirubinemia that required intervention was correlated. It showed that cord blood albumin level ≤ 2.8 g/dl is critical, with a good sensitivity and positive predictive value and level more than ≥ 3.4 g/dl probability of developing neonatal hyperbilirubinemia was 6.5% in neonates.

CONCLUSION

There is a significant association between cord blood albumin values and the tendency to develop significant neonatal hyperbilirubinemia in neonates. Cord blood albumin can be used as screening of the newborns for development of neonatal hyperbilirubinemia.

Functional Outcomes of External Fixation versus Volar Locking Plate Fixation for Displaced Intra-Articular Distal Radius Fractures

B K Patidar, R P Meena

Department of Orthopedics, Government Medical College and Associated Group of Hospitals, Kota

INTRODUCTION

Fractures of lower end radius are most common fractures of the upper extremity encountered in practice and constitute 17 % of all fractures and 75% of all forearm fractures. Distal radius fractures are caused by severe high-energy trauma, resulting in intra-articular involvement and comminution. These fractures often are unstable, are difficult to reduce anatomically, and are associated with a high prevalence of complications. The purpose of the study was to compare external fixation versus volar locking plate fixation for displaced intra-articular distal radius fractures.

METHODS

This prospective randomised controlled study was conducted in the Department of Orthopedics Government Medical College and Associated Group of Hospitals, Kota during the year January 2015 to December 2016. Total 40 patients were included in the study. 20 patients were operated by using volar locking plate fixation and 20 patients were operated by using external fixator. Radiological evaluation was done using Sarmiento's modification of Lind Strom Criteria of evaluation. This assessment will be done post operatively to see quality of reduction and follow up to see the maintenance of reduction and fracture healing. Functional evaluation will be done using Gartland and Werley demerit system of evaluation modified by Sarmiento et al.

RESULTS

There was significant difference in range of motion and grip strength at 3 month follow up duration between volar locking plate fixation group and external fixation group. There was no significant difference in range of motion and grip strength at 1 year follow up between both the groups.

CONCLUSION

Use of a volar locking plate resulted in a faster early recovery of function compared with use of external fixation method. However, no functional advantage was demonstrated at or beyond twelve weeks. The study showed no evidence for the superiority of one treatment over the other.

Subclinical Enthesopathy in Psoriasis Patients

Kapil Vyas, Suresh Kumar Jain

Department of Dermatology, Government Medical College and Associated Group of Hospitals, Kota,

INTRODUCTION

Psoriasis is associated with a form of spondyloarthropathy in 10–30% of cases. One of the major features of Psoriasis is enthesitis. The purpose of study was to evaluate subclinical enthesopathy in psoriasis patients and study correlation between the severity and duration of psoriasis with enthesopathy.

METHODS

It is a non interventional and hospital based case control study conducted on patients of Hadoti region. The study included 50 patients of chronic plaque psoriasis and 50 age and sex matched controls. Inclusion and exclusion criteria were defined for the study and severity of psoriasis was indexed by measuring Psoriasis area and severity index (PASI), Nail Psoriasis Severity Index (NAPSI) and Body Surface Area (BSA). Patient as well as control underwent ultrasonographic evaluation of achilles, quadriceps, patellar, triceps entheses and plantar aponeurosis. These sites were evaluated for the presence of signs of enthesopathy such as calcification, erosions, bursitis and doppler power flow for visualising abnormal vascularisation and hyperaemia of soft tissues. Ultrasonographic enthesopathy parameters were scored according to the Madrid Sonographic Enthesis Index (MASEI).

RESULTS

Subclinical enthesopathy was found more common in psoriasis patients as compared to controls (62% versus 10%). Enthesopathy was detected most frequent in achillis tendon. Mean MASEI score at all six entheses sites were significantly higher in cases of psoriasis as compared to controls. Structure abnormalities were found in 80% of cases as compared to 44% of controls. Erosion, calcification and bursitis were seen in 8%, 4% and 20% cases as compared to 2%, 0% and 8% controls respectively. In both groups, power doppler was unable to show abnormal flow signal.

CONCLUSION

Entheseal abnormalities can be documented by ultrasonography in clinically asymptomatic patients with psoriasis but large scale studies are needed to better delineate the correlation between severity of psoriasis and ultrasonographic enthesopathy indices.

Predictability of Different Intraocular Lens Calculation Formulae in Eyes of Different Axial Lengths

Neha Sumat Agarwal, Rakesh Porwal

Department of Ophthalmology, J L N Medical College and Associated Group of Hospitals, Ajmer

INTRODUCTION

In post-operative cataract patients with intra ocular lens implantation, good visual outcome largely depends upon accurate intra ocular lens power therefore calculation of intra ocular lens power accurately has become an important pre-operative clinical assessment requisite. The purpose of the study was to assess the predictability of different intraocular lens (IOL) calculation formulae in eyes of different axial length.

METHODS

A prospective and comparative study was carried out at Ophthalmology Department, J L N Medical College and Associated Group of Hospitals, Ajmer from June 2015 to May 2016 and patients were divided into 3 groups (100 each) on the basis of axial length. 'Group I' having < 22.00mm, 'group II' having 22.00-24.50 mm and in 'group III' - > 24.50 mm. IOL power calculation in each group was done by SRK II, Hoffer Q, Holladay, SRK T and Haigis formulae.

RESULTS

In group I, Hoffer Q formula had smallest mean 'absolute error'. Difference between Hoffer Q and Holladay was not statistically significant while there was statistically significant difference between Hoffer Q and other three formulae. In group II, SRK II formula had smallest mean 'absolute error'. There was statistically significant difference between SRK II and other four formulae. In group III, Holladay formula had smallest mean 'absolute error'. Difference between Holladay and SRK T was not statistically significant while there was statistically significant difference between Holladay and other three formulae.

CONCLUSION

Hoffer Q and Holladay were equally accurate in predicting the post-operative refractive outcome after cataract surgery in eyes of axial length <22.0 mm. SRK II formula was most accurate in predicting the post-operative refractive outcome after cataract surgery in eyes of axial length 22.0-24.5 mm. Holladay and SRK T were equally accurate in predicting the post-operative refractive outcome after cataract surgery in eyes of axial length >24.5 mm.

Comparative Study of Surgical Management of Fracture Distal Humerus by Using Triceps Reflecting Anconeus Pedicle Approach and Olecranon Osteotomy Approach

Devendra Tatarwa, A K Tiwari

Department of Orthopedics, Government Medical College and Associated Group of Hospitals, Kota

INTRODUCTION

Intra articular fractures of distal humerus constitute 0.5%-7% of all fractures. A painless, stable and mobile elbow joint is desired as it allows the hand to conduct the activities of daily living. A perfect or near perfect reduction requires an approach which can help in visualization and reduction of articular surface. The purpose of this study was to compare surgical management of fracture distal humerus by using triceps reflecting anconeus pedicle approach and olecranon osteotomy approach.

METHODS

This study was conducted in the Department of Orthopedics, Government Medical College and Associated Group of Hospitals, Kota from August 2014 to June 2016. 33 patients were admitted with closed fractures of distal humerus. 33 patients were divided into two groups. In Group 1 having 17 patients, were operated by using triceps reflecting anconeus pedicle approach (TRAP) and in Group 2 having 16 patients were operated by using olecranon osteotomy approach. At every follow up, functional assessment was done by MEPI score as well as radiological assessment by X rays.

RESULTS

Out of 33 patients, 2 patients were lost in follow up. In TRAP approach (16 patients) 11 patients (68.75%) had either excellent or good results, mean loss of extension was 16.25° and three patients had extensor weakness. In olecranon osteotomy approach (15 patients) 11 patients (73.26%) had either excellent or good results, mean loss of extension was 12°, three patients had implant protrusion and one had non union at osteotomy site.

CONCLUSION

Both approaches have excellent articular surface visualization but have potential complications. Olecranon osteotomy is associated with prominence/migration of hardware on displacement/nonunion of osteotomy, whereas in TRAP approach, there is a risk of triceps dehiscence and extensor weakness.

Echocardiographic Evaluation of Diastolic Dysfunction in Type 2 Diabetes Mellitus and its Correlation to Microvascular Complications

Jitendra Kumar Saini, Rajesh Jain

Department of Medicine, J L N Medical College and Associated Group of Hospitals, Ajmer

INTRODUCTION

In diabetic patients, incidence of heart failure is high, even in the absence of hypertension and coronary artery disease. Although heart disease in Diabetes is primarily due to macrovascular origin, but growing evidence from different observations suggests the possibility of microvascular pathogenesis also. The purpose of the study was to assess the diastolic dysfunction in asymptomatic, normotensive type 2 Diabetes mellitus patients and to correlate it with the microvascular complications (nephropathy and retinopathy).

METHODS

The cross sectional study was carried out at J L N Medical College and Associated Group of Hospitals, Ajmer on 60 type 2 diabetic patients (34 male and 26 female). Diabetic retinopathy evaluation was done by using the direct ophthalmoscope. Diabetic nephropathy was assessed by a 24 hour urine albumin measurement. 2D-echocardiography was done to assess left ventricular diastolic dysfunction.

RESULTS

Maximum number of patients were in the age group 50 -59 years (18 patients). The mean age in the study was 49.3 ± 10.4 years. The overall prevalence of retinopathy in the study was 51.6% (31) and that of nephropathy was 66.67% (40). 34 of the study subjects had evidence for diastolic dysfunction. Out of 31 patients with retinopathy, 26 (83.8%) had diastolic dysfunction (p value < 0.001) and among 40 patients with nephropathy, 32 (80%) had diastolic dysfunction (p value < 0.001).

CONCLUSION

Diastolic dysfunction is strongly associated with retinopathy and nephropathy and it strongly supports microvascular origin of pathogenesis of diastolic dysfunction.

A Comparative Study of 0.1% Ropivacaine with Fentanyl and 0.1% Bupivacaine with Fentanyl for Epidural Labour Analgesia

Firoz Satpathy, Archana Tripathi

Department of Anaesthesiology, Government Medical College and Associated Group of Hospitals, Kota.

INTRODUCTION

The pains of labour result in a maternal stress response, which is neither beneficial for the fetus nor the mother. All the available methods of labour analgesia, epidural analgesia satisfies the basic requirements of labor analgesia by fulfilling the objective of decreasing the pains of labour. The study was undertaken to compare the efficacy, maternal outcome and neonatal outcome of equal concentration of Ropivacaine and Bupivacaine with Fentanyl for epidural labour analgesia when given as intermittent top up doses.

METHODS

The study was conducted on 40 term patient of ASA grade I and II with singleton pregnancies in vertex presentation and cervical dilatation 3-6 cm requesting painless labour. Patients were randomly divided into two groups of twenty patients each. Group R-patients received 0.1% Ropivacaine 10 ml and Fentanyl 20 µg and Group B-Patients received 0.1% Bupivacaine 10 ml and Fentanyl 20 µg. Onset, degree, duration and levels of analgesia were noted. Vital parameters like Non Invasive Blood Pressure (NIBP), pulse, respiratory rate, visual analogue scale (VAS) score, motor power grade, foetal heart rate (FHR) and any side effects noted before and after block at 0,15,30,45,60,90,120,150 minutes interval. When VAS > 3, top up was repeated.

RESULTS

In Group B, onset of analgesia was significantly shorter (17.93 ± 1.55 minutes) as compared to 23.53 ± 1.67 minutes in Group R. The duration of effective analgesia was 88.2 ± 5.86 minutes in Ropivacaine group which was significantly longer as compared to 71.77 ± 4.45 minutes in Bupivacaine group. There were no statistical differences in the amount of local anaesthetic used, pain scores, sensory levels, motor blockade, mode of delivery and side effects or patient satisfaction among the two local anaesthetic used in intermittent top up techniques.

CONCLUSION

The combinations of Ropivacaine or Bupivacaine with Fentanyl achieve equally effective and excellent labour analgesia with no motor blockade and without jeopardising safety of mother and foetus.

Prevalence of Dry Eye in Post-Menopausal Females Attending a Tertiary Care Ophthalmology Clinic

Tarun Gupta, Jaishree Singh

Department of Ophthalmology, Government Medical College and Associated Group of Hospitals, Kota

INTRODUCTION

Dry eye syndrome (DES) is one of the most frequently encountered ocular conditions. Clinical observations have long suggested that DES is more common in women, particularly among older women. There are few epidemiological data available to describe the magnitude of the problem of DES among post-menopausal women especially in India. The purpose of study was to find out the prevalence of dry eye in post-menopausal females.

METHODS

A total of 200 post-menopausal females reporting to Department of Ophthalmology, Government Medical College and Associated Group of Hospitals, Kota were included in the study. All patients were given Ocular Surface Disease Index (OSDI) questionnaire. Diagnosis of dry eye in the study is made when two of the 3 tests are positive viz. tear film break-up time <10 sec, ocular surface dye staining with Lissamine green dye (Van Bijsterveld's score >4) and Schirmer-I test (< 10 mm).

RESULTS

Prevalence of dry eye syndrome was high in this age group i.e. 44% (88/200 post- menopausal women). 49% (98 post menopausal women) responded with symptoms of dry eye (OSDI score>12), thus OSDI is a reliable questionnaire to diagnose dry eye syndrome on the basis of symptoms ($p<0.00$). Tear film break up time (TBUT) test sensitivity was 97.6 % and negative predictive value was 98.83%. Lissamine Green dye staining was less sensitive but more specific test to diagnose dry eye syndrome. Schirmer I test has high sensitivity (91.2%) and high specificity (96.36%). The positive predictive value was 91.94 % and negative predictive value was 96.01 %. All three tests are reliable in diagnosing dry eye as each had p value < 0.001 Meibomian gland dysfunction was present in 10 % of dry eye positive females.

CONCLUSION

There is high prevalence of dry eye in post- menopausal female having significant morbidity.

Efficacy of Dexmedetomidine as an Adjuvant to Ropivacaine in Femoral Nerve Block for Acute Pain Relief in Patients of Fracture Shaft and Neck Femur

Hemant Kumar, Archana Tripathi

Department of Anaesthesiology, Government Medical College and Associated Group of Hospitals, Kota

INTRODUCTION

Analgesia in patients with fracture shaft and neck femur is usually insufficient as physician usually relies on parenteral analgesia. Local anaesthetic blockade of femoral nerve to provide analgesia in fracture shaft and neck femur is an under-used technique. Dexmedetomidine when added to local anaesthetic in femoral nerve block causes better quality of analgesia. The aim of this study was to evaluate the efficacy of Dexmedetomidine added to Ropivacaine in femoral nerve block with regard to onset, duration and efficacy of analgesia, degree of sedation and patient acceptance.

METHODS

After Institutional Ethical Committee's approval, sixty patients of ASA grade I and II, of either sex, aged between 18 and 60 years, having fracture shaft and neck femur, presenting in emergency ward were randomly divided into 2 groups of 30 patients each. Group D: Patients received 15 ml Ropivacaine 0.5% plus Dexmedetomidine $1\mu\text{g}/\text{kg}$ body weight. Group R: Patients received 15 ml Ropivacaine 0.5% plus 1ml saline. The onset of block, visual analogue scale (VAS score), duration of analgesia, degree of sedation, haemodynamic variables were assessed.

RESULTS

The onset of analgesia was earlier in group D (3.77 ± 0.84 min) than in group R (4.6 ± 1.1 min). The fall in VAS score was significantly higher in group D in comparison to group R. Mean duration of analgesia was significantly prolonged in group D (744.3 ± 179.6 min) than in group R (263 ± 67 min). Sedation score was better in group D than in group R.

CONCLUSION

Dexmedetomidine when added to local anaesthetics in femoral nerve block it causes early onset, prolongs the duration and quality of analgesia. It is better acceptable to patients and provides mild sedation that removes anxiety and fear.

Study of the Prevalence of Low Vitamin D Level in Newly Diagnosed HIV Infected Adults and Comparison among Adults

Rajendra Sharma, Gurdeep Kaur

Department of Medicine, R N T Medical College and Associated Group of Hospitals, Udaipur

INTRODUCTION

Vitamin D is essential for calcium homeostasis and bone metabolism. Vitamin D deficiency is associated with a number of comorbidities and is very common in India in all the age groups and both sexes across the country. Low vitamin D levels have been associated with HIV disease progression and HIV related complications. The purpose of this study was to study the prevalence of low vitamin D in newly diagnosed HIV positive patients and compare it with normal population in southern Rajasthan.

METHODS

It was a prospective case control study conducted from January 2016 to December 2016. In this study newly diagnosed HIV patients who were registered under ART centre at RNT Medical College and Associated Group of Hospitals were taken as cases. Controls were normal individual without premorbidities.

RESULTS

In case group 78% patient were vitamin D deficient, 12% were vitamin D insufficient and only 10% were vitamin D sufficient, whereas in control group 48% patient were vitamin D deficient, 18% were vitamin D insufficient and 34% were vitamin D sufficient. There is significant ($p < .005$) difference between prevalence of vitamin D deficiency in these two groups. There is weak but significant correlation (correlation coefficient = .336) between vitamin D and CD4 cell count. Increased CD4 cell count is seen in patient with sufficient vitamin D level.

CONCLUSION

The study has shown that, as compared to the general population, the HIV population seems to be more susceptible to vitamin D deficiency and to its adverse effects, so all HIV positive patients should be prescribed vitamin D supplements.

A Study of Quality of Life, Marital Adjustment and Psychiatric Co-morbidities in Women with Primary Infertility

Shilpa Maida, B S Shekhawat

Department of Psychiatry, Government Medical College and Associated Group of Hospitals, Kota

INTRODUCTION

Infertility is defined as one year of unprotected intercourse without pregnancy. Living as an involuntarily childless is challenging for a women as well as for her femininity. Infertility is not only a medical problem but it also influences quality of life (QOL), psychological health, marital and social life of patients.

METHODS

The study was carried out on 60 female patients who attended gynaecology OPD of New Medical College Hospital, Kota and diagnosed a case of primary infertility by consultant gynaecologist. 60 age matched healthy fertile women were recruited as control group. The data were collected by using specially designed proforma, WHOQOL-BREF (hindi version), Revised Dyadic Adjustment Scale (RDAS), GHQ-12, ICD-10 criteria, Hamilton rating scale for Anxiety and Hamilton rating scale for Depression. Data were analysed by using suitable statistics.

RESULTS

57% were suffering from depression and 51.6% were suffering from anxiety (including mixed anxiety and depressive) disorder. 60% of patients were experiencing marital distress. Infertile women had poor QOL. Significant correlations were found between QOL and socio-demographic factors (education of patient and husband, age of patient and husband at the time of marriage, family income and duration of marriage), clinical profile (tobacco abuse, menstrual irregularities, dyspareunia and treatment duration), marital adjustment, severity of depression and anxiety disorder. Likewise significant correlations were found between marital adjustment and socio-demographic factors (family income, type of marriage, duration of marriage), severity of depression and anxiety disorder.

CONCLUSION

Infertility causes psychiatric morbidity, marital distress and poor QOL and significant correlations were also found among them. Results of this study can be helpful in psychological management and health planning for infertility.

Assessment of Acute Gastro-Intestinal and Genito-Urinary Toxicities in the Cervical Cancer Patients Using Cobalt-60 Based High Dose Rate Intra Cavitory Brachytherapy

Abhay Kumar Jain

Department of Dermatology, R N T Medical College and Associated Group of Hospitals, Udaipur.

INTRODUCTION

Recently introduced Cobalt-60 (Co-60) HDR source has longer half life of 5.2 years compared with 73.8 days of Ir-192 and is more economical and attractive for low resource settings. Few reports suggested that higher energy of this source would cause more acute toxicities. The purpose of this study was to know acute gastrointestinal and genitourinary toxicities associated with Co-60 source in HDR ICRT of cervical cancer patients and its comparison with similar toxicities in Ir-192 based HDR ICRT.

METHODS

Total 65 patients of carcinoma cervix were enrolled who attended OPD between May 2016 to September 2016. External beam radiotherapy (EBRT) of dose 45-50 Gy in 25 fractions @ 180-200cGy per fraction delivered over 5 days per week using teletherapy Cobalt 60 machine. ICRT was started after one week of completion of EBRT. Fletcher suite applicators were used for brachytherapy in all patients. Total 3 sessions of ICRT, 7Gy each, were delivered 72 hours apart. The acute gastro-intestinal (GI) and acute genito-urinary (GU) toxicities were assessed using Common Terminology Criteria for Adverse Events version 4.03 (CTCAE). The only highest grade of particular GU and GI toxicity was used for final analysis of this study. All patients were kept in follow up for total 3 months in this study.

RESULTS

Only two patients (3%) had grade 3 acute diarrhoea. In other studies, the reported rates of acute toxicities \geq grade 3 ranged from 0%–8% for gastrointestinal and 0%–3% for genitourinary toxicities.

CONCLUSION

The acute gastrointestinal and genitourinary toxicities of high-dose-rate intracavitary brachytherapy using Co-60 radionuclide source is low and comparable with Iridium-192. Additionally, Co-60 has economic advantage over Ir-92. Thus, it is more suitable for low economic resource settings.

Study of Internet Addiction Disorder in Medical Students

Siddharth Rathore, C S Sushil

Department of Psychiatry, Government Medical College and Associated Group of Hospitals, Kota

INTRODUCTION

Internet addiction and its related consequences may serve as potential health hazard subsequent to an unchecked information technology boom in the 21st century. Online gaming, compulsive use of social networking and marathon internet surfing sessions are all included in this addiction. This study was designed to find the prevalence of internet addiction disorder (IAD) in medical students and to study socio-demographic characteristics and psychiatric co-morbidity in patients with IAD.

METHODS

A cross-sectional survey was carried out in 200 medical students of first and third year MBBS at Government Medical College and Associated Group of Hospitals, Kota. The study participants were selected by using simple random sampling method. The data were collected by using specially designed proforma for the study, Young's internet addiction scale, GHQ12, Hamilton rating scale for Anxiety and Beck's Depression Inventory and results were statistically analyzed.

RESULTS

The prevalence of problematic internet use among medical students was 7%. Internet addiction was positively correlated with duration of internet use, time spent on internet and frequency of internet use. Students were more interested in social networking, academics and entertainment on internet. Majority of students used their smart phones to access internet. There was positive correlation found between scores on HAM-A and Y-IAS and scores on BDI and Y-IAS.

CONCLUSION

Internet addiction is indeed a real problem, which is worsening with increasing access to the internet. While a medical student should remain up to date with recent advances and technology using internet, the negative consequences of it must be recognised, studied, examined and intervened to minimise the potential harm to the individual as well as the society.

Role of Magnetic Resonance Cholangio-Pancreaticography in Patients with Pancreaticobiliary Diseases

Preeti Meena, Kirti Rana

Department of Radiodiagnosis, Dr S N Medical College and Associated Group of Hospitals, Jodhpur

INTRODUCTION

Magnetic Resonance Cholangio-Pancreaticography (MRCP) is based on the principle of high signal intensity (white) of bile and pancreatic secretions on heavily T2 weighted sequences against dark background of surrounding tissues. The purpose of study was to describe features of pancreatico-biliary diseases on MRCP, outlining the extent of disease, identify anatomical variants and to compare ERCP whenever possible.

METHODS

This prospective study was conducted on 67 patients over a period of one year (January-December 2015) at Dr S N Medical College and Associated Group of Hospitals, Jodhpur. All patients underwent MRCP [14 patients also underwent Endoscopic Retrograde Cholangio-Pancreaticography (ERCP)]. Variables assessed were: biliary system dilation, patency of ductal confluence, bile ducts strictures, bile duct calculus, gallstones. Statistical analysis was done and sensitivity, specificity, positive predictive value, negative predictive value and accuracy were calculated; ERCP was considered the gold standard.

RESULTS

The commonest finding was malignant bile duct stricture (37%), followed by cholelithiasis (34%), cholecystitis (15%), choledocholithiasis (12%), chronic pancreatitis (12%), pseudocyst (9%), benign stricture (7%), acute pancreatitis (6%) and choledochal cyst (3%). Most common cause of malignant stricture was cholangiocarcinoma followed by gall bladder (GB) mass, periampullary mass, advanced stomach mass. Most benign duct strictures were iatrogenic followed by portal biliopathy. Most common location of calculi was distal CBD while in one patient calculus was seen at papilla. Sensitivity, specificity, PPV (positive predictive value), NPV (negative predictive value) and accuracy of MRCP were 100% for CHD and confluence stricture.

CONCLUSION

MRCP is comparable better than ERCP for confluence strictures, segmental calculi or detection of mass lesion or any other pathology outside the biliary tract, However ERCP is still considered gold standard for entity like calculi at papilla.

Temperamental Traits and Psychological Problems of children with Bronchial Asthma

Subhash Palsania, P K Berwal

Department of Paediatrics, S P Medical College and Associated Group of Hospitals, Bikaner.

INTRODUCTION

Children with chronic physical illness are at increased risk of developing psychological disorders. Bronchial asthma is one of the most common chronic illnesses during childhood. Studies have noted that characteristic temperamental traits may be associated with both physical and psychiatric disorders in children. Purpose of the study was to find out temperamental traits and psychological problems of children with bronchial asthma.

METHODS

The study was conducted in the Department of Paediatrics, S P Medical College and Associated Group of Hospitals, Bikaner during a period of one year from January, 2016 to December 2016. The tools used in this study were Childhood Psychopathology Measurement Schedule (CPMS), and another schedule consisting of questions pertaining to socio-demographic data of the children. The children who scored more than 10 were assessed further and interviewed clinically and diagnosed according to International Classification of Diseases-10 (ICD-10) criteria. Temperament assessment was done on basis of temperament measurement schedule which is an Indian adaptation of Thomas and Chess's schedule.

RESULTS

In the present study 27% cases and 7% controls were diagnosed to have psychiatric disorders on basis of CPMS cut off level i.e. 10. A maximum proportion ICD-10 classified psychiatric disorder was of anxiety depression followed by anxiety. There were some differences found among rhythmicity, activity level, persistence, threshold, and approach/withdrawal.

CONCLUSION

Bronchial asthma is the most common chronic illness of childhood and young children experience the greatest burden of asthma morbidity. The current study showed an association between severity of disease and psychosocial impairment.

Role of MRI Imaging in Evaluation of Adnexal Lesions

Om Prakash Rathore, Kirti Rana

Department of Radiodiagnosis, Dr S N Medical College and Associated Group of Hospitals, Jodhpur

INTRODUCTION

Adnexal lesions is a lump in tissue of the adnexa of uterus, it can be benign or cancerous. The purpose of the study was to assess the role of MRI in evaluating sonologically diagnosed indeterminate adnexal lesions, and note the advantages and limitations of one modality over the other.

METHODS

This prospective study was conducted on 50 patients with 62 adnexal lesions presenting from January-December 2015 at Department of Radiodiagnosis, Dr S N Medical College and Associated Group of Hospitals, Jodhpur. USG and MRI using standard protocol were performed in all patients with adnexal lesions. Statistical analysis for specificity, sensitivity and accuracy were calculated in 26 operated patients with 31 adnexal lesions considering operative and histopathological findings as gold standard. Remaining patients were either followed up with USG or MRI or analysed only on basis of imaging findings.

RESULTS

Majority (27.4%) of the patients were 31-40 years and malignant lesions were common above 50 years. About 80% adnexal lesions were unilateral. About 62.9% of the lesions were ovarian in origin, most of which are benign (84.6%), commonest being cystadenoma/cystadenofibromas (19.3%) followed by endometriomas (16.1%). MRI is more accurate than USG in detecting omental caking/peritoneal nodules, tissue of origin and for diagnosing leiomyomas, endometriomas and dermoids. MRI and USG were equally accurate for defining wall and septal characteristics. Sensitivity, specificity and accuracy of MRI in detecting adjacent organ invasion in 26 operated patients with 31 adnexal lesions were 100%. Sensitivity, specificity and accuracy of MRI and USG in diagnosing malignancy were 100%, 92.3%, 93.5% and 100%, 88.4%, 90.3%, respectively.

CONCLUSION

Sensitivity of MRI and USG for diagnosing malignancy of adnexal lesions is similar. However, due to better specificity and lower false positivity rate, higher sensitivity in detecting invasion of adjacent organs and organs of origin of lesions, MRI may be considered complimentary for optimal patient management.

High Resolution Computed Tomography in Silicosis: Correlation with Clinical and Pulmonary Function Tests

Faridh R

Department of Medicine, S M S Medical College and Associated Group of Hospitals, Jaipur

INTRODUCTION

Imaging and pulmonary functions are the two domains of assessing silicosis. Quantification of HRCT was hampered due to lack of a standardized method. The study was aimed to correlate HRCT findings with pulmonary function tests and to compare the HRCT findings with the chest X-ray findings in patients of silicosis.

METHODS

A cross-sectional study of 43 non-smoking patients without a history of tuberculosis was undertaken in S M S Medical College and Associated Group of Hospitals, Jaipur. Chest X-ray (CXR) findings were classified according to the ILO recommendations. A semi-quantitative analysis of HRCT was done using international classification of HRCT for occupational and environmental respiratory diseases. Pulmonary functions were analyzed with spirometry and six minute walk test. Relationships among the imaging and functional parameters were analyzed by using Spearman correlation.

RESULTS

There was a moderate positive correlation of nodular profusions and large opacities of chest X-ray and HRCT. By HRCT, large opacities detection increased by 72%. Predominant type of emphysema was found to be centrilobular type. Large opacity in chest x-ray and all HRCT parameters were inversely related to lung functions. At multiple regression analysis, emphysema was found to be the significant determinant of forced expiratory volume in one second while large opacities significantly determined forced vital capacity. Forced expiratory volume in first second (FEV1) was found to be the determinant of respiratory impairment rating in 21 out of 24 patients. A 54 meters change in six minute walk test was associated significantly with changes in respiratory impairment rating ($p=0.003$).

CONCLUSION

HRCT parameters of large opacities and emphysema were the determinants of respiratory impairment rather than nodular profusion (RO score). Obstructive ventilator defects (FEV1) and its determinant (emphysema) play a major role in determination of respiratory impairment rating in silicosis. Further, our study validates six minute walk test in silicosis.

Prognostic Factors Determining the Outcome of Non-Invasive Ventilation in Acute Exacerbation of COPD with Hypercapnic Respiratory Failure

Thomas Kurian

Department of Respiratory Medicine, S M S Medical College and Associated Group of Hospitals, Jaipur

INTRODUCTION

The ability to predict those likely to fail with non invasive ventilation (NIV) is crucial. The aim of this study was to study the factors predicting the outcome of NIV in patients with acute exacerbation of COPD.

METHODS

The study was conducted on a group of 114 patients in the Department of Respiratory Medicine, Institute of Respiratory Diseases, S M S Medical College, Jaipur. After establishing the diagnosis, arterial blood gas (ABG) analysis was done and all patients with $\text{paCO}_2 > 50$ mm Hg and pH 7.20-7.35 were selected. Patients who improved with NIV were considered as success. Those patients who did not tolerate NIV or did not improve on NIV and those who required invasive ventilation were considered as failure.

RESULTS

Out of the 114 patients included in the study, 86 patients were successfully treated with NIV, giving a success rate of 75.4%. Success rate was lower in patients with previous history of mechanical ventilation (52.6% vs. 80%) and in those with higher pulse rate at the start of NIV. Patients with $\text{pH} \leq 7.25$ had a lower success rate as compared to $\text{pH} 7.25-30$ and $\text{pH} 7.31-35$ (40.7% vs. 86.6% and 85.7% respectively) ($p < 0.001$). The subjects with successful outcome of NIV showed gradual increase in mean pH from 7.29 at start to 7.32 after 3 hours ($p < 0.001$), whereas patients with NIV failure showed significant decrease in mean pH from 7.259 to 7.25 after 3 hours ($p < 0.05$). Success rate of NIV was highest in patients with $\text{pCO}_2 < 60$ mm Hg (100%) and gradually decreases as pCO_2 increases with lowest being for those with $\text{pCO}_2 > 80$ mm Hg (48%) ($p < 0.05$).

CONCLUSION

Acidosis at the start of initiating NIV, higher levels of pCO_2 , higher pulse rate and history of mechanical ventilation may be used as parameters which may predict NIV failure in acute exacerbation of COPD.

Pattern of Tobacco-Use and Degree of Disability among Patients Suffering from Schizophrenia in Udaipur Region

Bhagyashree Garasia, Sushil Kherada, Suresh Gocher

Department of Psychiatry, R N T Medical College and Associated Group of Hospitals, Udaipur.

INTRODUCTION

Schizophrenia, impact negatively on the academic, occupational, social and family functioning of the patients and it's a prominent cause of illness disability. Higher prevalence of tobacco-use in schizophrenia patients than the general adult population leads to excess morbidity and mortality because of premature deaths from tobacco-related illnesses. Therefore, the study was undertaken to study the pattern of tobacco-use and degree of disability among patients suffering from schizophrenia in Udaipur region

METHODS

Schizophrenia, impact negatively on the academic, occupational, social and family functioning of the patients and it's a prominent cause of illness disability. Higher prevalence of tobacco use in schizophrenia patients than the general adult population leads to excess morbidity and mortality because of premature deaths from tobacco-related illnesses.

RESULTS

In the study, 53.4% prevalence of tobacco use was seen among schizophrenic patients. 13.8% non-tobacco and 26% of tobacco-user schizophrenia have moderate disability. Greater numbers of tobacco-users were in non-remitting condition than non-tobacco users. After tobacco consumption in 20% patients severity of illness was increased. More than half of a patient had increased consumption after onset of schizophrenia.

CONCLUSION

Use of tobacco products in schizophrenic patients is frequently associated with high nicotine dependence and moderate disability. Greater number of tobacco users belong to low socioeconomic background and found in non-remission state of illness. Tobacco consumption pattern showed that majority of them had multiple failed attempts and poor motivation for abstinence. Mental care services should implement persistent supportive and supervising programs for tobacco-abuse treatment and mental health providers need to help patients who want to quit smoking.

Evaluation of Left Ventricular Function in Patients with Chronic Obstructive Pulmonary Disease

Sandeep Rajotia

Department of Respiratory Medicine, S M S Medical College and Associated Group of Hospitals, Jaipur

INTRODUCTION

Chronic obstructive pulmonary disease (COPD) has considerable effects on cardiac functions, including those of the right ventricle, left ventricle, and pulmonary blood vessels. The purpose of this study was to assess and analyze left ventricular (LV) dysfunction and find association between the severity of disease and echocardiographic findings.

METHODS

It was a descriptive and observational type of study conducted at Department of Respiratory Medicine, SMS Medical College and Associated Group of Hospitals, Jaipur from May 2015 to May 2016. Total 100 cases diagnosed as COPD were included in the study. Cases with other concurrent disease like pulmonary and heart disease (structural or ischemic) and unstable cardiorespiratory functions were excluded. All cases underwent clinical evaluation, spirometry and echocardiography.

RESULTS

Amongst these cases 17% had normal echocardiographic parameters. Most common abnormality was left ventricular diastolic dysfunction (LVDD) which was present in 72% cases [40.9% in mild, 64.3% in moderate, 87.5% in severe, 94.44% in very severe COPD (p value < 0.001)]. Pulmonary artery hypertension (PAH) was observed in 61% cases, (mild in 42%, moderate in 14%, and severe in 5%). There was significant increase in occurrence of PAH with increase in severity of COPD (p value < 0.001). Cor pulmonale was observed in 30% cases (p value 0.237). COPD cases with PAH were associated with LVDD (p value < 0.001) and cor pulmonale (p value < 0.001).

CONCLUSION

Chronic obstructive pulmonary disease patients have a high prevalence of left ventricular diastolic dysfunction, which is associated with disease severity. COPD cases with PAH are more liable to LV diastolic dysfunction and development of cor pulmonale than normal pulmonary pressure COPD cases.

A Cross Sectional Hospital Based Study to Assess Various Outcomes Among Undiagnosed Exudative Pleural Effusion Patients Through Medical Thoracoscopy

Prahalad Dayama, Gunjan Soni

Department of Respiratory Medicine, S P Medical college and Associated Group of Hospitals, Bikaner

INTRODUCTION

Thoracoscopy guided pleural biopsy today remains the gold standard technique in providing diagnosis and management in these cases. It enables the taking of pleural biopsies under direct vision, therapeutic drainage of effusions and pleurodesis in one sitting. The purpose of study was to assess various outcomes among undiagnosed exudative pleural effusion patients through medical thoracoscopy.

METHODS

This is a hospital based descriptive type of observational study. On the basis of Light's criteria, 50 patients of undiagnosed exudative pleural effusion were selected for medical thoracoscopic guided pleural biopsy.

RESULTS

In this study mostly metastatic carcinoma occurred in 21 cases (42%) followed by tubercular granuloma in 14 patients (28%), malignant mesothelioma in 12 patient (24%), three patients remained undiagnosed and thus the sensitivity of medical thoracoscopy in undiagnosed exudative pleural effusion was 94%.

CONCLUSION

Thoracoscopy plays a major role in the diagnosis of undiagnosed exudative pleural effusion having a higher sensitivity. Hence, every patient of undiagnosed exudative pleural effusion should be subjected to diagnostic thoracoscopy.

Role of Tamsulosin in the Management of Lower Ureteric Stone

Parikshit Singh Chandawat, Ashok Kumar

Department of General Surgery, SP Medical College and Associated Group of Hospitals, Bikaner

INTRODUCTION

Lower ureteric stones are common problem encountered in emergency and in outdoor patients. Numerous minimally invasive interventional (e.g., ESWL, ureterorenoscopy, the Holmium: YAG laser and basket devices) as well as expectant (watchful waiting) treatments exist for the management of lower ureteric calculi. Many groups have tried Tamsulosin (selective α 1-adrenergic receptors blocker) to facilitate spontaneous passage of distal ureteral calculi. The purpose of this study was to study the role of Tamsulosin in expulsion of lower ureteric stones and control of ureteral colic pain.

METHODS

In this prospective hospital based study, a total of 100 patients were included and divided into two groups, group A (50 patients) given Tamsulosin 0.4 mg, 1 daily up to 4 weeks while group B (50 patients) were given regularly practiced treatment without Tamsulosin with distal ureteric stone. Study duration was six months and study was conducted at S P Medical College, Bikaner.

RESULTS

Group A showed a statistically significant advantage in terms of the stone expulsion rate. 41 patients (82%) in group A and 30 patients (60%) in group B expelled stones. Overall patients in group A had mean expulsion time of 7.86 days, whereas in group B mean expulsion time was 18.64 days. In group A stone expulsion rate was higher as compared to group B. In group A only 12 (24%) patients experienced pain relapses whereas, in group B 32 (64%) patients reported pain relapses. The Diclofenac dosage required in group A was observed to be 1.62 tablets whereas in group B it was 2.6 tablets.

CONCLUSION

Tamsulosin should be considered for uncomplicated distal ureteral calculi before ureteroscopy or extracorporeal lithotripsy. As Tamsulosin has been found to increase and hasten stone expulsion rates, it decreases acute attacks and reduces analgesic dose usage.

A Comparative Study of Efficacy of Microneedling versus Microneedling with Autologous Platelet Rich Plasma in Facial Atrophic Acne Scars

Chandresh Kumar Yadav, Ashok Mehrada

Department of Dermatology, JLN Medical College and Associated Group of Hospitals, Ajmer.

INTRODUCTION

Post acne scarring is a consequence of abnormal resolution or wound healing following the damage that occurs in the sebaceous follicle during acne inflammation. The present study was undertaken to compare the improvement in facial atrophic acne scars by microneedling alone and combination of microneedling with autologous platelet rich plasma (PRP).

METHODS

This is a prospective, interventional, comparative study conducted from December 2015– December 2016 at the Department of Dermatology, JLN Medical College and Associated Group of Hospitals, Ajmer. A total of 50 patients were enrolled fulfilling inclusion criteria and divided into two randomized group of 25 each i.e. group A (microneedling alone) and group B (microneedling with PRP). Three sessions on monthly interval were conducted and final follow up was done at 4th month. They were evaluated by Goodman and Baron's quantitative and qualitative grading scale, by clinical improvement and by patient satisfaction.

RESULTS

A qualitative and quantitative improvement in both the groups was observed. The improvement in group B was more than A on Goodman and Baron's quantitative and qualitative grading scale, however was not statistically significant. On clinical improvement and on patient satisfaction, group B had better results than group A which was statistically significant with $p < 0.05$.

CONCLUSION

Microneedling with autologous PRP is simple, safe and cost-effective procedure for facial atrophic acne scars. Microneedling when combined with autologous PRP provides better overall clinical improvement. PRP should be considered as an adjuvant therapeutic option along with microneedling in the management of atrophic acne scars.

Outcome of Endoscopic Endonasal Dacryocystorhinostomy with or without Silicon Tube Stent and Comparison with External Dacryocystorhinostomy

Suman Bishnoi, Ramesh Kadela, Deepchand

Department of Otorhinolaryngology, S P Medical College and Associated Group of Hospitals, Bikaner

INTRODUCTION

Epiphora can be due to an obstruction, stenosis, punctual malposition or functional disorder of the lacrimal passages. A dacryocystorhinostomy (DCR) is the creation of a fistula from the lacrimal sac into the nose. The present study was planned to evaluate the results of Endoscopic Endonasal DCR with or without silicon stent in patients with nasolacrimal duct obstruction. The study also focused on the improvement in symptoms and quality of life of patients after endoscopic endonasal DCR and its comparison with external DCR.

METHODS

This is a randomized prospective study conducted on patients of Chronic Dacryocystitis admitted in the Department of Otorhinolaryngology, S P Medical College and Associated Group of Hospitals, Bikaner from May 2015 to May 2016. The study included 60 cases, which were divided in three groups. Group I for Endonasal Endoscopic Dacryocystorhinostomy with Silicon stent, and Group II for Endonasal Endoscopic Dacryocystorhinostomy without Silicon stent and Group III for conventional (external) DCR. Detailed pre-operative clinical examination was done by Otorhinolaryngologist and Ophthalmologist including regurgitation testing, lacrimal syringing and probing.

RESULTS

In the study, 86.7% cases, had unilateral symptoms. The intra-operative bleeding was more in conventional DCR. Though the success rate of endonasal DCR with silicone stent is better than endonasal DCR without stent and external DCR, these results are not statistically significant ($p=0.5$).

CONCLUSION

Successful primary Endonasal Endoscopic Dacryocystorhinostomy (EN-DCR) seems to have a significant positive impact on the patients' symptoms as assessed by NLDOS and quality of life (QoL) as assessed by GBI score (Glasgow Benefit Inventory score).

Early detection of Twin Chorionicity and Pregnancy Outcomes

D Marawi, L Rajoria, J Vyas, A Bansal, P Bagotia, S Barar, B S Meena

Department of Obstetrics and Gynecology, S M S Medical College and Associated Group of Hospitals, Jaipur

INTRODUCTION

A twin pregnancy can be categorized in dizygotic and monozygotic twin, non-identical or dizygotic twins comes from two eggs that are fertilised by two different sperms these twins always have their own placenta and grow in separate amniotic sacs. The purpose of study was to assess the influence of chorionicity in twin pregnancy on maternal and fetal outcome and to foreground the importance of early ante-natal registration and first trimester ultrasonography and so forth plan the management of twin pregnancy depending on the chorionicity.

METHODS

This study was hospital based prospective study including 200 twin pregnancies registered in first trimester after applying exclusion criteria. Women were followed till term. Perinatal outcome obtained in terms of birth weight, APGAR score, NICU admissions, weight discordance, still birth. Statistical analysis was done using chi-square test, t-test and $p < 0.05$ considered as statistically significant.

RESULTS

Among 200 twin pregnancy included in the study, 57 (28.50%) were monozygotic and 143 (71.50%) were dizygotic. Mean gestational age at delivery was 33.07 weeks in monozygotic lower than dizygotic ($p < 0.001$). Mean birth weight in monozygotic was 2.14 kg higher than dizygotic ($p < 0.001$). Similarly, lower mean APGAR (5.27 v/s 6.55) and higher NICU admissions (19% v/s 12.25%) among the monozygotic twins compared to dizygotic twins. Weight discordance between 1st and 2nd twin was observed more in monozygotic twins (26.32% v/s 16.78%, $p = 0.125$). Perinatal mortality in monozygotic was much higher than dizygotic twins (29.04% v/s 4.2%). No significant difference was found in maternal complications.

CONCLUSION

Early diagnosis of chorionicity, regular antenatal checkups and timely intervention during the intra-partum period by trained obstetricians helps improving the fetal outcomes especially in monozygotic pregnancies.

A Randomized Double Blind Controlled Study on Efficacy of Intralesional Mumps, Measles and Rubella Vaccine in the Treatment of Cutaneous Warts

Chesta Agrawal

Department of Dermatology, R N T Medical College and Associated Group of Hospitals, Udaipur.

INTRODUCTION

Recalcitrant warts represent a frustrating challenge for both patients and physicians. Although many destructive and immunotherapeutic modalities are available for treatment of warts, an ideal, universally effective approach has not been explored till date. Recently intralesional immunotherapy has shown promising efficacy in the treatment of warts. Hence, the aim of the study was to evaluate the efficacy of intralesional Mumps, Measles and Rubella (MMR) vaccine in a double blind placebo control manner in the treatment of cutaneous warts.

METHODS

In this randomized, double blind study, patients with single to multiple, cutaneous warts of more than one year duration were included. They were randomized into groups receiving intralesional MMR vaccine (n=30) and intralesional saline (n=30). In both groups patients were directly injected, without a pre-sensitization skin test, 0.3 ml of respective drug in the largest wart at 3 week intervals until complete clearance or for maximum of 3 treatments. Follow up was made every month for 6 months to detect any recurrence by different investigator who was unaware to the therapy given.

RESULTS

Out of sixty six patients, sixty patients completed the study. Six patients discontinued for various reasons. There were significant difference in clearance rate and recurrences in both the group. 18 patients (60%) receiving intralesional MMR had complete clearance compared to 7 patients (23%) in control group. Only 5 patients (16%) had recurrence in MMR group as compared to 10 patients (33%) in control group. Side effects were mild and comparable in both the groups in the form of pain during injection, erythema, and edema at the site of injection.

CONCLUSION

Intralesional MMR injections are significantly more effective than intralesional saline for treatment of cutaneous warts.

Neurodevelopmental Outcomes and Neuroimaging in Neonates with Hypoglycemia

Nitesh Melana, R K Soni

Department of Paediatrics, S P Medical College and Associated Group of Hospitals, Bikaner

INTRODUCTION

Neonatal hypoglycemia is a common problem requiring medical attention in newborn and a leading cause of preventable brain damage, physical and mental handicap and early deaths among infants. The main objective of the present study was to assess the prevalence of neuro-developmental abnormalities and its correlation with MRI findings in neonates with hypoglycemia.

METHODS

This was a prospective study on 39 neonates with hypoglycemia who were admitted to NICU from November 2015 to December 2016 and were fulfilling the inclusion criteria. MRI scan was done at 4 weeks and neuro-developmental assessments were done on follow up at 3 and 6 months by DDST II method.

RESULTS

Out of 39 neonates, 69.2 % [n=27] had abnormal MRI findings with parieto-occipital cortex as the most commonly affected area of the brain. The prevalence of abnormal neuro-developmental outcome according to DDST II method was 71.7% [n=28] at 3 months and 66.6% [n=26] at 6 months. Factors such as early onset, symptoms, longer duration of hypoglycemia, minimum blood glucose level, number of readings <25mg/dl, abnormal MRI and maximum GIR were significantly associated with adverse outcome.

CONCLUSION

Neonatal hypoglycemia is associated with long-term neuro-developmental handicaps. Occipital and parietal lobes are most severely affected regions on neuro-imaging. Mental and psychomotor developmental indices of the children who suffered from hypoglycemia during newborn period are significantly low. Hence, early diagnosis and treatment of neonatal hypoglycemia is mandatory to prevent neurological sequelae.

Evaluation of Serum Creatine Kinase Muscle Brain Fraction and Lactate Dehydrogenase as Markers of Perinatal Asphyxia in Term Neonates

Kuldeep Meena, R K Soni

Department of Paediatrics, S P Medical College and Associated Group of Hospitals, Bikaner

INTRODUCTION

Perinatal asphyxia contributes significantly to neonatal morbidity and mortality. Objective of study was to find out, if serum (CK-MB) and Lactate dehydrogenase (LDH) can be used as markers of perinatal asphyxia in term neonates

METHODS

A hospital based prospective study conducted in Neonatal Intensive Care Unit (NICU) and Post-natal wards of P B M Hospital, Bikaner. Total 100 newborns (50 cases and 50 controls) having perinatal asphyxia were included in the study. The clinical and neurological examination was done for all the neonates included in the study. Blood samples were drawn at age of 8 ± 2 hours for CK-MB and at 72 ± 2 hours for lactate dehydrogenase (LDH) in both cases and controls. A serum creatinine kinase (CK-MB) value >92.6 U/L at 8 hours and LDH value >580 U/L at 72 hours were taken as the cut-off level.

RESULTS

Among the 50 neonates in case group, 30 (60%) had CK-MB levels <92.6 U/L and 20 (40%) had CK-MB levels >92.6 U/L while none of the neonate in control group had CK-MB levels >92.6 U/L. In the case group, 22 (44%) had LDH levels <580 U/L and 28 (56%) had LDH levels >580 U/L while 49 (98%) had LDH levels <580 U/L and only 1 (2%) had level >580 U/L in control group. The cut-off CK-MB value of >92.6 U/L has 40% sensitivity and 100% specificity with a positive predictive value of 100% and negative predictive value of 62.50%. The cut-off LDH value of >580 U/L has 60% sensitivity and 90% specificity with a positive predictive value of 93.33% and negative predictive value of 67.57%. The correlation of cut-off CK-MB level of 92.6 U/L and cut-off LDH level of 580 U/L with the severity of HIE is significant. The mean values of CK-MB and LDH level is significantly higher in cases died due to perinatal asphyxia as compared to survived cases ($p < 0.001$).

CONCLUSION

Estimation of CK-MB at 8 ± 2 hours of life and LDH at 72 ± 2 hours of life can help to distinguish an asphyxiated from a non asphyxiated term neonate in correlation with history and clinical features in the neonate.

Electrocardiogram and Echocardiographic Findings in Chronic Obstructive Pulmonary Disease and its Correlation with Right Ventricular Dysfunction

Vinod Singh Jatav, S R Meena

Department of Medicine, Government Medical College and Associated Group of Hospitals, Kota.

INTRODUCTION

COPD is a powerful and independent risk factor for cardiovascular morbidity and mortality which includes right ventricular (RV) dysfunction and cor-pulmonale secondary to pulmonary arterial hypertension (PAH), left ventricular dysfunction. The purpose of this study was to find out correlation between RVD and ECG, Echocardiographic findings in COPD and to diagnose correlation between right ventricular dysfunction and disease severity.

METHODS

100 patients of COPD fulfilling the inclusion criteria attending OPD/wards of Government Medical College and Associated Group of Hospitals, Kota were recruited. They were staged by pulmonary function test (PFT) and evaluated by electrocardiography and echocardiography. Statistical analysis of correlation was done with chi square test and statistical significance was taken as $p < 0.05$.

RESULTS

Mean age was 63.18 ± 8.66 years, with male preponderance, male to female ratio (M:F) 6.14:1. Mean duration of disease was 7.58 ± 2.92 years, mean exposure to smoking of 25.06 pack years. Most common ECG finding was right axis deviation (RAD) which was present in 60% cases. Other ECG findings are P pulmonale (45%), incomplete right bundle branch block (RBBB) (14%), PPRW (35%), right ventricular hypertrophy (RVH) (53%), low voltage complex (25%). All ECG findings except incomplete RBBB significantly correlated with disease severity ('p' value < 0.05). Most common echocardiographic finding was cor pulmonale, which was present in 54% of cases, other echocardiographic findings were pulmonary artery hypertension (PAH) in 53% cases, RA/RV dilatation (37%), RVH (41%), RVSD (16%). Echocardiographic signs of RV dysfunction observed are PAH, cor pulmonale and RVSD which are correlated with the severity of the disease ($p < 0.05$).

CONCLUSION

The occurrence of ECG findings increase as severity of disease increase. It can be inferred that ECG is a useful bedside test to assess the severity of COPD. Echocardiographic examination is reliable in following COPD patients with PAH instead of repeated cardiac catheterization.

Acute Intestinal Obstruction: An Analysis

Harshit Srivastava, Latika Sharma

*Department of General Surgery, Dr S N Medical College
and Associated Group of Hospitals, Jodhpur*

INTRODUCTION

Intestinal obstruction (IO) is defined as a partial or complete interference with the forward flow of small or large intestinal contents. Bowel obstruction is one of the most common causes of acute abdomen and also a common surgical emergency. The aim of this study was to study the etiology, clinical presentation, role of imaging studies, association of deranged renal function tests (RFT) and laboratory data (hemoglobin \leq 10 gm/dl and leucocytes count $>$ 15,000/mm³) at the time of admission in the prognosis of the patient and modalities of treatment and outcome of patients with acute IO presenting in Jodhpur, Rajasthan.

METHODS

A prospective study was conducted at Mahatma Gandhi Hospital and Mathura Das Mathur Hospital (associated with Dr S N Medical College), Jodhpur. 100 patients with acute IO were admitted and evaluated. Routine blood investigations (hemoglobin, RFT), X-Ray abdomen, USG abdomen and CECT (if required) were done.

RESULTS

A total of 69 male and 31 female patients, presented with acute IO during the study period. The foremost signs and symptoms were abdominal distension (88%), constipation (87%), abdominal pain (81%) and nausea/ vomiting (47%). Adhesions and bands (29%), hernia (13%), neoplasm (9%) and pseudo-obstruction (8%) were the leading causes of intestinal obstruction. Late presentation to hospital, hemoglobin \leq 10 gm/dl, leucocyte (WBC) counts \geq 15000/mm³ and deranged RFT were associated with poor prognosis. The sensitivity of X-ray and USG in our study was 67% and 75% respectively. Most common complication associated was wound infection (17%) followed by paralytic ileus (7%) and respiratory tract infections (6%). Four patients expired before surgery. Post-operative mortality was associated with six patients and was more common in cases which presented with gangrenous bowel.

CONCLUSION

The most common causes of IO in the present study were adhesions and bands, hernia, neoplasm and pseudo-obstruction. Late presentation to hospital, deranged blood investigations and presence of bowel gangrene was associated with higher morbidity and mortality.

Comparison of Preoperative Palonosetron and Dexamethasone in Prevention of Post-Operative Nausea and Vomiting in Middle Ear Surgery

Nikita Baser

*Department of Anesthesia, R N T Medical College
and Associated Group of Hospitals, Udaipur*

INTRODUCTION

Postoperative nausea and vomiting (PONV) is most frequent and most unpleasant adverse outcome of surgery and general anesthesia. PONV is defined as nausea or vomiting occurring within 24 hours of surgery. The present study was undertaken to compare the efficacy of Palonosetron and Dexamethasone for prevention of postoperative nausea and vomiting in middle ear surgeries.

METHODS

This randomized double blind controlled study was conducted on 150 ASA grade I and II patients, aged 18-60 years and scheduled for middle ear surgery. The patients were divided into three groups (50 patients in each group): Group P- Palonosetron 1.5 ml (0.075 mg) as an antiemetic, Group D-Dexamethasone 1.5 ml (6 mg) as an antiemetic, Group N- Normal saline 1.5ml as control. The drug was given according to allocated group along with pre medication. Uniform general anaesthesia was given to all patients. The incidence of nausea and vomiting was noted during the period of 0-8 hours, 8-16 hours and 16-24 hours.

RESULTS

Incidence of post operative nausea was found to be less in group P as compared to group D group and group N in duration of 0-8 hours ($p=0.001$), 8-16 hours ($p=0.008$), 16-24 hours ($p=0.016$) and post operative vomiting was less in group P, in duration of 0-8 hours ($p=0.001$) that was statistically significant. Rescue anti emetic required was less in group P as compare to group D and group N ($p=0.003$). Demographic data and hemodynamic parameters were comparable in all three groups.

CONCLUSION

Preoperative administration of Palonosetron was more effective than Dexamethasone in prevention of postoperative nausea and vomiting in middle ear surgery without any apparent side effects.

A Prospective Comparative Study of Effects on Healing of Chronic Ulcers Using Placental Extract, Collagen Particles and Conventional Dressings

R S Meena, Mahesh Sonwal

Department of General Surgery, Government Medical College and Associated Group of Hospitals, Kota

INTRODUCTION

Chronic ulcers are a drain on health care resources. These ulcers represent a large clinical problem resulting in severe disability and healthcare expenditure. A chronic wound is one that does not proceed through the normal stages of healing over the expected duration of time because of some underlying pathological conditions. In recent years several new treatment strategies emerge to stimulate wound healing. New advance topical dressings are emerging and biological dressings, collagen granule dressings has advantage over conventional dressing in terms of non-immunogenic, non-pyrogenic, being natural, easy application and decreased days of healing. Looking to the beneficial qualities of collagen and placental extract, study was planned to use and see the effects of these substances in chronic ulcers to promote healing.

METHODS

A prospective study was done between December 2016 to January 2017 in which 50 patients who presented with deep wounds were chosen by random sampling technique, and were grouped into 2 groups study group consisting of 30 patient (20 patients in placental group and 10 patients in collagen group) and 20 patients in control group (conventional).

RESULTS

In 10-20% complete healing in study group at first week and > 50% patients showing complete healing after completion of 2 week treatment. After 12 week treatment with placental extract, collagen particles and conventional dressings all the ulcers treated with collagen particles and placental extract healed completely and only 12 (60%) show complete healing with conventional dressings. Eight (40%) ulcers were still in the stage of near complete healing conventional dressing group. The study showed that placental extract and collagen dressing enhances wound healing significantly. There is no major difference in the healing response of placental extract and collagen particles.

CONCLUSION

Collagen granules and placental extract showed faster and better healing rates than conventional treatment.

Anxiety and Depression in Chronic Obstructive Pulmonary Disease and its Relationship with Quality of Sleep

Laxminarayan Meena

Department of Respiratory Medicine, S M S Medical College and Associated Group of Hospitals, Jaipur

INTRODUCTION

Chronic obstructive pulmonary disease (COPD) is often associated with multiple extra pulmonary co-morbidities including neuropsychiatric illnesses. The purpose of this study was to determine proportion of anxiety and depression and its relationship with quality of sleep in stable COPD patients and its relationship with associated anxiety and depression.

METHODS

This prospective cross sectional study was carried out on 100 consecutive clinically stable COPD patients during their inpatient department visit at Institute of Respiratory Disease, SMS Medical College and Associated Group of Hospitals, Jaipur between May 2015 to May 2016. Patient previously or freshly diagnosed as COPD were included in the study. Patients with history of acute exacerbation of COPD in past 4 weeks, history of intake of anti depressants or anti anxiety drugs, history of any neuropsychiatric and chronic systemic illness like diabetes mellitus and coronary artery disease, renal or hepatic disease were excluded from the study. All cases underwent clinical evaluation, spirometry, hindi translations of PHQ-9 (patient health questionnaire), PSQI (pittsburgh sleep quality index) and BAI (beck anxiety inventory) questionnaire.

RESULTS

The mean age of patients was 61.79±9.14 years and all were males. Amongst 76% had sleep disturbance, 77% had depression and 100 % had anxiety. Poor quality of sleep with PQSI>5 (n=76) was significantly associated with depression seen in 63% cases (p value 0.001) and anxiety seen in 74% cases (p value 0.046). Sleep disturbance significantly correlated with anxiety, depression and higher age group. However, it was not found to be associated with severity of COPD, living status (p value 0.805) or employment status (p value 0.927).

CONCLUSION

COPD was associated with co-morbidities such as anxiety, depression and sleep disturbance. Thus, management of COPD should include the management of these co morbidities.

Osteoporosis in Patients with Chronic Obstructive Pulmonary Disease

Vinod Sharma

Department of Respiratory Medicine, S M S Medical College and Associated Group of Hospitals, Jaipur

INTRODUCTION

Osteoporosis is one of the extrapulmonary effects of Chronic Obstructive Pulmonary Disease (COPD). Osteoporosis is characterized by low bone mineral density (BMD). Present study was conducted to determine the proportion of osteoporosis among study population and association between bone mineral density and severity of COPD and body mass index.

METHODS

In the study, 100 COPD patients were included. Diagnosis and severity of COPD was made according to the GOLD guidelines. Anthropometric measurements were taken and BMI was calculated. BMD (at the lumbar spine and at the femoral neck) was performed using dual energy X-ray absorptiometry (DEXA). BMD was expressed in g/cm^2 and standardized T-score and Z-score.

RESULTS

The increase in severity of COPD leads to the decrease in average values of BMD (Lumbar spine: 0.769 ± 0.21 $p=0.012$, Femoral neck: 0.698 ± 0.12 $p=0.013$) as well as T-score (Lumbar spine: -2.81 ± 1.96 $p=0.005$, Femoral neck: -2.09 ± 0.92 $p=0.022$) and Z-score. Also, the decrease in BMI leads to the decrease in average values of BMD (Lumbar spine $p=0.019$, Femoral neck $p=0.0004$), T-score (Lumbar spine $p=0.013$, Femoral neck $p=0.008$) and Z-score and increase of total osteoporosis. Patients with severe COPD and lower BMI have lower BMD, T score and Z-score and more frequently have osteoporosis.

CONCLUSION

The measurement of Bone Mineral Density parameters cannot be ignored in patient with COPD. Detection of osteoporosis and osteopenia and its correlation can be used as an effective tool in pulmonary rehabilitation program for better management of COPD patients.

Morbidity and Mortality Related to Ileostomy/Colostomy

Jitendra Kumar Gupta, Ashok Parmar

Department of General Surgery, S P Medical College and Associated Group of Hospitals, Bikaner.

INTRODUCTION

Ileostomy/Colostomy is a life-saving surgery that enables a person to enjoy a full range of activities, including travelling, sports, family life and work, even though they have a stoma and may wear a pouching system. The purpose of the study was to assess morbidity and mortality related to ileostomy/colostomy

METHODS

It is a prospective and retrospective hospital based study conducted from August 2015 to July 2016. A total of 50 patients reporting to the Department of General Surgery, S P Medical College and Associated group of Hospitals, Bikaner within the study duration and eligible as per inclusion criteria were included in this study.

RESULTS

The duration of surgery varied from 30 to 80 minutes with a mean of 50.6 ± 11 minutes. The main causes for ileostomy/colostomy were cancer 54%, perforation (non traumatic) 28% and traumatic 18%. Overall, 19 (38%) patients developed complications post closure of ileostomy or colostomy. Medical complications accounted for a large proportion of complications ($n=8$), while major ($n=6$) and minor complications ($n=5$) were present. Overall, 5 patients developed minor complications post closure of ileostomy/colostomy, wound infection accounted for a large proportion (55.56%) of complications. Overall, 8 patients developed medical complications post closure of stoma, Pneumonia accounted for a large proportion (50%) of complications, Urinary Tract Infection (UTI) (25%) and deep vein thrombosis (DVT) (25%) were present. Overall, 6 patients developed minor complications post closure of ileostomy, anastomotic leak accounted for a large proportion (33.3%) of complications, fistula (16.6%), bowel obstruction (16.6%), incisional hernia (16.6%) and intra-abdominal abscess (16.6%) were present.

CONCLUSION

Ileostomy/Colostomy is effective and feasible as a diversion procedure and has reduced morbidity and complication rates.

The Value of Doppler Assessment of the Uteroplacental Circulation in Predicting Pre-Eclampsia and Intrauterine Growth Restrictions

Vinod Nain, Sunita Maheshwari

Department of Obstetrics and Gynecology, R N T Medical College and Associated Group of Hospitals, Udaipur

INTRODUCTION

Despite recent advances in antenatal care, preeclampsia remains the major cause of maternal and perinatal morbidity and mortality. In pregnancies that are complicated by hypertension and IUGR, uteroplacental blood flow decreases which is reflected in Doppler indices. The purpose of this study was to assess the doppler data finding in predicting adverse pregnancy outcome like PIH, pre-eclampsia and IUGR and deliver the fetuses already affected with growth restriction, before they have suffered from the effects of hypoxia.

METHODS

100 women with high risk pregnancy between 26-30 weeks of gestation were studied over a period of one year with color Doppler. The outcomes of the pregnancies were evaluated.

RESULTS

Out of 100 patients, 22 had abnormal doppler, with 14 having uterine artery and 10 having umbilical artery abnormality. Out of the 22 patients, 4 developed pre-eclampsia with a sensitivity of 60%, 40%, and 60% for uterine artery S/D ratio, resistance index (RI) and persistent diastolic notch respectively, the specificity was 93% to 94% for all indices. The positive predictive value was 33.3%, 28.6%, and 37.5% for S/D ratio, RI and diastolic notch respectively. Of the 10 patients with abnormal umbilical artery, 2 developed pre-eclampsia. Specificity of 100 % for absent end diastolic flow indicates that umbilical artery Doppler is more predictive than uterine artery Doppler.

CONCLUSION

Abnormal doppler is associated with poor pregnancy outcomes and it may be used for the prediction of pre-eclampsia and IUGR to reduce the maternal and perinatal morbidity and mortality.

Study of Clinical Profile of Infantile Tremor Syndrome and Its Correlation with Serum Vitamin B₁₂ Level

Dhaval Bhatt, R K Gulati

Department of Pediatrics, Government Medical College and Associated Group of Hospitals, Kota

INTRODUCTION

Infantile tremor syndrome (ITS) is a clinical syndrome characterized by acute or gradual onset with mental and psychomotor changes, pigmentary disturbances of hair and skin, pallor and tremors. As vitamin B₁₂ is required for psychomotor development and cell maturation in hematopoiesis, vitamin B₁₂ deficiency lead to hematological and neurological manifestations. The purpose of this study was to study clinical profile of infantile tremor syndrome and its association with serum vitamin B₁₂ level.

METHODS

A prospective study in which 40 children presenting with clinical features of infantile tremor syndrome were included. Children present with other comorbid neurological conditions were excluded. A detailed history was taken. Complete blood count with blood indices, blood smear and serum vitamin B₁₂ level were assessed. Association of ITS with serum vitamin B₁₂ level was calculated.

RESULTS

Total 40 cases between 6-24 months of age were enrolled. Majority 77.5% cases were in 6-12 months of age with male predominance. Sex ratio was 2.3: 1. Mean age is 10.8 months. All cases had pallor, skin hyperpigmentation and psychomotor changes and apathy developmental abnormality (regression or stasis) was present in 90% of patients. Tremor was present in 37.5%, hepatomegaly and splenomegaly was present in 62.5% and 20% respectively. Faulty feeding was found in 82.5% cases (p<0.05). All children had low hemoglobin level. 60% children were moderately anemic, while 27.5% had severe anemia. Most common type of RBC in peripheral smear was microcytic (p<0.05). Malnutrition was most common co-morbidity (67.5%) followed by respiratory infections (57.5%). Vitamin B₁₂ deficiency was present in significant number of cases (77.5%).

CONCLUSION

Vitamin B₁₂ deficiency was present in significant number of cases suggesting that vitamin B₁₂ supplementation is required during infancy to prevent haematological as well as non haematological manifestations of vitamin B₁₂ deficiency.

Clinical Study of Diabetic Foot with Different Treatment Modalities

Kartik Thurwal, Ashok Parmar

Department of General Surgery, S P Medical College and Associated Group of Hospitals, Bikaner.

INTRODUCTION

Diabetes is a chronic disease. Diabetes the global epidemic is rapidly increasing at an alarming rate. Developing countries like India will harbour majority of diabetic people by the year 2030. Diabetic foot are complex, chronic wounds, which have a major long-term impact on the morbidity, mortality and quality of patients' lives. The purpose of the study was to study diabetic foot with different treatment modalities.

METHODS

The study was a hospital based prospective study conducted from August 2015 to July 2016. A total of 50 patients reporting to the Department of General Surgery, S P Medical College and Associated Group of Hospitals, Bikaner were included in the study.

RESULTS

In present study, maximum 52% patients belonged to age group was 51-70 years followed by 13 (26%) in 31-50 years age group. Most common complication of diabetes was cellulitis (32%) and least common complication was abscess (18%). Most common lesion was right dorsum of foot 11 (22%) followed by left toe 7 (14%). Maximum 30% patients were treated through debridement of diabetic foot whereas 20% patients received slough excision, dressing and skin graft and toe amputation as treatment modality. 18% patients were treated by incision and drainage. Amputation was the least used treatment modality.

CONCLUSION

Maximum numbers of patients were treated with debridement and amputation was least used treatment modality.

A Comparative Study in the Use of Mechanical Microdebrider and Conventional Instruments in Functional Endoscopic Sinus Surgery

B K Singh, Jacob Antony Thoppil

Department of Otorhinolaryngology, J L N Medical College and Associated Group of Hospitals, Ajmer

INTRODUCTION

Functional Endoscopic Sinus Surgery (FESS) has been used for more than 20 years in the treatment of sinus diseases. The purpose of the study was to compare the intra-operative results (blood loss, time of surgery) and post-operative results of microdebrider assisted sinus surgery and conventional endoscopic sinus surgery.

METHODS

A prospective randomized single-blinded clinical study was performed (October 2014-June 2016) on 72 patients. Patients were divided into two groups. Group-1 having 36 patients underwent microdebrider assisted endoscopic polypectomy, Group-2 having 36 patients underwent endoscopic polypectomy with conventional instruments. Intra-operatively the duration of the surgery and blood loss was noted. Patients were discharged on the 2nd day and started on normal saline nasal douches. Cases were reviewed after 1 week, 3rd month, 6th month follow up for recurrence of polyps, discharge, scarring, crusting and symptomatic improvement using the Lund-Mackay scoring system.

RESULTS

Microdebrider assisted surgeries have lesser average intraoperative bleeding (101.33 ml versus 133 ml). Average duration of surgery is lesser for microdebrider assisted surgeries as compared to that of surgeries using conventional instruments (55 min versus 70 min). Microdebrider gives better postoperative endoscopic and symptom scores, combine cutting and suction in a single tool, thus enabling accurate and precise tissue removal.

CONCLUSION

Microdebrider assisted endoscopic sinus surgery is more effective and helpful as compared to conventional endoscopic sinus surgery. It is a prerequisite for higher success rates in functional endoscopic sinus surgery. The study re-emphasises the utility of the microdebrider to young learning FESS surgeons.

Echocardiographic Evaluation of Diastolic Dysfunction in Type 2 Diabetes Mellitus and its Correlation to Microvascular Complications

Jitendra Kumar Saini, Rajesh Jain

Department of Medicine, JLN Medical College and Associated Group of Hospitals, Ajmer

INTRODUCTION

In Diabetic patients, incidence of heart failure is high, even in the absence of hypertension and coronary artery disease. Although heart disease in Diabetes is primarily due to macrovascular origin, but growing evidence from different observations suggests the possibility of microvascular pathogenesis also. The purpose of this study was to assess the diastolic dysfunction in asymptomatic, normotensive type 2 diabetic patients and to correlate it with the microvascular complications (nephropathy and retinopathy).

METHODS

The study was carried out at JLN Medical College and Associated Group of Hospitals, Ajmer, 60 type 2 Diabetic patients (34 male and 26 female) were enrolled in this cross-sectional study. Diabetic retinopathy evaluation was done by using the direct ophthalmoscope. Diabetic nephropathy was assessed by a 24 hour urine albumin measurement. 2D-echocardiography was done to assess left ventricular diastolic dysfunction.

RESULTS

Maximum numbers of patients were in the age group 50 -59 years (18 patients). The mean age in the study was 49.3 ± 10.4 . The overall prevalence of retinopathy in the study was 51.6% (31) and that of nephropathy was 66.67% (40). 34 subjects had evidence for diastolic dysfunction. Out of 31 patients with retinopathy, 26 (83.8%) had diastolic dysfunction (p value < 0.001) and among 40 patients with nephropathy, 32 (80%) had diastolic dysfunction (p value < 0.001).

CONCLUSION

Diastolic dysfunction is strongly associated with retinopathy and nephropathy and it strongly supports microvascular origin of pathogenesis of diastolic dysfunction. Hence, cardiac disease in diabetes is not only a macrovascular disease; microvascular changes also play a role in pathogenesis.

Correlation of Quantitative C-Reactive Protein with CD4 Count in Patients of HIV on Anti-retroviral therapy

Alok Gahlot, Parmendra Sirohi

Department of Medicine, S P Medical College and Associated Group of Hospitals, Bikaner

INTRODUCTION

Infection in people living with HIV reflects the immune suppression of the host. Hence, C-reactive protein (CRP) can be used as a marker of degree of immune suppression. CRP is produced as a result of the opportunistic infection; a decreased level of CRP is thus an indicator of good treatment response to the underlying infection. The present study aimed to evaluate correlation as well as association between CD4 count and CRP level in HIV/AIDS.

METHODS

The present study was a cross sectional hospital based study conducted over a period of twelve months from November 2016 to October 2016 at anti-retroviral therapy (ART) centre at S P Medical College and Associated Group of Hospitals, Bikaner. Out of 100 HIV patients on ART, 50 were symptomatic and remaining 50 were asymptomatic which were taken as control.

RESULTS

Maximum number of participants in both groups were males, married and between age group of 31-40 years belonging to the low socioeconomic status, and had history of heterosexual contacts. Mean duration since ART started was 2-5 years in 50% cases and 52% of controls, respectively. In our study 38% of the study group patients had CRP >20 mg/l whereas 88% of the control subjects had CRP of <6mg/l. 46% of the study subjects had CD4 counts less than 200 as compared to just 4% in the control group. CRP level was significantly higher in study group and count was higher in control group. Highest CRP level found for TB followed by oral candidiasis, lower respiratory tract infections (LRTI) and diarrhoea.

CONCLUSION

CRP is an excellent predictor of opportunistic infections risk in HIV patients. Therefore, the additional cost of doing hsCRP assay in all newly detected patients would be justifiable.

Study of Etiological Factors for Prolonged Unconjugated Jaundice in Newborn

Murli Dhar Yadav, J N Sharma

Department of Pediatrics, S M S Medical College and Associated Group of Hospitals, Jaipur

INTRODUCTION

Prolonged unconjugated jaundice (PUJ) is the more common form of prolonged jaundice (PJ). Even though many etiological causes have been described as common causes of PUJ, the relative contribution of various causes is not well documented in the literature. The aim of this study was to study the etiological factors of prolonged unconjugated jaundice.

METHODS

This prospective descriptive study was carried out in outpatient and inpatient cases in Department of Pediatrics, SMS Medical College and Associated Group of Hospitals, Jaipur. 100 newborn babies with prolonged unconjugated hyperbilirubinemia were enrolled.

RESULTS

Out of 100 babies with prolonged unconjugated jaundice, 88 were term and rest 12 were preterm babies. Onset of jaundice in preterm babies was late compared to term babies which was statistically significant. Out of 88 term babies with PUJ, 83 were AGA (appropriate for gestational age) and 5 were SGA (small for gestational age). Breast milk jaundice (66/100, 60 term babies 6 preterm babies) was the leading cause of PUJ followed by Rh isoimmunisation (9 cases) and Hypothyroidism (6 cases). Other causes were cephalhematoma (5 cases), ABO incompatibility (3 cases) and sepsis (2 cases) etc.

CONCLUSION

Breast milk jaundice is most common cause of PUJ followed by Rh isoimmunization and Hypothyroidism.

A Study of Prevalence of Obesity and Hypertension in School Going Children

B S Karnawat, Mukesh Kumar Sonkaria, Ashok Soni

Department of Pediatrics J L N Medical College and Associated Group of Hospitals, Ajmer

INTRODUCTION

The crisis of both childhood obesity and elevated blood pressure (BP) is global and is steadily affecting not only affluent countries but also many lower and middle-income countries including India. With globalization bringing more lifestyle modifications, children are exposed to multiple risk factors including obesity, diet, academic stress, lack of physical work apart from hereditary risk factors. The purpose of the study was to study the prevalence of obesity and hypertension in school going children and to determine their association with various demographic variables.

METHODS

A cross-sectional study was carried out over a period from January 2016 to October 2016 among total 1498 school going children of Ajmer belonging to the age group of 8 to 18 years of both genders.

RESULTS

Over all prevalence of obesity and hypertension in children was 7.3 %, 4.27% respectively. Both were higher in girls ($p \leq 0.05$) as compared to boys. Hypertension was more common in overweight and obese children ($p \leq 0.05$). Prevalence of hypertension, overweight and obesity was higher in upper and middle socioeconomic class as compared to lower class ($p \leq 0.05$). Also risk factors like sedentary life style and family history were associated with obesity and hypertension ($p \leq 0.05$).

CONCLUSION

Routine use of BMI estimation and BP measurement of school going children should be done by medical professionals, so that these ailments and family and personal factors contributing to these problems can be recognized early.

Prospective Study of Post-operative Sensorineural Hearing Loss after Middle Ear Surgery

Ritu Sehra, P C Verma

Department of Otorhinolaryngology, J L N Medical College and Associated Group of Hospitals, Ajmer

INTRODUCTION

Chronic suppurative otitis media (CSOM) is worldly prevalent disease with otorrhoea, hearing loss causing psychological trauma and financial burden to the society. Surgery is its definite management. Often patients develop sensorineural hearing loss after middle ear surgery. The purpose of this study was to compare pre and post operative bone conduction threshold after various middle ear surgeries.

METHODS

A prospective study was conducted on 90 patients who underwent middle ear surgery, equally divided in 3 groups (Tympanoplasty, MICT-I and MRM (Modified Radical Mastoidectomy). Demographic and clinical data was collected including age, sex, duration of discharge and hearing loss. Pre operative and post operative (after 3 months) bone conduction thresholds were compared. Duration of surgery, ossicular and middle ear status and drilling time noted. Results were analyzed statistically.

RESULTS

Preoperative and post operative bone conduction was noted in 60 patients undergone drilling procedure, and non significant worsening of bone conduction threshold was found in patients in whom drilling was done for more than 30 minutes, duration of ear discharge was more than 10 years, mastoid was sclerosed and cholesteatoma found during surgery. However, statistically significant ($p < .05$), worsening of bone conduction threshold was found in MRM group at 2000 Hz and 4000 Hz, which was correlated with duration and pathology of disease, mastoid sclerosis and duration of drilling.

CONCLUSION

Middle ear surgery in chronic otitis media in majority of patients does not affect bone conduction threshold, except in MRM at higher frequencies.

Surgical Management of Parotid Neoplasms with Emphasis on Quality of Life of Patients: A Prospective study

Vipul Kumar Chaudhary, P C Verma

Department of Otorhinolaryngology J L N Medical College and Associated Group of Hospitals, Ajmer

INTRODUCTION

Parotid tumours are not uncommon. The management is surgical for benign and malignant parotid neoplasm. Due to the location of parotid gland and its intricate relationship with facial nerve, cosmetic and functional outcomes after parotid surgery are extremely important. Objectives of the study were to analyse surgical methods of identification of facial nerve and its branching pattern with emphasis on detection of post-operative complications and quality of life in patients undergoing surgery for parotid neoplasm.

METHODS

A prospective study was conducted on 36 patients of parotid swelling. Out of those 30 were benign and 6 malignant. Facial nerve and branches were identified intra-operatively. Post operative assessment of facial nerve was done using Post-parotidectomy Facial Nerve Grading System (PPFNGS). The general Quality-of-Life (QOL) assessment was based on both the global health status and global QOL scales of the European Organisation for Research and Treatment of Cancer (EORTC) Quality-of-Life Questionnaire. Symptom-specific QOL was assessed with the Parotidectomy Outcome Inventory-8 (POI-8). Aesthetic outcome was evaluated with an ordinal scale.

RESULTS

Posterior belly of digastric muscle and tragal pointer were the commonest landmark used for facial nerve identification. The most common facial nerve branching pattern was type 1. Temporary facial nerve dysfunction was present in 10 (27.78%) patients with marginal mandibular branch most commonly involved. For aesthetic outcome the mode was 0 (46.67%, very good) and the median was 1 (good) on the ordinal scale. A statistically significant difference is noted between superficial parotidectomy and total Parotidectomy for cosmetic outcome and sensory impairment.

CONCLUSION

Modification of incision and use of Superficial musculoaponeurotic system (SMAS) and SCM flaps helps in prevention of Frey's syndrome and improves aesthetic results and Quality-of-Life of patients.

The Effect of Addition of Low Dose of Midazolam to a Mixture of Low Dose Morphine and Hyperbaric Bupivacaine in Parturient Undergoing Painless Labour

Chetan Shukla, Badal Singh Khangarot,

Department of Anaesthesiology, Government Medical College and Associated Group of Hospitals, Kota

INTRODUCTION

Epidural analgesia for labour pain is standard in high- resource countries. Intrathecal local anaesthetics provide good analgesia, but duration of analgesia and the potential impact on ambulation is of concern. Intrathecal midazolam has been introduced as an adjunct to analgesics. The study was conducted to assess the efficacy, safety, duration of analgesia and effect on ambulation produced by intrathecal midazolam adjunct to morphine for labour analgesia.

METHODS

The study is a randomized clinical trial and 60 parturient were included in the study. The two groups were matched for age, cervical dilation gravid, gestational age and other demographic characteristics. Combination of Bupivacaine 2.5 mg, Morphine 200 µg and Midazolam 1 mg administered intrathecally to experimental group (BMM) and compared to Bupivacaine 2.5 mg and morphine 200 µg group (BM). Duration of analgesia and effect on ambulation measured and recorded. Pain ratings, blood pressure, nausea, vomiting, pruritus, headaches and foetal bradycardia were also recorded.

RESULTS

No significant adverse effect was seen in both groups including decrease in APGAR score. Duration of analgesia was 285.60+10.76 minutes in BM group and 402.80+11.72 minutes in BMM group which was significantly different (p value <0.001). The administration of spinal analgesia had no effect on ambulation in 24 parturient in BMM group and 21 parturient in BM group, a mild effect in 06 parturient in BM group and 09 parturient in BMM group was observed. Intrathecal analgesia did not severely limit ambulation in any of the patients.

CONCLUSION

Intrathecal midazolam as an adjunct to opioid in low dose intrathecal analgesia could significantly enhance duration of analgesia for labouring patients in low-resource settings without limiting ambulation and other significant side effect.

Comparison of Accuracy of APACHE IV and SAPS II Scoring Systems in Predicting Outcome of Organophosphate Intoxicated Patients Admitted in Intensive Care Units : A Prospective Study

Rupesh Kumar Gupta, U D Sharma

Department of Anaesthesiology, Dr S N Medical College and Associated Group of Hospitals, Jodhpur

INTRODUCTION

A variety of prognostic scoring systems have been continuously developed to predict outcomes in patients with severe illness and to improve resource allocation. Organophosphate poisoning is a major medical problem worldwide with high mortality rate. The aim of the present study was to compare the accuracy of the APACHE IV and SAPS II scoring system in predicting mortality of organophosphate intoxicated patients admitted in ICU.

METHODS

After approval from ethical committee and with informed written consent a total of 76 cases of both sex and age between 18-60 years, admitted in ICU with diagnosis of organophosphate poisoning were included in the study. The APACHE IV and SAPS II score and their predicted mortality rate were calculated for every patient using worst variable within 24 hours of admission in ICU.

RESULTS

A cut off value of SAPS II score 58 or higher was associated with a sensitivity of 78.57% and specificity of 100% for mortality and a cut off value of APACHE IV score 110 or higher was associated with a sensitivity of 78.57% and specificity of 100% for mortality. Mean SAPS II score and mean APACHE IV score was more in non-survivors and was statistically significant revealing that mean SAPS II score and mean APACHE IV score is a significant criteria for survival of patient.

CONCLUSION

Both APACHE IV and SAPS II scoring systems can approximately predict in-hospital mortality of patients admitted in ICU with organophosphate poisoning. APACHE IV score being the better between the two. A cut off score value of 58 or higher for SAPS II and a cut off score value of 110 or higher for APACHE IV calculated during the first 24 hour of admission in ICU gives probably additional reliable prediction of high possibility of death in patients with organophosphate poisoning.

A Clinical Study of Diabetic Foot with Emphasis on its Problems and Management

Ajay Malviya, Lovedeep Singh

Department of General Surgery, Dr S N Medical College and Associated Group of Hospitals, Jodhpur

INTRODUCTION

Diabetic foot is a major source of morbidity and hospitalization in patients of diabetes mellitus affecting almost 15% of them. It can lead to gangrene, amputation, sepsis and even death in absence of necessary care. Peripheral arterial disease, neuropathy and infection are the major risk factors for diabetic foot. The aim of this study was to analyze the clinical profile, problems, complications and effectiveness of various management modalities of patients of diabetic foot.

METHODS

This retrospective and prospective study was conducted on 200 patients of diabetic foot admitted in surgical wards of hospital over a period extending from July 2012 to June 2016. Detailed history, physical examination, laboratory and imaging studies were noted and accordingly patients were classified into categories based on type of lesion i.e. neuropathic, ischemic, mixed and purely infectious grades of ulcer (Grade 0-V), type of management i.e. preventive, conservative, debridement and amputation (major or minor).

RESULTS

A total of 139 male and 61 female patients, presented with diabetic foot during the study period. Toes (41%) and dorsum of foot (34%) were the most frequent sites of diabetic foot ulcer. Most patients (65.5%) of diabetic foot presented within 10 years of diagnosis of diabetes mellitus. Grade II (42.5%) or Grade III lesions (30%) were most frequent. Patients were categorized into neuropathic (35%), ischemic (12.5%), mixed neuroischemic (32%) or purely ischemic categories (20%). 19% of patients could be managed with conventional methods alone while 59.5% of the patients required debridement. Amputation was required in 20 % cases (14% minor and 6.5% major amputation). Grade IV (94.7%) and Grade V (100%) lesions eventually required amputation.

CONCLUSION

Diabetic foot appears to affect elderly male population with long standing history of Diabetes mellitus and negligence. Early aggressive and methodological approach is the gist of management of diabetic foot but loss of limb to amputation in advanced lesions is still a challenge.

Comparative Study of Isolated Abdominal Injury versus Abdominal Injury Associated with Polytrauma

Sanjay Kumar Gurjar, S S Rathore

Department of General Surgery, Dr S N Medical College and Associated Group of Hospitals, Jodhpur

INTRODUCTION

Abdominal trauma is the leading cause of morbidity and mortality in all age groups. Missed intra-abdominal injury is frequent cause of increased morbidity and mortality. If mismanaged, the abdominal injury is often serious threat to life. The purpose of study was to compare isolated abdominal injury versus abdominal injury associated with polytrauma.

METHODS

A prospective study was conducted on patients admitted in surgical units of Dr S N Medical College and Associated Group of Hospitals, Jodhpur from July 2015 to June 2016. Children below age of 12 years and diabetic and cardiac patients were excluded.

RESULTS

Patients between age 20-30 years were most commonly affected in both groups, 19 cases (n=60) in isolated abdominal injury and 31 cases (n=70) in abdominal injury with polytrauma. Males were predominantly involved. Hollow viscus injury (31%) was second common type injury after solid organ injury, followed by non-specific type injury (26.6%) in isolated abdominal injury group whereas in polytrauma group NS (non-specific) type of injury (35.7%) was second most common type of injury followed by hollow viscus injury (10%). In polytrauma group, solid organ injury was most commonly seen with associated chest injury in 25 cases (n=38), followed by extremities injury (10 cases) and 09 cases of associated head trauma. In isolated abdominal injury out of 60 cases, 57 cases survived only 03 cases (5%) expired whereas in polytrauma patients mortality seen in 05 cases (7.1 %).

CONCLUSION

Severity of abdominal injury is more in isolated injury patients however associated polytrauma adversely affects the outcome of injury and increases mortality and morbidity.

Clinico-Radiological Profile in Stone Mine Workers Attending a Tertiary Care Hospital

Sunil Kumar, Anil Saxena

Department of Respiratory Medicine, Government Medical College and Associated Group of Hospitals, Kota

INTRODUCTION

Stone cutting and crushing are common in many parts of India. Silicosis is a chronic lung disease caused by breathing of silica dust and there are many studies supporting this fact. There is a general lack of education and awareness about occupational diseases among workers, employers and even local medical practitioners. The purpose of the study was to analyze clinico-radiological profile of respiratory involvement in stone mines workers with the help of digital chest X ray and Pulmonary Function Test (PFT) changes.

METHODS

This cross sectional study was carried out in Department of Respiratory Medicine, Government Medical College and Associated Group of Hospitals, Kota, during period of one year. Total 250 patients who were working in sand mine were included in the study and their chest radiographs were evaluated as per ILO classification of Radiographs of Pneumoconiosis, under standardized condition. Spirometry test was performed the correlation of its indices with duration of exposure of silica was calculated.

RESULTS

33.2% of the cases were found in the age group 41-50 years and 90% of the cases were males. Chest X rays showed that 45.2 % subjects have evidence of silicosis of which 09 (7.96 %) of them had developed progressive massive fibrosis (PMF). The prevalence of silicosis increased with increasing number of years of work in mines, 100 % of persons developed silicosis who had worked for more than 30 years in stone mines. Stage of silicosis was directly related to years of work in stone mines. Evidence of pulmonary tuberculosis was present in 25 study cases without silicosis, 13 subjects with silicosis. Those patients with silicosis had significantly lower Forced Expiratory Volume (FEV1) in first second, Forced Vital Capacity (FVC), FEV1/FVC values than those with non-silicosis ($p < 0.05$).

CONCLUSION

The workers engaged in stone mining are likely to suffer from silicosis and associated diseases commonly. Awareness of protective standards of the mines to be created among the workers.

Comparison of Prevalence of Fungal Infection in Different Category of Pulmonary Tuberculosis with Normal Population

Mahendra Kumar Nagar, Suman Khangarot

Department of Respiratory Medicine, Government Medical College and Associated Group of Hospitals, Kota

INTRODUCTION

Pulmonary tuberculosis, a chronic destructive lung disease which forms cavities, facilitates the growth of many organisms including fungi by providing plenty of oxygen and necrotic tissue material. Fungal co infection does not respond to antibiotics which could be fatal and often mistaken for recurrence of tuberculosis. The purpose of the study was to find out the prevalence of fungal infections and their species among pulmonary tuberculosis patients.

METHODS

This was a cross sectional study conducted in the Department of Respiratory Medicine, Government Medical College and Associated Group of Hospitals, Kota over a period of one year. A total of 200 cases were taken and divided into four groups with 50 cases in each. In 'group 1' healthy subjects; 'group 2' sputum positive cases of *Mycobacterium tuberculosis*, in 'group 3' Multi Drug Resistance tuberculosis (MDR-TB) cases and in 'group 4' old treated pulmonary TB were taken. Thorough history, physical examination and investigations were done. Fungus was identified by sputum KOH mount and fungal culture on Sabouraud's dextrose agar (SDA) slants with chloramphenicol.

RESULTS

Fungal co-infections were more common in males, malnourished, smoker and alcoholic subjects. Prevalence of fungal infection was 12%, 36%, 52% and 44% in group 1, 2, 3 and 4 respectively. Overall fungal prevalence was 36 % with moulds in 21.5% and filamentous fungi in 14.5%. In moulds *Candida albicans* was most common species (33.3%). Other species were *C. tropicalis* (11%), *C. glabrata* (9.7%) and *Tricospora* (5.5%). In filamentous fungi *Aspergillus fumigates* was most common (13.8%) followed by *A. niger* (11.1%), *A. flavus* (8.3%), *Rhizopus* (2.7%) and *Penicillium* (4.1%). Fungus culture positivity was significantly less in normal cases 'group 1' when compared with 'group 2', 'group 3' and 'group 4' ($p < 0.05$).

CONCLUSION

There is significant co-infection of fungus with *Mycobacterium tuberculosis*. MDR-TB patients carry a higher risk of fungal co-infections, identification of these species is important in selecting the appropriate antifungal agents.

Comparison of Dexmedetomidine and Clonidine added to Hyperbaric Bupivacaine in Spinal Anaesthesia for Vaginal Hysterectomy: A Randomized Double Blinded Study

Dinesh Kumar Rajak, M L Tak,

Department of Anaesthesiology, S N Medical College and Associated Group of Hospitals, Jodhpur

INTRODUCTION

Vaginal hysterectomy is a painful procedure, patient might face post-operative pain. Post-operative pain relief reduces the complications. Various techniques and methods used, in which drug adjuvant like α_2 agonist are used in spinal anaesthesia is best. The study was undertaken to compare Dexmedetomidine and Clonidine as adjuvant in spinal anaesthesia for vaginal hysterectomy for post operative analgesia.

METHODS

After approval from ethical committee and with informed written consent from patients, 90 patients with ASA grading I and II, aged 40-70 years posted for vaginal hysterectomy were randomized in three groups of 30 each. Patients in group N received 15mg 0.5% Bupivacaine heavy and 0.5 ml normal saline, group D Patients received 15mg 0.5% Bupivacaine heavy and Dexmedetomidine 5 μ g and group C patients received 15mg 0.5% Bupivacaine heavy and Clonidine 30 μ g intrathecally. Onset of sensory block and peak level was assessed by pinprick method, motor block was assessed by modified bromage scale and duration of analgesia was assessed by VAS score. Statically analysis done by ANOVA test, Chi Square test and p value less than 0.05 has been considered as significant.

RESULTS

Addition of dexmedetomidine and clonidine does not affect onset of sensory and motor block ($p > 0.05$). Mean duration of analgesia in group D (386.83 \pm 58.43) was higher in comparison to group N (211.1 \pm 30.47) and group C (296.53 \pm 57.19) ($p < 0.05$).

CONCLUSION

Use of low dose Dexmedetomidine as an adjuvant to Bupivacaine in spinal anaesthesia prolongs duration of analgesia in comparison to Clonidine. Onset of sensory and motor blockade, duration of motor block and other side effect was not increased by addition of Dexmedetomidine and Clonidine as an adjuvant in spinal anaesthesia.

Comparison of Prophylactic Infusion of Phenylephrine and Norepinephrine for Prevention of Hypotension in Elective Caesarean Section under Spinal Anaesthesia: A Prospective Randomized Double Blinded Study

Surendra Kumar Jangid, F S Bhati

Department of Anaesthesiology, S N Medical College and Associated Group of Hospitals, Jodhpur

INTRODUCTION

Spinal anesthesia in cesarean section (LSCS) leads to various adverse effects e.g. hypotension, nausea, vomiting, foetal hypoxia etc. A variety of methods have been used to prevent spinal hypotension, Phenylephrine is the vasopressor of choice but it decreases in heart rate (HR) and cardiac output (COP) in parturients, which may be harmful to fetus. The purpose of this study was to compare efficacy of norepinephrine and phenylephrine for spinal hypotension in caesarean section in terms of maintaining mean arterial pressure (MAP), CO, HR and fetal outcome.

METHODS

After ethical committee approval and consent of 80 healthy patients ASA grade 1 and 2 between 18-40 years old, undergone elective LSCS under spinal anesthesia. They were randomized into two groups to maintain mean arterial pressure with a computer-controlled infusion of norepinephrine 5 μ g/ml or phenylephrine 100 μ g/ml.

RESULTS

COP was greater in the norepinephrine group in comparison to phenylephrine group from 1 min to 9min $p < 0.05$, and HR greater in the norepinephrine group from 1 to 12 min in comparison to phenylephrine group $p < 0.05$. In norepinephrine group HR, CO and total volume of infusion required to maintain blood pressure were greater, systemic vascular resistance (SVR) was lower, MAP, SV and neonatal outcome were similar between both the groups.

CONCLUSION

Norepinephrine had similar efficacy for maintaining mean arterial pressure during spinal anaesthesia for caesarean section but was associated with greater HR and COP and lower Systemic vascular resistance (SVR) in comparison to phenylephrine. So prophylactic infusion of norepinephrine is better option than phenylephrine for prevention of spinal hypotension in caesarean section.

Comparative Study of Surgical Management of Fracture Distal Humerus by Using Triceps Reflecting Anconeus Pedicle Approach and Olecronan Osteotomy Approach

Devendra Tatarwa, A K Tiwari

Department of Orthopedics, Government Medical College and Associated Group of Hospitals, Kota.

INTRODUCTION

Intra articular fractures of distal humerus constitute 0.5%-7% of all fractures. A painless, stable and mobile elbow joint is desired as it allows the hand to conduct the activities of daily living. A perfect or near perfect reduction requires an approach which can help in visualization and reduction of the articular surface.

METHODS

This study was conducted in the Department of Orthopedics, Government Medical College and Associated Group of Hospitals, Kota from August 2014 to June 2016. Thirty three (33) patients were admitted with closed fractures of distal humerus. 17 patients were operated by using triceps reflecting anconeus pedicle approach (TRAP) and 16 patients by using olecronan osteotomy approach. At every follow up, functional assessment was done by MEPI score as well as radiological assessment by X-rays.

RESULTS

Out of 33 patients, two patients were lost in follow up. In TRAP approach (16 patients) 11 patients (68.75%) had either excellent or good results, mean loss of extension was 16.25% and three patients had extensor weakness. In olecronan osteotomy approach (15 patients), 11 patients (73.26%) had either excellent or good results, mean loss of extension was 12%, three patients had implant protrusion and one had union at osteotomy site.

CONCLUSION

Olecronan osteotomy is associated with prominence /migration of hardware on displacement /non-union of osteotomy, whereas in TRAP approach, there is a risk of triceps dehiscence and extensor weakness.

To Compare Gene Xpert and Cytochemical Analysis of Pleural Fluid in Diagnosis of Tuberculosis in Exudative Pleural Effusion at Bikaner District

Akhil Bansal, Manak Gujrani

Department of Respiratory Medicine, S P Medical College and Associated Group of Hospitals, Bikaner

INTRODUCTION

The use of biochemical markers such as ADA in pleural fluid may be of benefit in early diagnosis of tuberculosis pleurisy. In areas where tuberculosis is prevalent, an elevated ADA value is both highly sensitive and specific. This study compares pleural fluid adenosine deaminase (ADA) and Gene Xpert for diagnosis of tuberculosis in exudative pleural effusion.

METHODS

This was a hospital based cross sectional study involving 100 subjects. Patients having pleural effusion underwent cytochemical analysis and gene expert evaluation. Sensitivity of gene Xpert was compared with ADA level for diagnosis of tuberculosis in pleural effusion.

RESULTS

On comparison of gene Xpert with ADA in pleural effusion, sensitivity of cartridge-based nucleic acid amplification test (CBNAT) was 10% and specificity was 90% in this study population (PPV 10). The sensitivity of ADA test with the cut off value 60 IU/L was 100%.

CONCLUSION

The study highlights the limited sensitivity of Gene Xpert. Before evaluation of the test in pleural effusion the method of collection, storage and preparation of pleural fluid samples need to be optimised to enhance the sensitivity of Gene Xpert. Further research is needed to assess the role of adding more TB-specific antigens to try to improve diagnosis sensitivity.

Six Minute Walk Test in COPD and its Correlation with Spirometry

Anees K V, Suman Khangarot

Department of Respiratory Medicine, Government Medical College and Associated Group of Hospitals, Kota

INTRODUCTION

Chronic Obstructive Pulmonary Disease is a common preventable and treatable disease which possess an enormous burden to our society. Six Minute Walk Test (6MWT) has demonstrated a good reliability and validity as an assessment for exercise tolerance for moderate to severe COPD. 6MWT can be done easily where the spirometry is not feasible. The purpose of study was to correlate six minute walk distance (6MWD) with spirometric indices (forced expiratory volume in 1 second (FEV1), forced vital capacity (FVC) and peak expiratory flow rate (PEFR) in COPD patients.

METHODS

It was a cross sectional observational study conducted on 100 COPD patients who were attended the outpatient Department of Respiratory Medicine, Government Medical College and Associated Group of Hospitals, Kota over a period of one year. Spirometry test was performed and indices including FEV1, FVC, and peak expiratory flow rate (PEFR) were tested. 6 MWT was performed in every cases after diagnosing COPD and its correlation was calculated with Spirometric variables.

RESULTS

35% of the cases were found in the age group 50-60 years. 89% of the cases were males. Patients in stage 4 and stage 3 COPD showed heavy smoking compared to stage 2 and stage 1. 20.28 ± 14.62 , 17.60 ± 9.32 and 9.0 ± 5.66 . Mean \pm SD of duration of smoking (pack years) in Stage 4, 3, 2 and 1 were respectively. There was a significant association between the severity of COPD measured by FEV1% and the result of the 6MWD ($f = 44.258$ and $p < 0.001$). 6MWD was significantly correlated with absolute values of FVC ($r = 0.511$), FEV1 ($r = 0.562$), PEFR ($r = 0.433$).

CONCLUSION

In COPD patients functional exercise capacity measured by 6MWT deteriorated linearly with severity of the disease assessed by the Global Initiative for Chronic Obstructive Lung Disease (GOLD) staging criteria. Hence 6MWT can be used for assessing the severity of COPD.

Comparative Study of Serum Electrolytes and Urea Levels in HIV/AIDS and Pulmonary Tuberculosis Infected Subjects

Kamal Nayan Shringi, Anil Saxena

Department of Respiratory Medicine, Government Medical College and Associated Group of Hospitals, Kota

INTRODUCTION

Tuberculosis (TB) is most common cause of death worldwide due to single infectious agent in adult and account for over a quarter of all avoidable death globally. Water, electrolyte and urea derangement and associated cytochemical changes were common in tuberculosis and those with co-infection with HIV. The purpose of the study was to determine the effect of tuberculosis, HIV co infection and anti tubercular drugs on Na^+ , K^+ , Cl^- , HCO_3^- electrolytes, and urea level.

METHODS

This cross sectional study was carried out in Department of Respiratory Medicine, Government Medical College and Associated Group of Hospitals, Kota on the patients who were classified into 4 groups, normal patients, new positive cases of M. tuberculosis patients without HIV, new positive cases of tuberculosis co-infected with HIV, positive cases of M. tuberculosis patients on anti tuberculous drugs, over a period of one year. Blood was analyzed for urea, electrolytes, HIV/AIDS screening and then the values were correlated in between groups.

RESULTS

There were 72.7% male and 27.2% female patients in this study. Sodium value was significantly lower in new case TB patients and TB co-infection with HIV patients when compared with controls (134.95 ± 3.486 , 132.55 ± 3.95 v/s 139.16 ± 2.73 v/s) mmol/L while the potassium value was significantly higher in TB co-infection with HIV subjects and TB patients on drugs when compared with controls (4.18 ± 0.47 , 4.07 ± 0.20 vs 3.86 ± 0.29 mmol/L; $P < 0.05$). Chloride levels followed the similar pattern of sodium. The mean value of bicarbonate was significantly higher in TB patients on drug and TB co-infection with HIV patients when compared with controls (24.30 ± 2.08 , 24.3 ± 2.05 v/s 22.86 ± 1.78 mmol/L; $p < 0.05$). The mean value of serum urea level was significantly higher in TB co-infection with HIV patients when compared with control (35.1 ± 2.22 v/s 32.36 ± 5 mmol/L; $p < 0.05$)

CONCLUSION

Close monitoring of electrolytes are mandatory in TB patients especially HIV co-infected patients as high incidence of electrolyte disturbances are common.

Comparison of the Efficacy of Chlorhexidine Gluconate versus Povidone Iodine as Pre-operative Skin Preparation for the Prevention of Surgical Site Infections

Mohd. Rafik Rao, Ashok kumar

Department of General Surgery, S P Medical College and Associated Group of Hospitals, Bikaner

INTRODUCTION

Infections that occur in the wound created by an invasive surgical procedure are generally referred as surgical site infections (SSIs). The microorganisms that cause SSIs are usually derived from the patient (endogenous infection), being present on their skin or from an opened viscous. Preoperative skin preparation of the surgical site using appropriate antiseptic products is one of the important interventions to prevent SSIs. SSIs can double the length of time a patient stays in hospital and thereby increase the costs of health care. The aim of this study was to compare efficacy of Povidone Iodine (PI) and Chlorhexidine Gluconate (CHG) with help of sterile saline swab culture of SSIs.

METHODS

A total of two hundred surgical cases were included in our study. Patients were randomly divided in Group I and Group II each group having equal number of patients undergoing elective clean and clean-contaminated surgeries. The pre operative skin preparation is done with Povidone Iodine IP 5% w/v in group-I and Chlorhexidine gluconate 5% v/v in aqueous base in group II. In both the groups sterile saline swab culture were taken from the incision site pre-painting as well as post-painting.

RESULTS

Bacterial growth in prepainting period in Povidone Iodine group was 81.70% while in Chlorhexidine group it was 99.15% which is statistically insignificant and bacterial growth in post-painting period in Povidone Iodine group was 4.8% while in Chlorhexidine group it was 1.6% which was statistically significant.

CONCLUSION

Chlorhexidine aqueous was associated with reduced risk of postoperative SSI in clean and clean-contaminated surgery when compared to Povidone Iodine. Further studies should evaluate the effectiveness of CHG versus PI in reducing SSI across contaminated surgery.

Study of Post-operative Pyrexia

Jagdish Kumar, S S Rathore

Department of General Surgery, Dr S N Medical College and Associated Group of Hospitals, Jodhpur

INTRODUCTION

Post-operative pyrexia (14% to 91%) generates additional workup, antibiotic therapy, prolongs hospital stay, increases morbidity and mortality. Use of sophisticated and meticulous procedures has decreased incidence of post-operative pyrexia. However, postoperative fever continues to occur.

METHODS

The prospective cohort study was conducted at Mathura Das Mathur Hospital, Jodhpur, between September 2015 to August 2016 and included cohorts of 450 patients undergoing surgery. Out of them 106 patients developed postoperative pyrexia. The study focused on presentation, diagnosis and various postoperative complications, management modalities of complications, their final outcome and comparative analysis of the results. The results thus obtained were evaluated statistically (mean±SD, SEM, two tailed t test, chi-square test), p value of <0.05 was considered as significant.

RESULTS

Among the complications associated with postoperative pyrexia SSI occurred in 28.30% followed by SIRS 22.64% of the patients. The patients operated under General Anaesthesia are more likely to suffer from postoperative pyrexia as compared to spinal and local anaesthesia. The postoperative pyrexia occurred more after emergency surgeries compared to routine surgeries. Post-operative pyrexia significantly increased the length of hospital stay (p=0.016).

CONCLUSION

Judicious use of antibiotic and strict aseptic technique can prevent the occurrence of surgical site infections and postoperative pyrexia. The routine pre-anaesthetic checkups needs more focus on the significant risk factors found out in the present study which could decrease incidence of postoperative pyrexia. Mortality because of postoperative pyrexia can be prevented by proper history, early diagnosis and treatment of cause of fever.

Relation of Thyroid Profile, Lipid Profile and BMI in Patients with Gall Stone Disease

Poojan Purohit, Latika Sharma

Department of General Surgery, Dr S N Medical College and Associated Group of Hospitals, Jodhpur

INTRODUCTION

Gall stone disease is a very common gastro-intestinal disorder worldwide. Basis for it is impaired metabolism of cholesterol, bilirubin and bile acids. For decades there has been discussion, whether thyroid disorders could cause gall stone disease or not. Purpose of the study was to correlate BMI, lipid profile and thyroid profile with gall stone disease.

METHODS

A prospective study was conducted in 50 patients admitted in Department of General Surgery, Dr S N Medical College and Associated Group of Hospitals, Jodhpur from January 2015 to December 2016. Details of patients were recorded with USG findings, thyroid profile, serum lipid profile (LDL, HDL, serum triglyceride and total cholesterol) along with BMI. Statistical analysis was performed using Fischer's exact probability test, student 't' test and chi-square test and p value calculated, p value < 0.05 was considered statistically significant.

RESULTS

Gall stone disease was more prevalent in females with female: male ratio 3.54:1. Most of females were of age group 46-60 year while male 61-75 year. Prevalence of hypothyroidism was 6%, dyslipidemia was present in 60% patients of gall stone disease. Low HDL was the most common lipid profile parameter deranged. BMI was raised in 48% subjects with most of them in overweight category.

CONCLUSION

Association of dyslipidemia and raised BMI is statistically significant while there is no significant change in thyroid profile in patients with gall stone disease.

A Study of Clinical Profile and Management of Abdominal Tuberculosis

Ajay Malviya, Girish Bhardwaj,

Department of General Surgery, Dr S N Medical College and Associated Group of Hospitals, Jodhpur.

INTRODUCTION

Tuberculosis is a ubiquitous, specific communicable disease caused by mycobacterium tuberculosis. The aim of the study was to analyse various clinical presentations, frequency of infection of GIT and accuracy of diagnosis of abdominal tuberculosis and its complications.

METHODS

This retrospective and prospective study was conducted on 100 patients of abdominal tuberculosis admitted in various surgical wards of the Department of General Surgery, Mahatma Gandhi Hospital, Jodhpur over a period extending from October 2013 to June 2016. Records of all the patients were scrutinized. Routine investigations, sputum examination for acid fast bacilli (AFB), x-ray chest and abdomen, ultrasonography, CECT scan, histopathological examination of all prospective cases was done.

RESULTS

A total of 47 male and 53 female patients, with mean age of 33.8 years, presented with abdominal tuberculosis. Pain abdomen (100%), loss of appetite (80%), loss of weight (50%) and vomiting (40%) were the common symptoms. Most of the patients presented with intestinal obstruction and were anaemic. Dilated bowel loops (28%), multiple air fluid levels (22%) and gas under dome of diaphragm (12%) were the most frequent findings on X-ray flat plate abdomen. Mesenteric lymphadenopathy (66%), thickened ileocaecal junction (22%) and ascitis (45%) were the common findings on ultrasonology, CECT scan. Ileocaecal junction with or without mesenteric lymphnode (40%) was most commonly involved site. Ulcerative variety (45%) was the commonest type of gross pathology. Surgical site infection was the commonest complication encountered in the post-anastomosis of gut.

CONCLUSION

Abdominal tuberculosis is not an uncommon disease affecting young adults of both sexes belonging to low socioeconomic status. CECT scan of abdomen and pelvis increases the accuracy of diagnosis. The results of surgery plus DOTS are satisfactory.