

Abstract: Clinical Sciences

Socio-demographic Study of Low Birth Weight Babies, Maternal and Fetal Factor

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INTRODUCTION

Birth weight is an important predictor of early neonatal mortality, morbidity, and long-term health outcomes. In India, the prevalence of low birth weight (LBW) is around 18.6%. The aim of this study was to identify socio-demographic factors associated with the birth weight of newborns.

METHODS

The present cross-sectional study was conducted on a total of 100 LBW babies selected randomly with inclusion criteria i.e. singleton infants, and after consent of their parents. Multiple pregnancies or babies with congenital anomalies were excluded from this study. The socio-demographic variables like age, residence, religion, income and maternal characteristics like weight, parity, spacing, hemoglobin, utilization of ANC care, and outcome of pregnancy were recorded in terms of birth.

RESULTS

It was found that mean age of the participants, mean gestation age at birth and mean birth weight were 25.17±2.70 year, 38.13±1.47 weeks, and 2.25±0.17 kg. respectively. The mean BMI and mean Hb were 23.02±2.55 kg/m² and 8.92±0.96 gm/dL, respectively. Total 64% participants were found in normal BMI and 33% participants were found with low SES whose babies BW was between 2.1–2.5 kg. There were 29 participants with 2 parity whose babies BW was between 2.1–2.5. Total 69 participants had zero visit, while only 5 patients had 3 antenatal visits.

CONCLUSION

Maternal educational level, socio-economic status, haemoglobin level, parity, number of ANC visits, and gestational age are independent predictors of low birth weight.

A Study of Neurodevelopmental Outcome of Neonates with Hypoglycemia Admitted in the Neonatal Care Units of JLN

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INTRODUCTION

Hypoglycemia is seen in both the newborn nursery and neonatal intensive care unit (NICU) and is a leading cause of preventable brain damage, physical and mental handicap, and early deaths among infants. The aims of the present study were to find out the incidence of hypoglycemia among admitted newborns and to study the prevalence of neurodevelopmental abnormalities and risk factors associated with poor outcome.

METHODS

This was a prospective study on 100 neonates with hypoglycemia who were admitted to NICU and fulfilling the inclusion criteria. Gestational age at birth, sex, birth weight, age of presentation, duration, and severity of hypoglycaemia were noted in all neonates. Neurodevelopmental assessment was done on follow up at 3 and 6 months by Denver developmental screening test 2 (DDST 2) method.

RESULTS

The prevalence of abnormal neurodevelopmental outcome among hypoglycemic neonates was 72% at 3 months and 62% at 6 months. Factors such as presence of symptoms, longer duration of hypoglycemia, number of readings <25 mg/dl, and maximum glucose infusion rate (GIR) were significantly associated with adverse outcome. Mental and psychomotor developmental indices of the children who suffered from hypoglycemia during newborn period were significantly low.

CONCLUSION

Early diagnosis and treatment of neonatal hypoglycemia is mandatory to prevent neurological sequelae.

Assessment of Functional Outcome of Open Anterior Cruciate Ligament Reconstruction Using Quadruple Hamstring Autograft

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INTRODUCTION

In young active adults with anterior cruciate ligament (ACL) injuries, anatomic single bundle reconstruction with quadrupled hamstring graft gives good functional results. The aim of the present study was to evaluate the functional outcome of open single bundle anterior cruciate ligament reconstruction using quadrupled hamstring tendon autograft in individuals with ACL injuries.

METHODS

Between 2017 and 2019, records of 20 patients with complete ACL tear treated with open single bundle anterior cruciate ligament reconstruction were prospectively reviewed. Medial parapatellar approach was used, autograft was taken from ipsilateral hamstring tendon (gracilis and semitendinosus) which was quadrupled and fixed to endobutton on one side. Tunnels for tibia and femur were made and after graft passage endobutton was flipped on femur side and secured with interference screw on tibial side. Mobilisation was started early. Lysholm knee score and preoperative and postoperative IKDC score were measured and evaluated.

RESULTS

The mean follow-up period was 17.6 months. 9 patients (45%) had excellent functional outcome, 8 (40%) had good outcome, and 3 patients (15%) had a fair outcome according to Lysholm knee score and the average score was 91.9. The mean pre-op IKDC subjective score was 50.86 while the mean post op score was 87.66 ($p < 0.05$). One patient had superficial and one had deep infection which was treated with i.v. antibiotics. One patient has FFD of 10⁰ due to poor compliance to rehabilitation protocol.

CONCLUSION

Open ACL reconstruction with hamstring autograft is an excellent treatment option for ACL deficient knees.

Role of Serum Procalcitonin as a Diagnostic and Prognostic Marker in Bacterial and Non-bacterial Meningitis in Children Admitted at a Tertiary Care Centre, Bikaner

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INTRODUCTION

Meningitis is an extremely severe and life threatening infection that necessitates immediate diagnosis and prompt therapy. The present study aims to study the role of serum procalcitonin in differentiation of bacterial and non-bacterial meningitis and their prognosis.

METHODS

It was a hospital based observational study including 3 months to 12 years age children after excluding other non-CNS bacterial infection. Diagnosis of meningitis and differentiation in bacterial and non-bacterial group was made by CSF parameters. The serum procalcitonin level were sent at the start of treatment and repeated after 72 hours in those cases who had raised level (> 0.5 ng/dl). A written consent was obtained from parents of all participants.

RESULTS

Out of total 50 meningitis cases, mean age was 6.84 ± 4.14 years and 60% (30) were females. The level of serum procalcitonin was found to be increased in 57% (13/23) of bacterial meningitis and normal in children of all non-bacterial meningitis ($n=27$) ($p < 0.001$). Mean pre antibiotic procalcitonin in bacterial group was 7.15 ± 21.25 while in non-bacterial group it was 0.15 ± 0.14 ($p > 0.05$). After 72 hours of adequate therapy in bacterial group, 85% (11/13) patients had their procalcitonin level < 0.5 (0.06 ± 0.07) ($p < 0.001$).

CONCLUSION

Serum PCT has good sensitivity and high specificity for early diagnosis of bacterial meningitis and useful in prognosis of bacterial meningitis in children.

Impact of Antenatal Breastfeeding Counselling and Support in the Perinatal Period on Development of Children in First Year of Life

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INTRODUCTION

Initiation of breastfeeding within one hour of birth, exclusive breastfeeding for the first six months, and introduction of appropriate and adequate complementary food at 6 months prevent undernutrition in children and improve child survival. We planned to study the impact of antenatal structured breastfeeding counselling and active support of mother and child diet in perinatal period on development of baby and feeding practices in first year of life (at 3, 6, 9, and 12 months).

METHODS

It was a prospective interventional study conducted over a period of one year. Mothers of baby born by vaginal delivery, having birth weight more than 1800 grams, and gestational age ≥ 34 weeks were counselled about good IYCF practices during antenatal period.

RESULTS

The mean percentage of breastfeeding observation score in counselled group was 80.35% and in the non counselled group was 58.75%. Initiation of complementary feeding after completion of 6 months was achieved in 67.78% cases in the counselled group while it was 28.89% in the non counselled group. Development quotient (DQ) assessed by DAS II scale (motor, mental, and total DQ) was uniformly higher at 3, 6, 9, and 12 months of age in counselled groups as compared to non counselled groups and the difference was statistically significant all the age groups. The total DQ increased with increase in duration of exclusive breastfeeding in both the groups.

CONCLUSION

The first 1000 days offer a window of opportunity for providing support to the developing brain of the child by good IYCF practices. Counseling has emerged as a strong tool to achieve this.

An Observational Study of the Combined Use of the Modified Alvarado Score and USG for Diagnosis of Acute Appendicitis and Correlation with Histopathological Findings

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INTRODUCTION

A number of scoring systems have been advocated to minimize the number of negative appendectomies. The following study compares the accuracy of Modified Alvarado score and graded compression technique of ultrasound and examines the value of using both these modalities together.

METHODS

A total of 110 patients of pain in right lower quadrant of abdomen and strong suspicion of acute appendicitis with modified Alvarado score were studied during the period of 2 years. Informed consent was obtained and detailed history, thorough clinical examination was carried out. Patients were operated with standard surgical procedure. The modified Alvarado score and USG findings were compared with histopathology report.

RESULTS

Male to female ratio was 1.34:1. Out of 110 patients, 53 patients had TLC >10000 and 47 patients had TLC between 4000-10000 and 10 had TLC <4000 cells/mm³, respectively. Out of 13 patients with score of 5-6 who got operated, 11 came out to be of appendicitis and 11 were false negative. Pre-operative USG was performed in all 110 cases, out of them 103 cases were positive for features of acute appendicitis which were later confirmed with histopathological studies. One of the 110 cases, who had normal abdominal scan was operated according to modified Alvarado score and was found to have acute appendicitis in histopathological study.

CONCLUSION

The application of modified Alvarado scoring system and USG increases the sensitivity and specificity for the diagnosis of acute appendicitis and are easy to use.

Study to Assess the Value of Autologous Blood Patch (ABP) for the Treatment of Bronchoplural Fistula in Spontaneous Pneumothorax

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INTRODUCTION

A primary spontaneous pneumothorax occurs in individuals with no known underlying pulmonary disease whereas secondary is developed in patient with known lung disease. The aim of this study was to assess the value of autologous blood patch (ABP) for the treatment of bronchoplural fistula in spontaneous pneumothorax.

METHODS

In this prospective hospital-based study, 50 patients of broncho plural fistula in spontaneous pneumothorax were selected by consecutive sampling. 50 ml sample of blood was taken from the patient's veins and immediately introduced into pleural space by the chest tube. Then 30 ml normal saline was injected. The next day, the water-seal were reviewed for air leaks. If air leak is persisted after 48 hours then procedure was repeated. The procedure was repeated up to three times after that if still air leak persists then it was assumed failed.

RESULTS

On chest X ray, 52% had left laterality whereas 48% had right laterality. Majority 76% were SSP. In PSP, majority (75%) were smoker while in SSP 71.05% were smoker whereas 25% in PSP and 28.95% in SSP were non-smoker on 1st attempt maximum 70% were treated whereas minimum 30% were treated on 3rd attempt followed by 2nd attempt 33.33%. 7 patients (14%) were not treated by all 3 attempts. Overall success rate was 86%, 6% developed empyema and 4% developed surgical emphysema and further lung collapse.

CONCLUSION

ABP is feasible and safe when used to seal air leak in broncho plural fistula in spontaneous pneumothorax.

Yolk Sac Measurements and Embryonic Heart Rate in Predicting First Trimester Pregnancy Outcome

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INTRODUCTION

Yolk sac is the first ultrasonographically visible extra embryonic structure within the gestational sac. This study was conducted to assess the correlation of patient's first trimester outcome with the yolk sac size and the embryonic heart rate at 6-12 weeks gestation and to evaluate the association of patient's age, consistency, menstrual history, parity and medical illness with first trimester outcome and to evaluate the other sonographic parameters like crown rump length (CRL) and mean sac diameter with first trimester outcome.

METHODS

Antenatal women in first trimester attending routine antenatal check up in the out-patient department were included and subjected to scan. Only antenatal women <30 years with singleton pregnancy were included in the study. Patients with history of intake of teratogenic drugs, without embryonic heart rate, an embryonic pregnancy, subchorionic haemorrhage, and inconsistency between gestational sac size and CRL were excluded from the study.

RESULTS

In the present study gestational sac mean size was 32.12 mm and significantly correlated with the first trimester outcome. Mean size was 33.10 mm in the normal pregnancies and 26.61 mm in miscarriage group. Embryonic heart rate had significant correlation with the first trimester outcome. The ultrasonographic estimation of gestational age had significant correlation with pregnancy outcome. In this study, CRL was inversely associated with miscarriage.

CONCLUSION

The present study indicates that the yolk sac size and the embryonic heart rate is a reliable, cost effective, and beneficial in predicting first trimester pregnancy outcome especially in patients who conceive following IVF.

A Prospective Study of Efficacy and Safety Profile of Cup versus Alligator Forceps in Endobronchial Lesions

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INTRODUCTION

Lung cancer is the leading cause of cancer related deaths worldwide. Fibreoptic bronchoscopy is the most common diagnostic modality employed for the diagnosis of lung cancer. The aim of the present study was to compare the efficacy and safety profile of cup and alligator forceps in endobronchial lesions. The impact of number and size of tissues on the diagnostic yield was also studied.

METHODS

It was an observational study conducted on 50 patients with endobronchial lesions on flexible bronchoscopy who underwent biopsy with either cup forceps or alligator forceps. 3-5 samples were obtained depending on the patient cooperation, visibility, and status of bleeding. The average size of the tissues obtained, complications, and diagnostic yield were compared between alligator forceps group and cup forceps group.

RESULTS

The mean size of tissue in alligator and cup forceps was 3.72 ± 0.74 mm and 2.80 ± 0.82 mm, respectively ($p < 0.001$). The diagnostic rate was 84% in alligator and 88% in cup forceps group ($p=1$). Bleeding was seen in 4% cases of alligator forceps and 12% cases of cup forceps ($p=0.609$). There was a positive correlation between the tissue sample number with the diagnostic yield (point biserial correlation = 0.48, $p < 0.001$). The positive correlation between size of tissue and diagnostic yield was not significant.

CONCLUSION

The use of alligator forceps yielded bigger tissue samples than cup forceps. However, the diagnostic yield was similar in both groups. The incidence of bleeding was higher in the cup forceps group (not significant).

A Study of Port Site Infection after Laparoscopic Cholecystectomies at Tertiary Care Hospital in Western Rajasthan

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INTRODUCTION

Port site infection though rare, shall be evaluated and studied so as to improve the quality of healthcare. The aim of this study was to describe port site infection after laparoscopic cholecystectomies.

METHODS

This prospective study was conducted in the Department of General Surgery of a tertiary care centre in Rajasthan. 300 patients of all age group and both sexes with symptomatic cholelithiasis undergoing laparoscopic cholecystectomy were studied.

RESULTS

Maximum patients (40.33%) were from 46-60 years age group followed by 24.67% patients in 31-45 years age group and 21% patients were more than 60 years. 62.67% patients were female and 37.33% patients were male. 54% patients were from rural and 54% patients were from urban. 4% cases were presented with port site infection. 75% port site infections were superficial and 25% were deep. 41.66% port site infection was in 46-60 years age group and 25% port site infection was in more than 60 years and 31-45 years age group, respectively. 75% port site infection in female and 25% infection in male. The most common organism was *Enterobacter* species (25%), *Staphylococcus aureus* (16.67%), *Enterobacter* species (16.67%) and *E. Coli* (8.33%). 100% patients were treated by antibiotic prophylaxis and 25% patients were treated by incision and drainage with antibiotic.

CONCLUSION

Port site infections are rare in elective laparoscopic cholecystectomy and can be further reduced by proper selection of patients and strictly following basic principles of laparoscopic cholecystectomy.

To Study and Compare the Efficacy of Bedaquiline Plus Optimized Background Regimen and High Dose Moxifloxacin Plus Optimized Background Regimen in Drug Resistant Pulmonary Tuberculosis

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INTRODUCTION

The treatment of drug-resistant tuberculosis (DR-TB) is poor worldwide. This study was done to assess the rate of culture conversion, 6th month conversion, and the adverse drug events (ADE) in two regimens introduced under PMDT 2017.

METHODS

It was an observational cross sectional study conducted on 90 patients of DR-TB (44 in BDQ+OBR group and 46 in Mfx (h)+OBR) group. Drug resistant tuberculosis patients of more than 18 years were included pregnant women and uncontrolled arrhythmia patients were excluded.

RESULTS

Among 90 patients on the treatment, sputum culture conversion were observed in 41 patients (100%) in BDQ+OBR and 36 patients (87.8%) in Mfx (h)+OBR groups. At the end of 6 months, the mean culture conversion were found to be 3.10± 0.8 months in BDQ+OBR and 3.32 ± 0.9 months in Mfx(h)+OBR. Mortality was 6.8% in BDQ+OBR and 10.8% in Mfx(h)+OBR. Hyperuricemia, dark discoloration, peripheral neuropathy were common ADE in BDQ+OBR and ototoxicity, gastritis were common ADE in Mfx (h) +OBR. Serum lipase was raised in BDQ+ OBR (15%).

CONCLUSION

BDQ+OBR has been found to be associated with earlier sputum culture conversion and higher success of conversion compared to Mfx (h)+OBR with mild-moderate ADE.

Evaluation of the Efficacy of a Combination of Methyl-prednisolone and Etoricoxib to Attenuate Post operative Pain and PONV in Patients Undergoing Laparoscopic Surgeries

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INTRODUCTION

Postoperative pain and PONV are common symptoms in the postoperative period following laparoscopic surgery. The study was undertaken to evaluate the efficacy of combination of Methyl-prednisolone 125 mg IV and Etoricoxib 120 mg per oral to attenuate postoperative pain and PONV in patients undergoing laparoscopic surgeries.

METHODS

The study was a hospital based prospective randomized double blind study. Seventy ASA grade I and II patients undergoing elective laparoscopic surgeries were divided into two groups. The test group was given a combination of Methyl-prednisolone 125 mg IV and Etoricoxib 120 mg (group A, n=35) while the control group received normal saline IV and a placebo per oral (group B, n=35). The duration of postoperative analgesia with number of doses of rescue analgesic (inj Fentanyl 50 µg), variability of haemodynamic parameters, and effect on PONV were observed and compared.

RESULTS

Demographic profiles were comparable. Duration of postoperative analgesia was significantly prolonged (p<0.05) in group A (7.57±1.04 hours) as compared to group B (3.05±0.5 hours). Group A showed a significant reduction in postoperative Fentanyl consumption in the form of rescue analgesic (p<0.05) and the incidence of PONV (p<0.05).

CONCLUSION

Preoperative single-dose administration of Methyl-prednisolone+Etoricoxib combination reduces post-operative pain along with PONV, Fentanyl consumption, and anti-emetic requirements as compared to placebo.

An Epidemiological Study of Iron Deficiency in Generalized Chronic Pruritus Patients in South East Area of Rajasthan

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INTRODUCTION

Generalized pruritus can represent the manifestation of a systemic disease, among which iron deficiency may act as an underlying internal cause for their symptoms. Data for association between iron deficiency and generalized chronic pruritus is limited. The aim of this study was to evaluate the prevalence of iron deficiency in patients of generalized chronic pruritus in south east region of Rajasthan and to assess the correlation of serum ferritin with the variables of iron deficiency.

METHODS

It was a non-interventional hospital based observational analytical study. A total of 200 patients attending OPD with complain of itching all over the body without any skin lesion for more than 6 weeks were included.

RESULTS

Females (108, 54%) out numbered males (92, 46%) with the ratio of 1.17:1. Mean age of patients was 37.35 ± 13.56 years. Serum ferritin level below 15 g/L was found in 58 (29%) patients. Correlation was found between serum ferritin and haemoglobin, MCV, MCH, and MCHC values and p value was <0.05 . Maximum number of patients (70, 35%) attained VAS score between 4 and 9 followed by scoring >9 in 50 (25%) patients. Similarly, statistically significant correlation was found between VAS scoring and haemo-globin, MCV, MCH, and MCHC.

CONCLUSION

It can be concluded that there is a significant association between generalized chronic pruritus and iron deficiency.

Comparison of Outcome of Integrative Weaning Index with the Current Methods of Weaning (Spontaneous Breathing Trial) in Patients under Mechanical Ventilation

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INTRODUCTION

The use of weaning indicators can avoid both early extubation and wrongful prolonged mechanical ventilation. The study aimed to find the relationship of Integrative Weaning Index (IWI) with the spontaneous breathing trial in patients under mechanical ventilation.

METHODS

It was a prospective study on 130 critically ill patients who were under mechanical ventilation for more than 48 hours. We calculated the IWI before the spontaneous breathing trial and based on the defined cut off value ≥ 25 the success rate of SBT was predicted. At the time of weaning, the physiologic and respiratory parameters of the patient were monitored and if they were in the normal range and if the patient maintained a spontaneous breathing effort for next 48 hours, then the spontaneous breathing trial was considered as successful. The results were then compared with IWI and analyzed.

RESULTS

Among the 130 studied cases, 98 (75.4%) had a successful outcome whereas failure was recorded in 32 (24.6%) patients. The mean IWI in patients with successful outcome was 58 and in those with failed outcomes was 22 and this difference was found to be statistically significant (p value-0.001). Given the diagnostic accuracy of this index, the results revealed 97.96% sensitivity, 87.5% specificity, 93.33% PPV, 96% NPV, and 95.38% accuracy.

CONCLUSION

IWI is a better predictive performance index of weaning outcome and can be used in the intensive care unit setting.

A Study of Perinatal Outcome in Non Reactive Non Stress Test

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INTRODUCTION

This study objective was to understand the perinatal outcomes in pregnant woman with non-reactive non stress test (NST) and the role of NST in management of high risk pregnancies.

METHODS

This was a cross sectional study done on 100 high risk pregnant women above 34 weeks of gestation admitted and delivered from January 2019 to November 2019.

RESULTS

The maximum number of cases belonged to the age group 21-25 years (36%). The mean age of the cases was 25.6 ± 4.83 years. The maximum number of cases was seen in gestational age group of 37-39 weeks. The commonest risk factor observed in the present study was hypertensive disorder of pregnancy (56%), either alone (21%) or with other risk factors like gestational diabetes mellitus (10%). The rate of intervention in terms of induction of labor and elective LSCS was 83%. Out of 100 babies with non reactive NST traces, 97 (97%) babies survived and were discharged healthy. 26 (26%) babies suffered significant morbidity requiring NICU care, of which 3 (3%) babies expired. It was also noted that APGAR score, cord factor and meconium stained liquor did not have any significant effect on perinatal outcome.

CONCLUSION

The non reactive NST does not indicate the fetal status and subsequent perinatal outcome accurately, thus non reactive NST should be supported by other antenatal fetal surveillance techniques prior to obstetric intervention. Non reactive NST influences the mode of delivery.

Functional Outcome of Bicondylar Tibial Plateau Fractures Treated with Dual Plating

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INTRODUCTION

The ideal management of bicondylar fractures of the tibial plateau remains controversial. The present study aims to evaluate the functional outcome of bicondylar tibial plateau fractures treated with dual plating.

METHODS

A total 25 consecutive patients of bicondylar tibial plateau fractures (Schatzker type V and VI) were treated with dual plating using posteromedial and anterolateral approach. Weight-bearing was allowed at 10-12 weeks. Postoperative clinical assessment was done according to modified Rasmussen system assessing pain, walking capacity, range of motion, and stability and results was evaluated.

RESULTS

Type VI was the most common fracture type of tibial plateau fracture comprising 21 patients (84%) followed by type V involving 4 patients (16%). The most common mechanism of injury was road traffic accident involving 23 patients (92%). Mean duration between the times of injury to surgery was 2.68 days. Radiological union was achieved at average 20 weeks. All patients had a good range of motion at the end of six months. There were no major complications related to the procedure. Four patients developed superficial infection at operative site which settled after regular dressing and a course of antibiotics for 4 weeks.

CONCLUSION

The open reduction and internal fixation of high-energy tibial plateau fractures with dual plates gives rigid fixation, congruent articular reduction, adequate knee stability, and excellent to good functional outcome with minimal soft tissue complications.

Correlation of Serum Magnesium and Potassium Levels with Severity and Short Term Prognosis in Acute Ischemic Stroke Patients

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INTRODUCTION

In acute ischemic stroke, lower levels of serum magnesium and potassium have an impact on causing ischemic cell death. The present study aimed to find the correlation of serum magnesium and potassium levels with severity and short term prognosis in acute ischemic stroke patients.

METHODS

100 patients of acute ischemic stroke with equal number of age and sex matched control subjects were enrolled in the study. Serum magnesium, and potassium levels, and NIHSS score were measured at the time of admission and on day 3 alongwith subsequent neurological deterioration.

RESULTS

In acute ischemic stroke patients on day 1 and day 3, mean serum magnesium was 1.56 ± 0.51 and 1.88 ± 0.53 mg/dl and serum potassium was 2.81 ± 0.62 mmol/L and 3.17 ± 0.22 mmol/L; both were significantly minimum in the age group of >70 years, compared to control groups. Males of age >45 years had significantly lower levels of serum magnesium as compared to similar age group females both on day 1 and day 3 whereas on day 3, females of age >45 years had statistically significant lower levels of serum potassium. A statistically significant negative correlation was found between patients having serum magnesium <2 mg/dl and serum potassium <3.5 mmol/l and NIHSS both on day 1 and day 3 and these patients had significantly higher early neurological deterioration (END) when compared to patients having serum magnesium >2 mg/dl and serum potassium >3.5 mmol/l.

CONCLUSION

Recognition of electrolyte imbalance and its early corrections in routine clinical practice specifically in patients with multiple classical risk factors may prevent the incidence and END in acute ischemic stroke.

Evaluation of Diagnostic Accuracy of Magnetic Resonance Imaging in Posterior Ligamentum Complex Injury of Thoracolumbar Spine

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INTRODUCTION

It is essential to precisely diagnose posterior ligament complex (PLC) injury before deciding a treatment plan for thoracolumbar injury patients. The study was done to evaluate the ability of magnetic resonance imaging (MRI) for diagnosing PLC.

METHODS

Patients who sustained injury from T1 to L3 and required posterior surgery were prospectively studied. Preoperative MRI images were reviewed to characterize the level(s) of injury and the integrity of the 6 components of the PLC as intact, incompletely disrupted, or disrupted. During the surgical procedure, the surgeon identified each component of the PLC. Later, the radio-logist's interpretation and surgical findings were compared.

RESULTS

Out of 33 patients, 23 were males and the average age was 34.12 years. According to the kappa score, there was a moderate level of agreement between the radiologist's interpretation and the intraoperative findings for all PLC components except the thoraco lumbar fascia and ligamentum flavum for which there was slight agreement. The sensitivity for the intact various PLC components ranged from 100% (supraspinous ligament) to 66.67% (ligamentum flavum). The specificity ranged from 100% (interspinous ligament) to 52% (thoracolumbar fascia). The Spearman's rank correlation ranged from 0.061 of thoracolumbar fascia to 0.918 of interspinous ligament and a percentage agreement ranging from 81.82% (interspinous ligament) to 36.36% (thoracolumbar fascia).

CONCLUSION

The sensitivity and specificity of MRI for diagnosing injury of the PLC was found to be lower and MRI alone should not be used to determine treatment.

Prevalence of Diastolic Transmitral Flow Abnormality and ECG QTc Prolongation in Patients of Cirrhosis of Liver and Their Correlation with Severity of Cirrhosis

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INTRODUCTION

The study aimed to find the prevalence of transmitral diastolic flow abnormality and ECG QTc interval in cirrhosis patients, and their correlation with severity of liver cirrhosis based on Child Pugh score.

METHODS

In this observational study, 50 cases of liver cirrhosis and 50 age and sex matched controls were included. All patients were subjected to routine investigations including USG, 2D echocardiography, and ECG. Patients were classified on Child Pugh score on different classes of cirrhosis.

RESULTS

Out of 50 cases, 72% had LVDD (left ventricular diastolic dysfunction) and QTc interval prolongation (440 msec) was found in 50% patients of liver cirrhosis. Out of 38 alcoholic patients, 28 had LVDD. Mean QTc interval in cases was 431.6 ± 62.84 msec and in controls was 382 ± 47.31 msec and was statistically significant. The E/A ratio in cases with mean 0.94 ± 0.20 and in control with mean 1.10 ± 0.19 was a statistically significant. In our study 36 patients had LVDD based on E/A ratio, out of these 12 had grade 1 DD and 24 had grade 2 DD. Out of these 36 LVDD patients, 2 were Child Pugh class A, 8 class B, and 26 class C. There was a statistically significant correlation between severity of cirrhosis based on Child Pugh classes and DD and its grading based on E/A and between the severity of liver cirrhosis and QTc interval. The combined effect of diastolic dysfunction and QTc were found in 21 patients out of 50, these combined effect increases with severity of liver cirrhosis.

CONCLUSION

Prevalence and severity of diastolic dysfunction correlated significantly with severity of hypoalbuminemia and hyponatremia.

Surgical Management of Intra Articular Fractures of Distal Humerus in Adults Using Triceps Reflecting Anconeus Pedical (TRAP) Approach

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INTRODUCTION

Distal humerus fractures remain some of the most difficult injuries to manage despite advancement in techniques and implants. The aim of this study was to evaluate the results of open reduction internal fixation of intra-articular fractures of distal humerus using the triceps reflecting anconeus muscle pedicle approach (TRAP) with preservation of the extensor apparatus as a safe alternative giving a sufficient exposure to the elbow joint.

METHODS

We reviewed the functional and radiological results of 20 patients with intercondylar fractures of humerus treated by internal fixation through TRAP approach admitted from July 2018 to June 2019. The fracture was fixed by 90-90 implant configuration using the precontoured plates over posterolateral column and medial column, the intercondylar was fixed by a 4 mm c.c. screw creating the triangular configuration. Aggressive physiotherapy was initiated after stitch removal.

RESULTS

Functional outcome was analysed by mayo elbow performance index with excellent results in 5 out of 20 cases, good in 9, fair in 4, and poor in just 2 cases. The average range of motion was 88.75 degrees. No patient had triceps rupture, one each had implant failure and ulnar nerve palsy, 2 cases were of infection and 3 of hardware protrusion.

CONCLUSION

The TRAP approach provides good visualization for fixation of intercondylar fractures of humerus without any noticeable untoward effect on triceps strength and postoperative rehabilitation and one can avoid iatrogenic fracture of the olecranon and its associated complications.

Comparison of Occurrence of Pulmonary Hypertension in Patients with Tubercular Destroyed Lungs and their Clinical Characteristics Compared with Patients of Pulmonary Hypertension Associated with Chronic Obstructive Pulmonary Disease

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INTRODUCTION

There is limited data on pulmonary artery hypertension patients with tuberculosis destroyed lung (TDL), a sequel of pulmonary tuberculosis. The aim of this study was to identify the occurrence of pulmonary artery hypertension in TDL and their effect on mortality in patients with TDL and also comparison of PAH with COPD patients.

METHODS

A prospective cross sectional study was conducted on 100 patients. PAH was identified by echocardiography. Among 100 patients, 50 patients were included with tuberculosis destroyed lung and 50 patients of COPD and echocardiographic data were evaluated for PAH.

RESULTS

Pulmonary artery hypertension occurred more in extensively destroyed lungs and smaller lung volume as compared to normal lungs. In COPD patients, PAH occurs in severe air flow limitation. The risk of mortality in TDL and COPD are almost similar. The presence of pulmonary artery hypertension in tubercular destroyed lung 18 (36%) patients in younger age, but in COPD, 24 (48%) patients in older age. There was no association between lobar distribution of lung and pulmonary hypertension in tubercular destroyed lung, but associated with severity of lung destruction.

CONCLUSION

All cases mortality did not differ with COPD with PAH and TDL with PAH. In our study, the clinical characteristics are almost similar patients of PAH associate with COPD and patients of PAH with TDL.

Comparison of Efficacy of Intrathecal Fentanyl versus Nalbuphine with Ropivacaine in Spinal Anesthesia for Postoperative Analgesic Effect following Lower Segment Cesarean Section: A Randomized Comparative Study

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INTRODUCTION

The aim of the current study was to compare the analgesic efficacy and hemodynamics following the use of intrathecal Fentanyl and Nalbuphine as adjuvants to 0.5% isobaric Ropivacaine in lower segment cesarean section (LSCS).

METHODS

A prospective, randomized double blind comparative study was conducted on 60 patients undergoing LSCS following spinal anesthesia. Patients were randomly allocated into two groups with 30 patients in each group. Group 1 received Ropivacaine (0.5%) 10 mg + 20 µg Fentanyl and group 2 received Ropivacaine (0.5%) 10 mg + 0.8 mg Nalbuphine. Hemodynamics at baseline, immediately after spinal (T0), 5 minutes (T5), 10 minutes (T10), 15 minutes (T15), 20 minutes (T20), 25 minutes (T25), 30 minutes (T30), and 45 minutes (T45) were recorded.

RESULTS

Patients in group 1 had significantly rapid onset of sensory and motor blockade ($p < 0.001$), however duration of blockade was comparable in both groups ($p > 0.05$). The mean duration of effective analgesia (VAS < 3) was significantly higher in group 2 (235.67 ± 52.96 vs. 413.00 ± 40.24 , OR = 1.04, 95% CI = 1.02-1.07, $p < 0.001$). The requirement of rescue analgesics were less in group 2 (2.63 ± 1.40 vs. 1.87 ± 1.04 , OR = 0.62, 95% CI = 0.39-0.97, $p = 0.019$). Systolic BP was maintained in both groups ($p > 0.05$). Group 2 had significant decrease in diastolic and mean BP at 15, 20, 25, 30, and 45 minutes ($p < 0.05$) but mean BP was maintained above the desired level (> 60 mm Hg) throughout surgery in both the groups.

CONCLUSION

Both intrathecal Fentanyl 20 µg and Nalbuphine 0.8 mg are effective adjuvants to 0.5% Ropivacaine in LSCS.

To Investigate Oxidative Stress Pathway in Plasmodium Vivax and Falciparum Infected Adult Patients

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INTRODUCTION

Malaria is an important human parasitic disease. As of October 2019, the NVBDCP Indian database suggested that 286091 malaria cases were reported out of which 128544 were falciparum malaria. The aim of the present study was to identify and evaluate malaria patients by clinical, haematological, and biochemical parameters and investigate oxidative stress pathway in vivax and falciparum infected adult malaria patients.

METHODS

This was a hospital based comparative cross sectional study of 15 month duration, where randomly selected 27 cases in each group meeting the inclusion criteria were included. Blood samples were drawn in EDTA vials from all cases after written and informed consent. The samples were processed in Indian Institute of Technology, Bombay, Powai for analysis of oxidative stress pathway.

RESULTS

Mean age in PF group was 33.50±4.95 years while mean age in PV group was 31.48±12.65 years ($p > 0.05$). Higher percentage of males was present as compared to females and most cases belonged to rural area. Superoxide dismutase-1, Ceruloplasmin, and hemoglobin was up-regulated in malaria patient sera, whereas Peroxiredoxins was found to be down regulated in malaria patients sera as compared to healthy individual sera.

CONCLUSION

The resulting oxidative stress has been suggested to be one of the major mediators of erythrocyte damage, anaemia, thrombocytopenia, and hepatic and renal dysfunction in malaria.

Comparison of Efficacy of Palonosetron - Dexamethasone Combination with Palonosetron Alone or Dexamethasone Alone for Prophylaxis Against Post-operative Nausea and Vomiting in Patients Undergoing Middle Ear Surgery

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INTRODUCTION

Post-operative nausea and vomiting (PONV) is highly distressing and unpleasant symptom. This study compares the efficacy of Palonosetron or Dexamethasone alone and their combination (Palonosetron plus Dexamethasone) for prevention of PONV after middle ear surgery.

METHODS

This prospective, randomized, double-blind study was done on 150 adults, ASA grade I and II patients, aged 18-60 years undergoing middle ear surgery. They were allocated to three groups which were to receive either of the three treatment regimens: Dexamethasone 8 mg (group D, n=50), Palonosetron 0.075 mg (1.5 ml) (group P, n=50) or Dexamethasone 8 ml + Palonosetron 0.075 mg (group PD, n=50). The primary outcome was incidence of PONV in 24 hour and the secondary outcome was a number of rescue antiemetic required and any side effect associated.

RESULTS

There was no significant difference between the groups in demographic characteristics, hemodynamic parameters, and adverse event. The overall incidence of PONV in the study 24 hours postoperatively were least in Palonosetron-Dexamethasone as compared to Palonosetron and Dexamethasone alone ($p \text{ value} = < 0.0001$).

CONCLUSION

Palonosetron-Dexamethasone combination is more effective and better prophylactic agent than Palonosetron alone and Dexamethasone alone as conventional therapy for preventing PONV in patients undergoing general anaesthesia for middle ear surgery.

Placebo-Controlled, Parallel Safety and Efficacy Study of Topical Atropine (0.01%) in Children with Myopia

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INTRODUCTION

Myopia is the most common developmental eye disorder. In 2000, 23% of the world population were estimated myopic, and the worldwide prevalence is expected to increase to 50% by the year 2050. The aim of this study was to evaluate the safety and efficacy of topical atropine (0.01%) in controlling the progression of myopia in children.

METHODS

In this prospective case control study, 80 children with regular follow-up were divided into a subgroup of 40 children who received atropine eye drops (0.01%) every night and a subgroup of 40 children, who remained untreated and served as controls. The data regarding changes in refractive error and axial length of 160 eyes in 80 children were collected and compared for patients treated with 0.01% atropine eye drop and those with 0.5% c.m. c eye drops (control) at 6 month, 12 month, and 24 months, respectively. The initial spherical equivalent of refractive status range was between 1.5 and 14.25 DS.

RESULTS

Mean myopia progression for the group of patients treated with 0.01% atropine eyedrop was 0.34 ± 0.43 DS/year, significantly lower than that of the control group of 1.08 ± 0.57 DS/year and axial length 0.12 ± 0.23 mm/year (cases) compared to controls 0.48 ± 0.29 mm/year with p value < 0.05 .

CONCLUSION

0.01% atropine is effective in controlling progression of myopia in children of age group 5-16 years with no side effects.

Association between Insulin Resistance and Bone Mass in Type 2 Diabetic Patients

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INTRODUCTION

Bone is metabolically active organ, affected by metabolic disorders such as diabetes and obesity. The study aimed to study the association of insulin resistance and bone mass in type 2 diabetic patients.

METHODS

This was an observational study conducted on 200 type 2 diabetes patients during 12 months period. Bone mineral density (BMD) was measured using dual-energy x-ray absorptiometry. Osteopenia and osteoporosis were defined using WHO T-score criteria. Fasting plasma insulin and glucose levels were measured and insulin resistance was evaluated using the homeostasis model assessment-estimated insulin resistance (HOMA-IR) index. Statistical analyses were performed using SPSS Version 17.0.

RESULTS

Mean T-score in normal, osteopenia, and osteoporosis were 1.46 ± 0.71 , -1.291 ± 1.20 , and -0.38 ± 0.44 , respectively and this difference was found to be statistically highly significant ($p < 0.001$). Mean HOMA-IR in normal, osteopenia, and osteoporosis were 3.41 ± 1.49 , 5.432 ± 2.83 , and 5.56 ± 2.42 , respectively and this difference was found to be statistically highly significant ($p < 0.001$). On applying Spearman's correlation, maximum association of BMD was with insulin resistance (HOMA-IR) ($r = 0.471$) followed by duration of diabetes ($r = 0.447$), ESR ($r = 0.420$), hs-CRP ($r = 0.355$), fasting insulin ($r = 0.252$), and HbA1c ($r = 0.243$).

CONCLUSION

In type 2 diabetes mellitus, insulin resistance and fasting hyperinsulinemia are inversely associated with bone mass.

Application of Paediatric Risk of Mortality (PRISM-III) Score to Predict Outcome in Critically Sick Children Admitted in a Tertiary Care Paediatric Intensive Care Unit in PBM Children Hospital, Bikaner

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INTRODUCTION

The PRISM III score is an enhanced version of PRISM score which is important to demonstrate the quality of care, prognosis, and risk of mortality in pediatric ICU. The objective of the study was to assess the utilization of the Pediatric Risk of Mortality (PRISM III) score to predict the outcome in critically sick children and determination of mortality risk factors in a tertiary level PICU.

METHODS

In this prospective observational study, children from 1 month to 14 year, who were admitted in PICU during the period of February to April 2019 were investigated. Cases with death in less than 12 hours or discharged in less than 24 hours or with congenital malformation or post-operative cases were excluded. In the subjects fulfilling inclusion criteria PRISM III score which include 17 physiologic variables subdivided into 26 ranges was calculated within 24 hours of admission. The outcome was determined as survival or non-survival.

RESULTS

Out of 96 patients, 51% were male. Infants were 44%, adolescent 7%, and rest were 49%. There was more mortality in children of more than 1 year of age (p value 0.04). Deaths were more common in hepatic > MODS > CNS cases which was statistically significant. Mortality increased from 15.6% at PRISM III score 0-5 to 67% at PRISM III score >25 (p value - 0.002). Area under ROC curve was 76% with 95% confidence interval.

CONCLUSION

The PRISM III score expressed satisfactory discriminatory capacity and calibration thus representing a practical test for evaluation of prognosis of patients admitted in PICU.

Intra-articular Distal Radius Fractures and Fixed Angle Volar Locking Plate Fixation: A Prospective Study

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INTRODUCTION

This study investigates the efficacy of fixed angle volar locking plates using volar approach by evaluating functional and radiological outcome.

METHODS

A total of 25 patients with closed intra-articular distal radius fractures, with AO type B2, B3, and C fracture pattern, operated with fixed angle locking plate fixation using volar approach were included in the study during the period of July 2018 to September 2019 with a minimum follow up of six months. The radiological outcome was analyzed (Sarmientos modification of Lindstrom criteria) and functional outcome recorded (Gartland and Werley's demerit scoring system).

RESULTS

With a mean age of 38.4 years and follow up of three months, the range of movement of the wrist was very satisfactory, and the mean grip strength was 85% of the opposite wrist. Functional parameters showed a significant improvement in most of the patients during the follow-up period (68% excellent, 16% good, 16% fair) and radiological parameters were well maintained (Lindstrom criteria-60% excellent, 29% good, 7% fair, 4% poor) and the complication rate was less and insignificant.

CONCLUSION

Primary fixed angle volar plate fixation of intra-articular distal radius fracture provides a stable fixation that is effective in anatomic realignment, allows early joint motion, owing to its fixation strength, thereby better functional and radiological outcomes and minimal complication.

Effect of Glycemic Control on Arterial Stiffness in Patients of Type 2 Diabetes Mellitus

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INTRODUCTION

Glycemic control assessed by HbA1c is associated with decreased cardiovascular disease in T2DM patients. The current study investigated arterial stiffness in a population of T2DM and its relationship with the level of glycemic control and microvascular complications was also assessed.

METHODS

A cross-sectional study was done on 250 patients of T2DM (as per ADA 2018 guidelines) alongwith 100 healthy controls. Hypertensives and known cases of cardiovascular diseases were excluded. Glycemic control was assessed using HbA1c (ADA cut off of <7%) and arterial stiffness was assessed using Periscope which is a non-invasive cardiovascular analysis device which uses the principles of Pulse Wave Analysis and Polymechanocardiography.

RESULTS

In T2DM group, 23.2% had none and 29.2% had severe arterial stiffness. In healthy control group, 41% had none and 10% had severe arterial stiffness ($p < 0.0001$). Control group had 68% subjects with “none” arterial stiffness and 0% with severe arterial stiffness. Uncontrolled DM group had only 11.7% subjects with “none” arterial stiffness, 42.2% subjects with mild and 37% with severe arterial stiffness ($p < 0.0001$). A statistically significant association was found between microvascular complications of T2DM (retinopathy, neuropathy, and nephropathy) with arterial stiffness. ($p < 0.0001$).

CONCLUSION

Glycemic control influences arterial stiffness in T2DM patients irrespective of the duration of diabetes and is associated with severity of arterial stiffness in type 2 DM. The study establishes a relationship between microvascular complications of diabetes and arterial stiffness.

A Clinical Study of Mucocutaneous Manifestations in Diabetes Mellitus Patients

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INTRODUCTION

Diabetes mellitus is the most common endocrine disorder with increasing incidence. 30% of diabetic persons have some type of mucocutaneous involvement, from trivial to life threatening during the course of their chronic disease. The aim was to study the prevalence of mucocutaneous manifestation in diabetes mellitus in our locality and to analyse the histopathological spectrum of these lesions.

METHODS

It was a prospective study of diabetic patients with mucocutaneous lesions attending the Department of Medicine over a period of two years from August 2017 July 2019. As per exclusion and inclusion criteria, material from 163 cases by FNAC, scrape cytology, and biopsy depending on the type of lesion was collected. Culture and sensitivity and gram staining were also performed in necessary cases.

RESULTS

After exclusion of 3 cases due to inadequate material obtained, total 160 case results were analysed. Analysis showed that mucocutaneous lesions have slightly more predilection for male gender (57%) and age between 51-60 years (41%). Infections were the most common lesions in diabetics constituting 48%. Dermatophytes (45%) and candida species (39%) were the most common pathogens. Most of the parameters were correlated with other studies.

CONCLUSION

Diabetics are susceptible to mucocutaneous lesions that are uncommon in non-diabetics. Whenever any patient present with multiple mucocutaneous manifestations, check for diabetes immediately.

Comparative Study of Unilateral versus Bilateral Spinal Anaesthesia for Onset, Level of Sensory Block with Haemodynamic Effects in Lower Limb Surgeries at Equal Dose of 0.5% Bupivacaine Heavy

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INTRODUCTION

The study was undertaken to evaluate and compare unilateral and bilateral spinal anaesthesia for onset, level of sensory block and haemodynamic stability at equal dose of 0.5% bupivacaine heavy by same speed of injection, at same level of intrathecal injection.

METHODS

Sixty adult patients of ASA grade I and II between the age of 18 to 60 years were divided into two groups. At L3-L4 level, at speed of 1ml/20 sec, inj 0.5%, 2.0ml (10 mg). Bupivacaine heavy was given to group B (n=30) patients in sitting position and then they were given supine position immediately and given to group U (n=30) patients with affected limb in dependent position and kept in same lateral position for 20 minutes. Vital parameters, onset of sensory block at dermatome L1 level, highest level of sensory block were noted.

RESULTS

The most frequent time to onset of sensory block in the unilateral block was 6-8 minutes as compared to 4-6 minutes in bilateral block. None of the patients in the unilateral block experienced hypotension, but four patients (13.33%) in the bilateral block had episode of hypotension. In unilateral block highest level of sensory block was T9 in 46.67% patients while in bilateral block it was T10 in 43.33% patients. There were least side effects in unilateral block (p=0.145).

CONCLUSION

An exclusively unilateral block affects the sensory, motor, and sympathetic functions on the operative side only and provides advantage over bilateral spinal block leading to better haemodynamic stability.

A Clinico-epidemiological Study of Dengue Patients of Paediatric Age Group at a Tertiary Care Hospital of Western Rajasthan and to Determine the Morbidity Profile of these Patients Based on their Platelet Indices at Admission

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INTRODUCTION

In Dengue correlation of parameters like platelet count and MPV with bleeding and severity of the disease can be a predictor of disease outcome. This study was designed to determine the incidence and clinico-epidemiologic profile of dengue patients in paediatric age group presenting to a tertiary centre and to find out the relationship between the platelet indices at admission and morbidity profile of these patients.

METHODS

The study was an observational epidemiological study conducted on 49,711 patients of paediatric age group (up to 18 years) over a period of one year.

RESULTS

Incidence of dengue was found to be 0.42% of the total IPD. Maximum (93.8%) were admitted between the months of September to December. Fever was the most common (95.23%) presenting symptom. Shock was more frequently seen with high MPV and bleeding manifestations were more common with low MPV. Almost 80% patients were admitted with low PCT which was associated with longer duration of hospital stay, and fluid therapy, required ICU care more frequently, required more time to recover from severe TCP, landed up in shock more frequently, and required more blood product transfusion.

CONCLUSION

High MPV, PLCR, PDW, and low PCT were associated with longer duration of hospital stay and fluid therapy given, longer time taken to recover from thrombocytopenia, more frequent ICU care requirement, liver and renal function derangements and they landed up in shock more frequently.

Study of Thyroid Dysfunction in HIV Seropositive Patients on Highly Active Anti Retro Viral Therapy (HAART)

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INTRODUCTION

Subtle alterations in thyroid function tests are more common in HIV infection and at times detectable in the early phase of disease as well as in the late phases. The aim of the present study was to study the thyroid dysfunction in newly diagnosed seropositive HIV patients initiating HAART and pattern of change in thyroid profile with measurement at baseline, after 6, and 12 months of HAART and correlation between changes in thyroid function with CD4 cell count at 0, 6, and 12 months.

METHODS

The study included 60 newly diagnosed HIV seropositive patients registered at ART Centre JLN Hospital, Ajmer during the period of January 2018 to October 2019. After taking written consent of the patients and relevant history, these patients were subjected to complete clinical examination. Subjects with HIV serology positive by ELISA test and on HAART regimen were included and patients with comorbidities like Tuberculosis, diabetes, CKD, malignancy, known case of thyroid disorders, and patients on drugs that cause thyroid abnormality were excluded.

RESULTS

Out of 60 patients, 65% were males and 35% females. 10% cases were found to have subclinical hypothyroidism and 3.33% cases had overt hypothyroidism. The correlation between CD4 counts and thyroid dysfunction was found to be statistically significant ($p=0.02$).

CONCLUSION

Subclinical hypothyroidism was the most common thyroid abnormality observed followed by overt hypothyroidism. Thyroid abnormalities vary with the type and duration of HAART regimen.

Comparative Study of Distal Femoral Locking Compression Plate and Tens Nail versus Lateral Distal Femur Plate in Management of Distal Femur Fracture Cases

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INTRODUCTION

The fractures of distal femur are often unstable and comminuted and difficult to treat. The purpose of the present study was to compare functional outcome between both column fixations by using distal femoral locking compression plate on lateral side and then using TENS nail on medial side to obtain support of medial column versus lateral distal femoral plate.

METHODS

A total of 80 patients with distal femur fracture with intercondylar extension were included. Out of these, 40 were treated with distal femoral locking compression plate (DFLCP) and support of medial wall with TENS nail and 40 with DFLCP. The final outcome was assessed according to Schatzker and Lambert scoring system. The complications were also noted.

RESULTS

The result was excellent in 12, good in 15, fair in 10, and poor in one in DFLCP with TENS nail group. The result was excellent in 8, good in 12, fair in 12, and poor in 5 in DFLCP group. The average time to union was 17.7 weeks in DFLCP with TENS nail group and 19.9 weeks in DFLCP group. Complications include superficial wound infection in three patients, secondary osteoarthritis in 17 patients, and varus angulation in three patients in DFLCP with TENS nail group. In DFLCP group varus angulation was in 11 patients.

CONCLUSION

The use of TENS nail for medial femoral defect along with distal femoral locking compression plate may eliminate the need of plate on medial side. The varus angulation that occurs with defect is decreased and additional long incision and operative time is avoided.

Factors Influencing the Outcome of Thrombolysis in Acute ST-Segment Elevated Myocardial Infarction Based on Clinical and ECG Criteria

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INTRODUCTION

The aim of the present study was to find out the overall success rate of thrombolysis in acute STEMI based on electrocardiography (ECG) criteria and to assess the effect and correlation of various parameters.

METHODS

A total of 100 randomly selected STEMI patients satisfying the inclusion criteria were studied at Government Medical College, Kota. All patients underwent thrombolysis with Streptokinase. ST-segment elevation on ECG was assessed before and after 90 minutes of completion of thrombolytic therapy.

RESULTS

A total of 57 patients (57%) showed successful thrombolysis using Streptokinase. The success rate was significantly higher in those patients presenting within 3 hours than later ($p < 0.05$) and have inferior wall MI than other MI ($p < 0.05$). The patients presenting with higher Killip class had less success rate ($p < 0.05$). Other risk parameters (age, sex, pre-infarction angina, diabetes, smoking, hypertension, and total WBC count) did not affect the outcome significantly ($p > 0.05$).

CONCLUSION

The overall success rate of thrombolysis with Streptokinase was 57%. An earlier presentation, inferior wall infarction, and Killip class-1, are associated with higher successful thrombolysis.

The Prevalence of Internet Addiction and its Impact on Academic Performance and Mental Health Correlates among High School Students: A Cross-Sectional Study

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INTRODUCTION

Internet addiction (IA) has become a global mental health problem. The aim of present study was to study the prevalence of IA among high school students of Jodhpur city and also to find its correlation with sociodemographic variables, internet usage patterns, academic performance, and mental health.

METHODS

A cross sectional study was conducted on 540 students of six english medium schools of Jodhpur city chosen by convenient sampling and analyzed by face to face interviews. Young's Internet Addiction Test and 21 item Depression Anxiety and Stress Scale were applied to all students and were then evaluated for association of IA with socio demographic factors, academic performance and for depression, anxiety, and stress. Academic performance was assessed by marks obtained in Board examinations. Student "t" test, Chi square test, and Pearson's correlation coefficient were applied.

RESULTS

Prevalence of IA was 4.81% with male predominance. Mean age of students was 15.80 ± 0.69 years. Age, religion, and course of study showed significant association with IA. IA was negatively correlated with academic performance and was correlated positively with depression, anxiety, and stress.

CONCLUSION

The results of the study shall help to generate awareness regarding harmful effects of the IA and its consequent psychological distress on school students.

A Comparative Study of 3 Stitch Mesh Hernioplasty versus Conventional Lichtenstein Inguinal Hernia Repair

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INTRODUCTION

Inguinal hernia is one of the most commonly performed surgical operation. The aim of this study was to compare the outcome of tension free mesh fixation using three stitches with conventional Lichtenstein mesh hernia repair.

METHODS

This prospective randomized study included 59 patients divided into 2 groups A (30 patients) and B (29 patients) who presented with inguinal hernia under surgical units. Group A patients were operated using Lichtenstein technique while group B patients were operated using 3 stitches technique and outcomes were compared.

RESULTS

Out of the 2 groups studied, operative time was 5.12 minutes less in group B than group A. Pain assessment at postoperative day 1, 3, 7 and 15 were also significantly lower in group B. With regards to complications, seroma rates were 10% (group A) v/s 0% (group B). Induration and swelling were 16.67% (group A) v/s 6.67% (group B). Wound infection rates were 3.33% (group A) v/s 0% (group B) while mesh infection and hematoma were not noticed in both groups. Mean hospital duration was 4.43 days (group A) v/s 4.10 days (group B). Pain at end of one month was 30% (group A) v/s 3.33% (group B) and at end of 3 month was 20% (group A) v/s 0% (group B). One recurrence was noted in group B patients.

CONCLUSION

The study concluded that 3 stitch mesh fixation is simpler and superior than conventional Lichtenstein repair in short term outcomes and certain longterm outcomes like chronic groin pain. However, further studies and longer follow-ups are needed to comment on recurrences.

Clinico-epidemiological and Pathological Profile of Lung Cancer: A Hospital Based Observational Study in Western Part of Rajasthan

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INTRODUCTION

Lung cancer is the most common cancer causing deaths in men and women world-wide and is responsible for over 1 million deaths annually. Advances in surgical techniques and combined therapies, lung cancer remains a disease with a poor prognosis. The aim of this study was to evaluate the clinicoepidemiological and pathological profile of patients with diagnosis of lung cancer presenting and to determine the proportion of any form of Silica dust exposure in lung cancer patients.

METHODS

An observational study was conducted on 108 patients with histo-pathological proven lung cancer (diagnosed previously), of either gender, above 18 years age.

RESULTS

The mean age of the patients was 57.50 years and male, female ratio was 5.8:1. Cough was the most common presenting symptom (77.78%) followed by chest pain (62.33%). Clubbing was most commonly associated with squamous cell carcinoma. Most common radiological presentation was consolidation (42.59%) followed by mass lesion (30.55%). Most common histo-pathological type of lung cancer was squamous cell carcinoma 47 (43.52%) followed by adenocarcinoma 42 (38.89%). Small cell carcinoma was present in 15 (13.89%) and large cell carcinoma was present in 4 (3.70%) patients.

CONCLUSION

Squamous cell carcinoma still remains the commonest histological subtype followed by adenocarcinoma.

Risk Factors, Complications and Management Strategies of PROM: An Observational Study at Tertiary Centre of Western Rajasthan

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INTRODUCTION

Pre mature rupture of membrane is one of the most common complication of pregnancy that has a major impact on neonatal outcome. This study aimed to identify the risk factors, complications and various management strategies of PROM.

METHODS

This was a 6 month prospective study conducted at a tertiary care centre. The cases which were admitted with provisional diagnosis as pre labor rupture of membranes of 28 and >28 weeks of gestation were further analysed for risk factors, complications, and management strategies.

RESULTS

Out of 10041 antenatal cases registered during the defined period, the incidence of women presenting with PROM was 5.35% (n=200). Urogenital tract infection (20.5%) was the leading risk factor of PROM. Majority of women 154 (77%) were induced, 14 (7%) were left for spontaneous onset of labour, and rest 32 (16%) needed further augmentation. Maximum women 133 (86.36%) were induced with Dinoprostone gel and rest 21 (13.64%) were induced with Misoprostol per vaginally. The most common maternal complication of PROM was febrile condition (14.5%) and 24.3% of babies were admitted in NICU. These were mainly due to low APGAR score (22.1%).

CONCLUSION

PROM is an enigmatic entity associated with panoply of risk factors and complications.

A Comparative Study of Epidural Ropivacaine Plus Dexmedetomidine and Ropivacaine Plus Ketamine in Patients Undergoing Lower Limb Surgeries

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INTRODUCTION

This study evaluates the analgesic efficacy of epidural Ropivacaine+Dexmedetomidine and Ropivacaine+Ketamine in terms of onset and duration of analgesia, maximum level of motor and sensory block, effect of these drugs on HR and BP, rescue analgesia requirement, and side effects of these drugs.

METHODS

The study was carried out in MGH hospital attached to Dr SN Medical College Jodhpur. Total 68 patients were analysed who were randomly allocated in 2 groups RD (Ropivacaine + Dexmedetomidine) and RK (Ropivacaine + Ketamine) (34 each).

RESULTS

Mean value of time for resolution of sensory blockade to L5 in group RD was (9.77±2.38) and in group RK was (7.79±1.83), p value 0.0003. Group RD had more time for resolution of sensory blockade to L5. Mean value of time for resolution of motor blockade to grade 6 in group RD was (6.53±2.44) and in group RK was (4.58±0.83), p value <0.0001. Side effect profile was comparable in both the groups and they were managed easily.

CONCLUSION

Drugs in both the groups were safe, effective, and provided adequate post operative analgesia to the patients. There was no significant difference in onset time of sensory and motor block but relatively lesser side effects were noted with Ropivacaine plus Ketamine.

A Study on Cardiovascular Involvement in Hospitalized Cases of Swine Flu

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INTRODUCTION

Swine flu primarily affects respiratory system but there are case reports on involvement of cardiovascular system. The study was done to evaluate cardiovascular involvement in swine flu.

METHODS

A total of 79 cases of swine flu confirmed by RT-PCR and admitted in tertiary care hospital were studied. Cardiovascular involvement was evaluated by clinical history and examination, standard 12 lead ECG, chest X-Ray, CPK-MB, NT-proBNP, and Troponin I. Other laboratory investigations like CBC, RFT, LFT, blood sugar, CRP titre, and ABG were also done. All patients were treated as per WHO guidelines and followed-up during hospital stay.

RESULTS

There were 35 (44.3%) males (mean age 52.89 ± 17.7) and 44 (55.7%) females (mean age 47.36 ± 16.79). Thirteen cases (16.46%) had one or more underlying pre-existing cardiovascular disease (PCVD). Cardiovascular manifestations at the time of admission were breathlessness (72.2%), chest pain (28.8%), palpitation (16.5%), pre-syncope (10.1%), syncope (7.6%), and giddiness (5.1%). ECG manifestations were prolonged QTc interval, RBBB, LBBB, AF, 1ST degree AV block, and ST segment elevation. Evaluation of various cardiac biomarkers showed involvement of cardiovascular system in 65.8% of the cases where at least one of the markers (Trop I, NT-proBNP, CPK-MB) was elevated. Sixteen cases (20.2%) required mechanical respiratory support out of which 15 cases (93.8%) had evidence of cardiovascular involvement. Overall mortality was 8.9% and all of them were having cardiovascular involvement.

CONCLUSION

Cardiovascular system involvement in hospitalized cases of swine flu is found to be very common and associated with high morbidity and mortality.

To Study Serum Mannose Binding Lectin Levels in Patients with Diabetes with and without Diabetic Retinopathy at Tertiary Care Hospital, Bikaner, Rajasthan

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INTRODUCTION

Diabetic retinopathy is a leading cause of blindness and vision impairment in working age population around the world. A reliable screening biomarker of diabetic retinopathy would be of tremendous benefit in detecting population in need of further assessment and treatment. Therefore, the study was conducted to find out association between mannose binding lection (MBL) and diabetic retinopathy.

METHODS

This was an observational study conducted on 200 diabetic patients during 12 months period. Serum MBL level was measured by enzyme linked immunesorbent assay. Retinopathy was graded from digital retinal photography, taken with non mydriatic autofundus camera and classified according to early treatment diabetic retinopathy study (ETDRS). Correlation of MBL, hsCRP, duration of disease, HbA1c, other predictors with diabetic retinopathy were assessed by Pearson correlation coefficient. Statistical analysis was performed using SPSS version 17.0.

RESULTS

Serum MBL levels were significantly higher in diabetic patients with retinopathy as compared to those without retinopathy ($p < 0.001$). Mean MBL level showed a highly significant correlation with severity of retinopathy ($p < 0.001$). On applying Pearson correlation, maximum association of diabetic retinopathy was seen with MBL ($r = 0.783$) followed by hsCRP ($r = 0.441$), HbA1c ($r = 0.346$), and duration of diabetes ($r = 0.184$).

CONCLUSION

MBL is a novel independent marker of diabetic retinopathy in Indian population, suggesting a possible role of MBL in pathogenesis of diabetic retinopathy.

Comparative Study of Induction in Primigravida with PROM and those with Intact Membrane at Term

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INTRODUCTION

An elective induction is defined as the direct initiation of labour without a medical or obstetrical reason. Elective induction at term does not seem to pose an increased risk to the women and to her foetus in carefully selected populations. This study aimed to compare induction in primigravida with prelabour rupture of membranes (PROM) and those with intact membrane at term.

METHODS

Total 200 primigravida cases were studied and divided into 2 groups, 100 with prelabour rupture of membranes and 100 with intact membrane. Elective induction with Dinoprostone gel instillation pervaginally/intracervically was done in both the groups with unfavourable cervix and comparative study was done in terms of mode of delivery, induction delivery interval, caesarean section rate, failure of induction, maternal complications, and neonatal outcome.

RESULTS

Mean gestational age in group A was 38.37 weeks while in group B was 38.5 weeks. Mean induction delivery interval in group A was 8.61 hours and in group B was 8.71 hours. In group A, 52% women had vaginal delivery while 48% women delivered by caesarean section. In group B with intact membranes, 72 % women delivered by vaginal route while 28% women delivered by LSCS. C-section rate was more in PROM group. Incidence of maternal complications in both the groups differed slightly. In present study APGAR score at 5 min of majority of newborn was more than 8.

CONCLUSION

Labour induction for PROM at term in nulliparous women with an unfavourable cervix is associated with longer duration of second stage of labour and a higher risk of caesarean delivery for failure to progress in comparison with intact membrane group.

A Study to Evaluate Indian Diabetes Risk Score (IDRS) as a Screening Tool for Diabetes in a Tertiary Center in Jodhpur

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INTRODUCTION

Modern medical care uses a vast array of lifestyle and pharmaceutical interventions aimed at preventing and controlling hyperglycemia. In addition to ensuring the adequate delivery of glucose to the tissues of the body, treatment of diabetes attempts to decrease the likelihood that the tissues of the body are harmed by hyperglycemia.

METHODS

The study included all individuals >20 years of age attending the outdoor clinics, indoor wards and general population (attendants, accompanying people) and who underwent fasting blood glucose level testing. IDRS was applied to all individuals, then all subjects were tested for fasting (8 hours fasting) blood glucose level and/or 2 hours postprandial blood glucose level. Diagnosis of diabetes was based on American Diabetes Association 2010 criteria.

RESULTS

In our study 600 subjects were studied. The prevalence of undiagnosed diabetes mellitus was significantly high in community with a prevalence of 9.33%. The results show that an Indian diabetes risk score cut off value ≥ 60 has the optimum and significant sensitivity of 87.5%, and specificity 69.3%. Among total study subjects 199 (33.17%), 371 (61.83%), and 30 (5 %) have respectively low, moderate, and high risk of diabetes that indicate 2/3 of subjects are under moderate to high risk group.

CONCLUSION

IDRS is a simple, reliable and easy to use tool for mass screening of the high risk individual of diabetes mellitus in our country regardless of the demographic variation in the prevalence of diabetes.

A Study to Find Out Status of Bacterial Vaginosis, Trichomoniasis, and Candidiasis in Women with Vaginal Discharge

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INTRODUCTION

Genitourinary tract infections are among the most frequent disorders for which patients seek care from gynecologists. Of all the infections known, bacterial vaginosis (BV) accounts for 40-50% cases, monilial infection for 20-25% cases, and trichomonal infection for 15-20% cases. Bacterial vaginosis (BV) is considered the most common cause of vaginal discharge among women in reproductive age. This study aimed to know the status of bacterial vaginosis, trichomoniasis, and candidiasis in women with vaginal discharge and to study the signs and symptoms associated with these three infections, so as to ensure a rationale choice of antibiotic therapy of vaginal discharge.

METHODS

This was a prospective cross-sectional study carried out in the outpatient Department of Obstetrics and Gynecology, for a period of one year.

RESULTS

The prevalence of microbial positivity in present study was 79.9%. Bacterial vaginosis was the most common diagnosis (47.0%) followed by candidiasis (23%), trichomoniasis (7.7%) and mixed infection (bacterial vaginosis + trichomoniasis) (2.2%), respectively.

CONCLUSION

Clinicians need to be aware of emerging epidemiological data, the different presentations of vaginal discharge, and the approach of their management so that patients can be treated appropriately.

Long Term Effect of 0.06% Trypan Blue Dye (Irrigation in the Capsular Bag) - To Prevent Posterior Capsular Opacification

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INTRODUCTION

Trypan blue is a vital dye that has been shown to reduce the density and viability of LECs (lens epithelial cells) when used on the outer surface of the anterior capsule. The aim of this study was to study the effect of trypan blue dye (0.06%) on posterior capsular opacification (PCO) during capsular bag irrigation in eyes undergoing phacoemulsification and also compare its effect as against BSS (Balanced salt solution) used in same manner after 12 months of surgery.

METHODS

The observational study was conducted on 200 patients who underwent ECCE, the patient included in the study were between 40 - 60 years with visual acuity of 6/60 or less and cataract types grade nucleus II/III cataract and nuclear sclerosis. All the patients were divided into two groups, in group A capsular bag irrigation during undergoing phacoemulsification was done by trypan blue dye (0.06%) and in group B by BSS. PCO was assessed by an independent observer. Retroillumination slit lamp images was obtained at 12 months.

RESULTS

The mean age of patient in dye group was 52.3 years and in control group mean age was 52.9 years. In dye group, 73 % were male and 27 % were female while in BSS group, 56 % were male and 44 % were female. The mean total PCO score in dye group was 0.16 ± 0.23 with mean area was 100 ± 0 . In control group the mean total PCO was 0.31 ± 0.40 with mean area was 100 ± 0 . There was a significant difference between groups as the p value is < 0.05 .

CONCLUSION

The study shows a strong evidence of trypan blue dye causes significant reduction in PCO when injected into the capsular bag.

A Cross Sectional Study of Factors Associated with Suicidal Behaviour and their Relation with Severity of Suicide Attempt among Patient Attending Psychiatric OPD of SMS Medical College, Jaipur

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INTRODUCTION

The aim of the study was to assess the risk factors associated with suicide attempt and to find out their relation with severity of suicide attempt.

METHODS

This was a cross-sectional observational study conducted on 100 consecutive patients of attempted suicide. Presumptive Stressful Life Events Scale, Mini-International Neuropsychiatric Interview, and Inter-national Personality Disorder Examination were applied. Three groups were made on basis of scores of Risk-Rescue Rating Scale: mild, moderate, and severe suicide attempters.

RESULTS

Majority of the suicide attempters belonged to 21-30 years age group (60%), middle socio-economic status (79%), were married (65%), and from nuclear family (51%). The most frequent reason for attempting suicide was inter-personal problems. At least one psychiatric disorder on axis-I or personality disorder on axis-II was seen in 93% of the subjects. Axis-I psychiatric disorder was seen in 78% of the subjects, most frequently major depressive disorder. 51% of suicide attempters had at least one personality disorder. Factors associated with higher lethality of suicide attempt were male gender, presence of significant undesirable, and total life events in last 6 months, 1 year and life time, and presence of psychiatric morbidity and personality disorder.

CONCLUSION

Improving coping abilities and social support, inter-personal psychotherapy or counselling to tackle inter-personal issues both at pre-vention and post-vention levels may reduce the suicide attempts significantly.

A Comparative Study of Efficacy of Intralesional Measles Mumps Rubella (MMR) Vaccine and Autoimplantation for Treatment of Recalcitrant, Periungual, and Palmoplantar Warts

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INTRODUCTION

Warts are benign epidermal proliferations caused by infection of keratinocytes with *HPV (Human papilloma virus)* visible as well-defined hyper-keratotic protrusions. Intralesional MMR vaccine and auto implantation method both act by stimulation of the patient's immune system (cell mediated immunity). This clears not only the local warts but also distant warts with lesser side effects. The aim of this study was to compare the efficacy of intralesional Measles Mumps Rubella (MMR) vaccine with autoimplantation in treatment of recalcitrant, periungual and palmoplantar warts.

METHODS

A prospective randomized control trial was conducted at a tertiary centre on 160 patients with warts. These patients were randomized into two groups of 80 each. Group A was treated with 0.3 ml of intralesional reconstituted MMR vaccine at interval of 3 weeks, maximum up to 3 sittings and group B was treated with auto implantation once only.

RESULTS

In group A, 86% (66) and in group B, 71% (53) patients showed excellent response (>90% reduction in number of warts), assessed by pre and post intervention photographs at every visit and follow up upto six months for recurrence. No significant side effects were noted.

CONCLUSION

Intralesional MMR vaccine and autoimplantation method both act by stimulation of the patient's immune system. Measles Mumps Rubella (MMR) vaccine is found to be more efficacious than autoimplantation in treatment of recalcitrant, periungual, and palmoplantar warts.

A Retrospective Study of Cases of Carcinoma Breast

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INTRODUCTION

Breast is an apocrine gland, a modified sweat gland derived from ectoderm, acts as secondary sexual organ in females. It is rudimentary in males. It acts as mammary glands in females which produce and secrete milk to feed infants. This study was carried out to find out the association of size of tumor with number of positive axillary lymph nodes and metastasis in operated patients.

METHODS

The study participants were 50 female patients of breast cancer, from all age group admitted in Surgery ward. The participants were subjected to various investigations including routine, USG breast and axilla, mammography, and specific to find out any metastasis which included X-ray chest, dorsal spine, pelvis, USG abdomen and pelvis, CECT Abdomen and pelvis, HRCT-thorax and MRI spine if required so as to reach final preoperative clinical stage of disease.

RESULTS

In this series, it was seen that for tumors less than 2 cm or 2 cm average size 2 cm (in both clinically/HPE), the average number of positive lymph node was zero (clinically), 3.5 (HPE). For tumor >2-5cm with an average being size 4.15 cm (clinically) and 4.05 cm (HPE), the average number of lymph nodes were found to be 1.13 clinically and 3.92 on the HPE. For tumor 5 cm or >5 cm. with an average being 6.80 cm (clinically) and 6.4 cm (HPE), the average number of lymph node obtained was 2.4 and 8.8, respectively.

CONCLUSION

As the size of breast tumor increases, so does the average lymph node number increases (both clinically and histopathologically positive for metastasis).

Comparative Study of Conventional PAP Smear v/s Liquid Based Cytology in Perimenopausal Age Group Women in Cervical Screening

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INTRODUCTION

To overcome the limitations of conventional Pap smear (CPS) liquid based cytology (LBC) was introduced in 1996. The study was aimed to compare CPS with LBC in perimenopausal women for cervical screening.

METHODS

This study was carried out on 100 randomly selected women of aged 40-55 years who presented with symptoms of vaginal discharge, lower abdomen pain, post coital bleeding, irregular periods and with cervical lesion. Specimen was collected for both conventional pap smear and liquid based cytology then colposcopic guided biopsy was performed in all cases.

RESULTS

LBC showed abnormality in 30 cases and in 16 cases of Pap smear. The rate of unsatisfactory smear was low in LBC than Pap smear (1% v/s 5%). The rate of prediction of infectious agent was more with LBC (12%) than Pap smear (3%). It is noted that low grade squamous intraepithelial lesion (16%) and high grade squamous intraepithelial lesion (10%) prediction was more with LBC than Pap smear (LSIL 5%, HSIL 1%) and it was statistically significant. The prediction of Atypical Squamous cell (ASC) category was more with Pap smear than LBC (8% v/s 2%). The false negative rate of Pap smear was more than LBC (49% v/s 4%). The sensitivity for detection of a histologically proven lesion is significantly higher in LBC compared to Conventional Pap smear (96% v/s 51%).

CONCLUSION

Liquid Based Cytology is better than Conventional Pap test in detecting preinvasive cervical lesions.

A Prospective Longitudinal Study of Clinical Outcome and Quality of Life Assessment in Patients with Chronic Rhinosinusitis after Nasal Irrigation using Normal Saline with Budesonide after Functional Endoscopic Sinus Surgery

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INTRODUCTION

The aim of this study was to assess quality of life assessment in patients with chronic rhinosinusitis (CRS) after nasal irrigation using normal saline with budesonide after functional endoscopic sinus surgery.

METHODS

The study included 50 cases fulfilling criteria of CRS according to EPOS paper 2012; CRS patients with or without nasal polyposis who had not improved after medical treatment. Preoperative CT scans were assessed using Lund-Mackay scoring, rigid nasal endoscopic was performed and graded according to the modified Lund Kennedy endoscopy scale (LKES) and SNOT-22 was measured, following which FESS was performed and these scorings were assessed 3rd and 6th month postoperatively following use of Budesonide nasal irrigation and the compliance was assessed.

RESULTS

Nasal blockage was the most common symptom followed by rhinorrhoea. The preoperative total score on diagnostic nasal endoscopy was 8.26 ± 3.65 and post operative after 3rd month and 6th month was 2.80 ± 1.68 ($p < 0.001$) and 2.76 ± 1.62 ($p < 0.001$), respectively. Preoperative total SNOT-22 was 43.56 ± 18.33 and postoperative after 3rd month and 6th month was 14.42 ± 4.71 ($p < 0.001$) and 21.82 ± 7.819 ($p < 0.001$). Maximum patients ($n=41$) had nasal irrigation between 21-30 times at 2 weeks follow up. The mean of nasal irrigation was 72.54 ± 10.73 .

CONCLUSION

The VAS scores showed that the major CRS symptoms, rhinorrhoea and fatigue improve significantly after ESS. With more compliance of patients for Budesonide nasal irrigation, there is less chances of postoperative polyp, synechia and crusting.

Comparative Study between Intralesional Vitamin D3 and Intralesional Bleomycin in the treatment of Cutaneous Verrucae

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INTRODUCTION

Out of intralesional therapeutics, for treatment of verrucae Vitamin D3 appears to be more promising but least evaluated. Therefore, we planned to evaluate the efficacy of intralesional Vitamin D3 in various types of cutaneous verrucae and results were compared with intralesional bleomycin.

METHODS

A total of 200 patients of cutaneous verrucae with varying size and duration were included in the experimental randomized comparative study, and divided into two groups. Group A, (N=100) received 0.2-0.5 ml intralesional Vitamin D3 (600,000 IU, 15 mg/ml) and Group B, (N=100), received intralesional Bleomycin (1 mg/ml) into the base of verrucae. A maximum of 5 verrucae were injected per session at 3 weeks interval until resolution or for a maximum of 4 sessions. Patients were followed up for 6 months after the last injection to assess the clearance status and detect any recurrence.

RESULTS

In group A (Vitamin D3), 'complete response', 'partial response' and 'no response' were observed in 85.07%, 6.74% and 8.17%, respectively after 4 sessions. Recurrence rate was 0.81% after 6 months. In Group B (Bleomycin), 'complete response', 'partial response' and 'no response' were found in 77.99%, 10.47% and 11.53% in the series. Recurrence rate was 1.71%, comparatively higher in group B.

CONCLUSION

The efficacy of intralesional Vitamin D3 was found significantly higher as compared to intralesional Bleomycin in the treatment of cutaneous verrucae with less recurrence rates. Vitamin D3 has an additional advantage of cost-effective treatment over Bleomycin.

Study of Serum Uric Acid Level as a Prognostic Factor in Chronic Kidney Disease: A Hospital Based Study

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INTRODUCTION

Chronic kidney disease is defined by the presence of kidney damage or decreased kidney function for three or more months irrespective of the cause. Hyperuricemia cause kidney injury including afferent arteriopathy, glomerulosclerosis, and tubulointerstitial fibrosis.

METHODS

This was a cross-sectional, prospective, randomized study comprising of 150 CKD patients of either sex, age 18 years or above attending the medical indoor or Intensive Care Unit. GFR was calculated by Modification of Diet in Renal Disease (MDRD). Patients less than 18 years of age, infected with HIV, having history of gout and hyperuricemia due to other cause, and taking antitubercular or thiazide drugs were excluded from this study.

RESULTS

Out of 150 patients, males and females were 65.33% and 34.66%, respectively. The mean age of study population was 56.48 years and maximum number of patients 81 (54%) belonged to age group of 56-70 years. Ninety patients were with normal serum uric acid level and 60 had raised serum uric acid level. Maximum and minimum number patients belonged to stage 5 CKD and stage 1 CKD, respectively. The study showed that complications like diabetes mellitus, anemia, cardiovascular dysfunction, lipid abnormalities, and tuberculosis are mostly associated with hyperuricemia patients.

CONCLUSION

Serum uric acid level is an important risk factor in progression of chronic kidney disease. This highlights the need of early investigation and treatment of high serum uric acid level so that complications do not occur.

A Study on Relationship of Microalbuminuria and Mean Platelet Volume with Chronic Obstructive Pulmonary Disease and Its Severity

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INTRODUCTION

Microalbuminuria (MAB) is an important risk factor for cardiovascular disease, and it may be seen due to hypoxaemia in patients with COPD. COPD is characterized by airflow limitation and inflammation and mean platelet volume (MPV) may be used as a marker of inflammation. The present study was undertaken to find the presence of MAB in COPD, association between MPV and COPD, and relationship of MAB and MPV with severity of COPD by FEV₁, BODE Index, PaO₂, mMRC grade, and 6MWD test.

METHODS

100 patients with COPD (50 with acute exacerbation and 50 with stable COPD) and 30 healthy controls were enrolled in the study. Spot urinary albumin creatinine ratio (MAB/UACR), mean platelet volume (MPV), spirometry, arterial blood gases, renal function tests, and BODE index [body mass index, airflow obstruction (FEV_{1(%predicted)}), dyspnoea (mMRC), and exercise index (6 MWD test)] were assessed. Frequency of MAB and MPV was compared between cases and controls.

RESULTS

MAB and MPV were significantly higher in acute exacerbation group of COPD compared with control and stable COPD ($p < 0.001$). MAB and MPV increased with severity of COPD ($p = 0.001$).

CONCLUSION

In the present study, MAB was found in all COPD patients and MPV remained in normal range. Increased MAB and MPV was associated with acute exacerbation and also increased with severity of COPD.

Comparison of Efficacy of 1% Chloroprocaine Alone and in Combination with Fentanyl and Clonidine in Spinal Anaesthesia for Lower Limb Surgeries: A Prospective Randomized Double Blind Study

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INTRODUCTION

In recent years, subarachnoid block gained popularity with addition of various adjuvants to Chloroprocaine to increase its efficacy and duration. This study aimed to evaluate the efficacy of intrathecal Chloroprocaine (1%) alone and with Fentanyl or Clonidine used as an adjuvant for infraumbilical surgeries.

METHODS

A prospective cross sectional study was conducted on 100 patients. PAH was identified by echocardiography. Among 100 patients, 50 patients included as a tuberculosis destroyed lung and 50 patients include COPD and echocardiographic data were evaluated for PAH.

RESULTS

The time of onset of sensory and motor block were significantly short in group CF and CC ($p < 0.05$), duration of motor block was prolonged in group CF and CC ($p < 0.05$). Two segment regression to S1 was prolonged in group CF and group CC as compared to group C ($p = 0.001$) without any significant hemodynamic changes and side effects.

CONCLUSION

Intrathecal Clonidine when compared to Fentanyl was associated with similar onset of sensory and motor blockade with prolonged duration of sensory and motor blockade, longer duration of time to demand of rescue analgesia, without increasing time to return of voiding function, with stable haemodynamics, and minimal adverse effects.

Utility of SOFA (Sequential Organ Failure Assessment) Score for Predicting In hospital Mortality of Elderly Patients with SIRS Criteria

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INTRODUCTION

SOFA scoring system has been largely evaluated in various conditions like ICU v/s non-ICU setting and septic v/s non-septic conditions and found to be useful in predicting mortality. The study aimed to predict in-hospital mortality in elderly patients (>60 years) with SIRS criteria and to identify possible etiology (infectious v/s noninfectious) in patients with increment of SOFA score.

METHODS

102 elderly patients (>60 years) with 2 or more SIRS criteria were included. SOFA score was calculated at admission and at 48 hour. Change in SOFA (DELTA SOFA) calculated and association of outcome with SOFA at admission, at 48 hours, and DELTA SOFA was assessed by statistical analysis

RESULTS

Mean age of patients was 69.7 years and mortality 35.29%. Mean SOFA score was higher in non-survivors (9.81 ± 4.006) than survivors (4.29 ± 3.076) at admission. Mean SOFA score at 48 hour in non-survivors was 11.43 ± 4.64 v/s 2.20 ± 2.366 in survivors and mean DELTA SOFA in non survivors was 2.65 ± 3.892 v/s -2.09 ± 2.104 in survivors. 70.8390 cases with incremental SOFA were culture negative and 29.16% case were culture positive which was statistically insignificant. Thus, suggesting that the infective etiology is not an important factor for increment of SOFA score.

CONCLUSION

SOFA score can predict in-hospital mortality in elderly patients.