

Abstract : Clinical Sciences

A Comparative Study of Efficacy of Rectal Misoprostol with I V Methyl Ergometrine and Intramuscular PGF2 α in Active Management of Third Stage of Labour

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INTRODUCTION

Third stage is the most crucial stage of the labour and if not managed properly, can become disastrous within minutes. This study was aimed to investigate the efficacy of various drugs in active management of third stage of labour (AMTSL).

METHODS

A total of 200 patients were studied which were divided into four groups (Misoprostol group, Ergometrine group, Carboprost group, and control group), each containing 50 patients.

RESULTS

Mean blood loss in 3rd stage of labour was seen least in Misoprostol group (139.20 ml) as compared to 152.00 ml, 168.80 ml, and 201.80 ml in Ergometrine, Carboprost and control groups, respectively ($p = 0.007$). The decrease in post-delivery hemoglobin was least in the Misoprostol group ($p = 0.022$). The mean duration of the third stage of labour in Misoprostol group was 6.92 minutes as compared to 9.34 minutes in control group ($p = 0.001$). None of the patients from the Misoprostol group had PPH ($p = 0.010$) and only 2 % of the patients had usual side effects of nausea, diarrhea, pain abdomen, and pyrexia.

CONCLUSION

Misoprostol can be used as a safe and effective alternative agent in active management of third stage of labour.

A Prospective Study of Coagulation Profile in Pre-Eclamptic and Eclamptic Patients and its Correlation with Clinically Significant Bleeding Tendencies at SMS Medical College, Jaipur

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INTRODUCTION

The present study intended to study coagulation profile in patients of pre-eclampsia and eclampsia and to find out relationship between bleeding tendencies and coagulation profile abnormalities in such women.

METHODS

This was a prospective hospital based study among 100 pregnant women which were divided into mild and severe preeclampsia and eclampsia. Blood sample for routine antenatal investigations and coagulation profile were sent.

RESULTS

Out of 100 patients, 40% cases had mild pre-eclampsia, 45% had severe pre-eclampsia, and only 15% patients had eclampsia. Thrombocytopenia was present in 54% cases. The risk of coagulopathy increased with worsening thrombocytopenia and severity of pre-eclampsia and eclampsia. Prolonged PT (18% cases) and prolonged aPTT (13% cases) showed statistically significant association with thrombocytopenia and occurrence of bleeding. Plasma fibrinogen was elevated in 74% cases. D-dimer increased in all severe pre-eclampsia cases but bleeding observed only when associated with decrease in platelets, increased PT, and aPTT.

CONCLUSION

A coagulation profile like PT, aPTT should be performed if serial platelet counts are in decreasing manner. If the coagulation profile is also deranged then there is need to be vigilant and planning to intervene the pregnancy before severe morbidity and mortality occurs.

A Comparative Study to Evaluate the Role of Chromo-hysteroscopy in Diagnosis of Endometritis in Absence of Macroscopic Abnormalities during Hysteroscopy at SMS Medical College, Jaipur

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INTRODUCTION

Chronic endometritis has been related to abnormal uterine bleeding, infertility, and recurrent miscarriages. This study aimed to evaluate the role of chromo-hysteroscopy in diagnosis of endometritis in absence of macroscopic abnormalities during hysteroscopy.

METHODS

This study included 60 women with varied indications over a period of one year. All women underwent hysteroscopy and in the absence of any macroscopic abnormalities, chromo-hysteroscopy using 1% methylene blue dye was done. The histopathological results of these samples were compared and analysed in relation with differential staining pattern on chromohysteroscopic findings and diagnostic accuracy was calculated.

RESULTS

Out of 60 patients, majority of cases 27 (45%) were presented with complain of abnormal uterine bleeding followed by 24 (40%) with history of infertility. Most patients (77%) had normal (proliferative and secretory) endometrium. With the help of chromohysteroscopy, 11 (18.33%) patients of chronic endometritis were diagnosed which were missed on conventional hysteroscopy. The sensitivity, specificity, PPV, and NPV of focal dark staining for detection of chronic endometritis was 72.73%, 81.63%, 47.06%, and 93.02%, respectively.

CONCLUSION

Chromohysteroscopy appears to have potential in improving the efficacy of conventional hysteroscopy by detecting the missed endometrial pathologies.

A Comparative Study of Annular M-Mode Displacement by Fetal Echocardiography in Fetuses with Intrauterine Growth Restriction and Appropriate for Gestational Age at SMS Medical College, Jaipur

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INTRODUCTION

Fetal growth restriction (FGR) affects 5-10% of pregnancies. Fetal hypoxia in IUGR results in subclinical cardiac dysfunction. This study aimed to compare annular M-mode displacement and fetal echocardiography in fetuses with intrauterine growth restriction (IUGR) and appropriate for gestational age.

METHODS

In this hospital based prospective and comparative analytical study, 40 women were recruited in two groups of ≥ 28 weeks singleton IUGR and normal fetuses, respectively. They were subjected to long axis displacement (LAD) evaluation measured as tricuspid annular plane systolic excursions (TAPSE), mitral annular plane systolic excursions (MAPSE), septal annular plane systolic excursions (SAPSE). This was performed by M-mode fetal echocardiography and the results were compared.

RESULTS

Annular plane excursion of atrio-ventricular valves and septum as TAPSE, MAPSE, SAPSE were significantly lower in IUGR group. TAPSE, MAPSE, SAPSE in IUGR group was 6.586 ± 1.822 mm, 5.824 ± 1.220 mm, 4.425 ± 1.230 mm, respectively as compared to 8.064 ± 1.174 mm, 6.113 ± 1.195 mm, 5.138 ± 1.265 , respectively in the control group.

CONCLUSION

Fetal echocardiography in routine clinical practice could lay new paths for targeted intervention to reduce the risk of cardiovascular disease in IUGR babies and improve their health in the long run.

A Prospective Study to Evaluate Dose of Mifepristone in Medical Management of Uterine Leiomyoma in the Department of Obstetrics and Gynaecology, SMS Medical College, Jaipur

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INTRODUCTION

This study aimed to evaluate and compare the effect of 10 mg and 25 mg dose of Mifepristone in uterine leiomyoma on reduction in size and volume of fibroid, symptomatic improvement and reduce surgical morbidity.

METHODS

In this prospective study, 100 women in the group of age 35 to 50 year having symptomatic myoma were selected and given 25 mg Mifepristone in group 1 and 10 mg in group 2 once daily for 3 months and followed at 1,3, and 6 month.

RESULTS

Menorrhagia improved by 100% and all patients developed amenorrhoea during the treatment in both groups. Hemoglobin was increased from a baseline value of 8.46 ± 0.81 gm/dl to 10.5 ± 0.85 gm/dl (24.11%) and 8.38 ± 0.78 gm/dl to 10.02 ± 0.78 gm/dl (19.57%) in group-1 and 2 respectively. The decrease in fibroid volume in both groups was found to be statistically significant at 3 and 6 months follow up time ($p < 0.001$). Percentage reduction in fibroid volume was more in patients treated with Mifepristone 25 mg as compared to 10 mg at both 3 months and 6 months ($p < 0.001$). Majority of patients had no side effect during 3 month of treatment.

CONCLUSION

Mifepristone is a safe and effective drug for the medical management of uterine leiomyoma. However, 25 mg dose had significantly greater reduction in myoma size compared to 10 mg.

Fetal Vascular Adaptation before and after Treatment of Severe Maternal Anemia after 32 Weeks of Pregnancy

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INTRODUCTION

Anemia among pregnant women is a serious global health concern. The aim of study was to improve perinatal morbidity and mortality by adequately and timely correction of severe maternal anemia.

METHODS

30 patients fulfilling inclusion and exclusion criteria selected from the labour room with hemoglobin level < 7 g/dl. All the patients underwent color doppler sonography at admission, further blood transfusion and iron transfusion was according to Hb level and follow-up done after 10 and 20 days of transfusion.

RESULTS

The study showed that the ratio of mean CRI/ mean URI was 1.22 ± 0.14 at the time of admission and 1.36 ± 0.11 after 10 days of admission that was increased by 0.15 ± 0.02 from the day of admission and it was statistically significant ($P < 0.001$). After 20 days of admission, it was 1.50 ± 0.15 , increased by 0.29 ± 0.03 from the day of admission that was statistically significant. In this study, 50% newborns were low birth weight (< 2.5 kg) and 50% were normal birth weight (> 2.5 kg). This shows uteroplacental insufficiency was the cause of low birth weight babies. One more cause was preterm birth.

CONCLUSION

Close monitoring of the fetal umbilical and cerebral circulation by doppler examination in anemic pregnancies allows the measurement of the amplitude of the fetal vascular response and the fetal recovery as well.

A Prospective Study to Assess the Role of Serum CA-125 Values in Prediction of Threatened Abortion and its Outcome

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INTRODUCTION

Threatened abortion refers to vaginal bleeding during the first 20 weeks of pregnancy; process of miscarriage has started but not progressed to the stage of irreversibility. CA-125 can be used as a predictive marker for subsequent outcome of pregnancy in cases of threatened abortion. This study aimed to predict the role of serum CA-125 levels in diagnosing threatened abortion and predicting its outcome.

METHODS

A total of 60 cases were selected from out patient department with history of amenorrhea of 7-13 weeks associated with history of bleeding or spotting per vagina. Controls (60) were the women without any clinical symptoms of first trimester bleeding. They were subjected to detailed history taking, complete examination and their blood samples were sent for serum CA-125 level. Follow up was done up to 20 week by ultrasonography to detect the patients who aborted and those who didn't.

RESULTS

Average level of serum CA-125 was 68.73 IU/ml in cases while in control, it was 23.41 IU/ml. Thus, the mean serum CA-125 levels were significantly higher in threatened abortion group as compared to normal patients. The patients with complain of bleeding per vagina with ongoing pregnancy had mean level of serum CA-125 as 48.36 IU/ml while the subjects who further ended in miscarriage had serum CA-125 level around 148.28 IU/ml.

CONCLUSION

CA-125 levels estimation can be utilized as a non-invasive tool to detect the prognosis of pregnancies affected by threatened abortion.

A Comparative Study of Feto-Maternal Outcome in Low and Normal Amniotic Fluid Index in Low Risk Term Pregnancy in Department of Obstetrics and Gynaecology, SMS Medical College, Jaipur

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INTRODUCTION

Oligohydramnios, AFI \leq 5cm has been circumstantially associated with variety of ominous pregnancy outcome such as prolonged labor, fetal distress in labor. This study aimed to assess feto-maternal outcome in low and normal amniotic fluid index in low risk term pregnancy.

METHODS

This prospective study included 110 pregnant women at term (37-40 weeks). They were divided in two groups of 55 patients each. Group-A with AFI $>$ 5 cm and group-B with AFI less than 5 cm or equal to 5 cm. The maternal outcome was studied in terms of type of labor, progress of labor, and mode of delivery. Fetal outcome variables were fetal distress, nursery admission, and APGAR score of newborn.

RESULTS

Low AFI was more commonly associated with increased caesarean delivery. The rate of caesarean in oligohydramnios patient were 54.55% as compared to 32.73% in normal AFI patient. The mean duration of 1st and 2nd stage of labor was more in oligohydramnios patients. In Group A, mean APGAR score at 1 minute and at 5 minutes were 6.76 ± 0.54 , 6.8 ± 0.45 and in group B it was 6.09 ± 1.21 , 6.31 ± 1.14 at 1 minute and 5 minutes, respectively. Meconium stained liquor was major complication associated with oligohydramnios patients.

CONCLUSION

Close supervision of labor, intensive fetal monitoring, early detection of fetal distress and intervention is mandatory to achieve better feto-maternal outcome.

To Estimate and Study the Relationship between Serum Vitamin D3 Level and Diabetic Nephropathy in Type 2 Diabetes Mellitus Subjects

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INTRODUCTION

The study aimed to estimate and study the relationship between serum vitamin D3 level and diabetic nephropathy in type 2 diabetes mellitus (DM) subjects.

METHODS

A total of 100 patients with type 2 DM were enrolled, out of which 50 patients with and 50 without diabetic nephropathy were considered. Serum vitamin D3 and 24 hour urinary albumin excretion rate were investigated and analysed. Serum vitamin D3 levels were characterized as <20 ng/mL vitamin D3 deficiency, 20 to 29 ng/mL vitamin D3 insufficiency, and >30ng/mL normal vitamin D3.

RESULTS

48% of adults with type 2 DM had vitamin D3 deficiency and 27% have vitamin D3 insufficiency. Higher proportions of individuals with nephropathy have vitamin D3 deficiency than individuals without nephropathy; 43% vs. 32% (odds ratio = 2.95; 95% CI = 1.14–7.64, $p < 0.0001$). Vitamin D3 deficiency and insufficiency were associated with the presence of nephropathy after adjustment for age, sex, hypertension, lipid profile, smoking and use of angiotensin-converting enzyme (ACE) inhibitors or angiotensin receptor blockers (ARBs) (odds ratio = 3.60; 95% CI = 1.25 – 10.23 for vitamin D3 deficiency; and odds ratio=3.21; 95% CI = 1.01–10.22 for vitamin D3 insufficiency).

CONCLUSION

There is an independent association between vitamin D3 deficiency and presence of nephropathy.

Unilateral Cochlear Implant in Prelingual Deaf Children: An Experience

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INTRODUCTION

A cochlear implant (CI) is surgically implanted electronic device that provides a sense of sound to a person with severe to profound sensorineural hearing loss. It helps in social rehabilitation of the patient with hearing loss. The purpose of the study was to evaluate the effect that cochlear implant have on the speech and hearing capacity of patients.

METHODS

A total of 10 patients undergone cochlear implantation in the Department of ENT were evaluated preoperatively radiologically and audiologically. Post-operative evaluation was done using SIR score, MAIS questionnaire and, CAP score.

RESULTS

Pre-lingually deaf children showed significant improvement in auditory performance after implantation. The mean revised CAP score rose from 0.5 ± 0.5 preoperatively to 3.8 ± 0.6 at 6 months and 7.875 ± 0.6 at 12 months. The mean SIR score raised from 1.0 ± 0.0 preoperatively to 2.2 ± 0.4 at 6 months and 2.5 ± 0.5 at 12 months. Similarly, the mean MAIS score rose from 1.9 ± 1.92 preoperatively to 25.3 ± 1.27 at 6 months and 32.25 ± 0.66 at 12 months.

CONCLUSION

Cochlear implantations can significantly improve auditory receptive skills and subsequently speech development in young congenitally deaf children.

Outcomes of Circumferential Tympanomeatal Flap Tympanoplasty in Subtotal Perforation

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INTRODUCTION

Tympanoplasty is the commonest procedure performed in patients with chronic otitis media. Circumferential elevation of tympano-meatal flap and underlay graft placement is thought to be good surgical technique as it ensures elevation of canal skin over the eustachian tube area to form a good assemble between the temporalis graft and the flap to increase the success rate. In the present study, the surgical and hearing outcome in patients undergoing tympanoplasty with circumferential tympano-meatal flap in subtotal perforations were studied.

METHODS

This prospective study in a tertiary care hospital for a period of 2 years was done on 50 subjects who underwent circumferential tympanomeatal flap tympanoplasty. Patients were followed up for three months. Graft outcomes and hearing outcomes were studied.

RESULTS

Graft uptake was 94%. Blunting was noticed in 3% and medialisation in 3% of patients in circumferential group. Average air-bone gap closure achieved was 18.86 dB.

CONCLUSION

Circumferential flap elevation in tympanoplasty is an effective surgical technique in patients with anterior and large central perforations with satisfactory outcomes.

Perinatal Outcome with Mode of Delivery in Singleton Term Breech

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INTRODUCTION

Breech presentation is occurs in 3-4% of all deliveries. This study was aimed at comparing perinatal outcome with mode of delivery in women with singleton term breech delivery.

METHODS

This study involved direct questioning using questionnaires to women with singleton breech presentation at term (37 weeks) and planned for either vaginal delivery or cesarean section. Total 200 cases were selected for study, of which 100 cases planned for vaginal delivery and 100 cases planned for cesarean section were studied and compared.

RESULTS

Vaginally delivered babies had greater admission to nursery (33) compared to babies delivered by cesarean section (11). Only one still birth was reported in vaginal delivery group due to intra-partum asphyxia and perinatal mortality was 15% in this group. The perinatal mortality was 5% in cesarean section group and the difference between two groups was statistically significant ($p = 0.0001$). There were more fetal birth trauma in vaginal delivery (7) group. Low APGAR score, longer stay in hospital, and fetal birth trauma indicated fetal morbidity and this was reported statistically more among vaginal delivery group (p at 1 and 5 minute = 0.0001).

CONCLUSION

Perinatal outcome is better in babies delivered by cesarean section. Still vaginal delivery can be an safe option when strict selection criteria like multigravida, uncomplicated frank breech presentation, term gestation, estimated foetal weight more than or equal to 2500 grams to 3500 grams with adequate pelvis are met and delivery conducted by a skilled obstetrician.

Study of Placental Localization and Perinatal Outcome with Previous Caesarean Delivery

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INTRODUCTION

APH is most common cause of obstetric hemorrhage; major cause is placenta previa, which is significantly associated with previous caesarean section and other form of uterine insult. The aim of present study was to study risk factor for development of placenta previa and to compare placental location and perinatal outcome in previous normal (NVD) v/s previous caesarean deliveries.

METHODS

The present study was a prospective comparative observational study including 400 cases. These were divided in two groups:- group I (previous NVD) and group II (previous caesarean delivery).

RESULTS

Incidence of placenta previa was 6.5% in group II; which was much higher than group I (2%, $p = 0.025$). Risk of development of placenta previa significantly increased with increasing maternal age (beyond 30 year). Development of placenta previa with subsequent pregnancies increased in linear fashion with increasing number of caesarean deliveries ($p = 0.026$). The rate of complications and maternal morbidity (severe anemia, PPH, ≥ 3 blood transfusion, obstetrics hysterectomy, and hospital stay > 7 day) and maternal mortality were also found to be significantly more in group II as compared group I. Perinatal morbidity (prematurity, LBW, low Apgar score at 5 minute, malpresentation) as well as perinatal mortality and still birth were significantly higher in group II as compared to group I.

CONCLUSION

Incidence of placenta previa and its associated complications were significantly higher in as compared to previous NVD group.

To Study the Acceptance, Complication, Expulsion, Removal and Failure Rates of PPIUCD Insertion

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INTRODUCTION

The effective family planning methods offer numerous health and development benefits to women and families. This study aimed to study the acceptance, complication, expulsion, removal, and failure rates of PPIUCD insertion at a Government Medical College in Rajasthan.

METHODS

A prospective study was conducted in Department of Obstetrics and Gynecology over a period of 18 months from January 2017 to June 2018. PPIUCD were inserted in women within 10 minutes after normal vaginal delivery as well as during cesarean section after delivery of placenta and before closure of uterus. The study participants were enquired and followed for acceptance, complication, expulsion, removal, and failure rates of PPIUCD insertion.

RESULTS

Total women counseled at the time of admission for delivery were 7347. Out of this, 1000 accepted PPIUCD. Overall accepted rate was 13.61%. Out of 1000, 96.4% women could be followed up and 3.6% were lost to follow up. The removal rate was 8.71% while expulsion rate was 4.77% and continuation rate was 86.51%. There was no case of perforation or pregnancy (failure) during follow up.

CONCLUSION

PPIUCD is a very successful reversible and long acting method of contraception; it has the added advantage of providing contraception at the same time as delivery and so provides the woman with the contraceptive at the right time in post-partum period.

A Comparative Study of Misgav Ladach Technique and Pfannensteil Kerr Method of Lower Segment Caesarean Section among Women Attending Department of Obstetrics And Gynecology, SMS Medical College, Jaipur

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INTRODUCTION

Caesarean section is the most commonly performed obstetric surgery. The study was undertaken to study the postoperative outcome of the patient who underwent caesarean section by Pfannensteil Kerr (PK) and Misgav Ladach (ML) method of lower segment caesarean section.

METHODS

It was a hospital based interventional study conducted on 80 women undergoing caesarean section selected randomly after applying the inclusion and exclusion criteria. After a detailed history and clinical examination, they were divided into two groups based on the technique of caesarean section, ML, or PK method.

RESULTS

Most cases in the ML method had lesser pain and any difference in age, socioeconomic status, literacy, or BMI had no effect on the pain score. Mean time of skin incision to delivery, time of skin incision to closure, and mean amount of blood loss was significantly less than the PK group (4.8 ± 0.61) with p value of 0.001. Women in ML group breast fed early, had quicker return of bowel activity and earlier ambulation in comparison to the PK method. Women with the PK method had more postoperative pain, nausea, and vomiting. The duration of hospital stay was less in ML technique.

CONCLUSION

Adopting Misgav Ladach method routinely would result in considerable reduction in maternal morbidity, decreased hospital stay, better patient satisfaction level and more cost effective.

A Comparative Study of Low Dose Human Menopausal Gonadotropin versus Clomiphene Citrate for Controlled Ovarian Stimulation in IUI Cycles at SMS Medical College, Jaipur

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INTRODUCTION

This study was conducted to compare the clinical pregnancy rate following intrauterine insemination (IUI) after controlled ovarian stimulation with human menopausal gonadotropin and clomiphene citrate.

METHODS

It was a prospective randomized, comparative study of 406 eligible couple fulfilling inclusion and exclusion criteria, undergoing 512 controlled IUI cycles. Patients were randomly divided at cycle level, 260 cycles were allocated to Clomiphene citrate (CC) group and 252 cycles were allocated to human menopausal gonadotropin (HMG) group. Insemination was then performed with washed semen 36-40 hours after injection human chorionic gonadotropin for triggering ovulation. The patient was then called after 2 weeks for pregnancy determination.

RESULTS

Out of 512 cycles, 59 cycles were positive. The pregnancy rate was 11.52%. Out of 260 cycles enrolled in CC group, 22 clinical pregnancy were reported, showing a pregnancy rate of 8.46% whereas in HMG group 37 cycles were positive out of 252 cycles, with a pregnancy rate of 14.68%. The difference was statistically significant ($p=0.003$).

CONCLUSION

IUI is a successful treatment for appropriately selected cases of infertility. Controlled ovarian stimulation using low dose step up human menopausal gonadotropin (HMG) was superior to clomiphene citrate in IUI cycles with better endometrial thickness.

A Cross Sectional Study to Evaluate the Relation between Thyroid Disorders and Abnormal Uterine Bleeding in Reproductive Age Group in the Department of Obstetrics and Gynaecology, SMS Medical College, Jaipur

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INTRODUCTION

Thyroid dysfunction is marked by large number of menstrual aberrations. This study was to evaluate the incidence of thyroid dysfunction in abnormal uterine bleeding (AUB) and to assess the menstrual patterns in women with thyroid disorders.

METHODS

A hospital based cross sectional descriptive type of observational study was conducted on 100 women presented to gynaecology OPD with AUB. All females in 19-45 years of age group with abnormal uterine bleeding and those giving informed consent were included excluding all women with previously known thyroid disorders, abortion history within 3 months, history of childbirth within one year, IUCD/OC pill users, patient with known liver disorders and coagulopathies, known cases of cancer of genital organs, and known cases of autoimmune disorders. Women were tested for thyroid function by T3, T4 and TSH in their serum.

RESULTS

The bleeding abnormality that was found in most of the women was heavy menstrual bleeding i.e. 45%. 33% of women who were studied had thyroid dysfunction. 23% had subclinical hypothyroidism, 6% had hypothyroidism, and, 4% had hyperthyroidism.

CONCLUSION

This study concludes that biochemical evaluation of thyroid hormones should be made mandatory in all cases of AUB to detect thyroid dysfunction.

Prevalence of Eclampsia and Risk Factors among Pregnant Women at Tertiary Care Center, Jodhpur

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INTRODUCTION

The objectives of the study were to find the prevalence, epidemiological factors, clinical presentation, maternal outcome, and fetal outcome of eclampsia at our institute.

METHODS

This was a hospital based prospective study from 1st January 2018 to 31st December 2018. All pregnant females admitted in department were included in the study.

RESULTS

The incidence of eclampsia came out to be 1.01%. Antepartum eclampsia (65.42%) was the predominant type. Maximum were primigravida (71.8%) and overweight (61%). Eclampsia was preceded by preeclampsia in 58 cases. The commonest complaint at admission was the development of fits which was found in 208 women (92.7%). Orofacial manifestations and visual disturbances were observed in 196 and 124 women, respectively. Neurological involvement was seen in all women with eclampsia (100%) followed by hepatic derangements in 207 cases (94.04%), renal involvement in 117 cases (53.1%), pulmonary complications in 3.6%. APH, PPH, HELLP, sepsis, DIC, and MODS were found in 13.0%, 20.9%, 49.1%, 8.19%, 2.3%, and 1.37%, respectively. ICU care was required in 187 cases and ventilatory support in 63 cases. Labor induction was required in 89 (40.45%) eclamptic women. There were four maternal mortality and 20 perinatal deaths in the study.

CONCLUSION

Timely and better antenatal care reduces the incidence of eclampsia by finding out the high-risk factors among the pregnant women.

A Study of Association between QTd, Tp-e/QT Ratio, and in-Hospital Prognosis in Thrombolysed Acute ST-Elevation Myocardial Infarction (STEMI) Patients

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INTRODUCTION

The present study is aimed to determine the short term, in-hospital prognostic value of QTd and Tp-e /QT ratio in thrombolysed STEMI patients.

METHODS

This was a prospective, observational study that included 100 patients. Relevant clinical data was collected. QTd and Tp-e/QT ratio was calculated from “at admission ECG” just before thrombolysis. Appropriate statistical tests were applied to determine the predictors of in hospital outcome.

RESULTS

Mean value of QTd, QTcd, and Tp-e/QT ratio were 89.89 ± 48.18 msec, 101.24 ± 46.58 msec, and 0.34 ± 0.11 , respectively. The QTd, QTcd, and Tp-e/QT ratio were all independent predictors of in-hospital ventricular arrhythmias (ventricular tachycardia and ventricular fibrillation). QTd and Tp-e/QT ratio were independent predictors of in-hospital mortality. On ROC curve analysis, Tp-e/QT ratio was found to be more sensitive than QTcd in predicting in-hospital mortality, ventricular tachycardia (both at a cut off value of 0.42), and ventricular fibrillation (at a cut off value of 0.47).

CONCLUSION

Tp-e/QT ratio is more sensitive than QTcd in predicting the occurrence of ventricular arrhythmias and death during hospital stay in thrombolysed acute STEMI patients. QTcd predicts the risk of ventricular arrhythmias but not death in such patients.

Cardiovascular Manifestations in Cases of Dengue Fever

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INTRODUCTION

This prospective observational study was planned to evaluate the involvement of cardiovascular system in cases of dengue fever.

METHODS

A total of 174 cases of dengue fever diagnosed as per WHO guidelines were studied. All patients were evaluated as per performa and followed-up during hospital stay. Evaluation of cardiovascular system was done by clinical examination, chest X-ray, ECG, estimation of cardiac markers, high resolution transthoracic echocardiography, and Holter monitoring.

RESULTS

Out of total cases studied 117 had dengue fever, 40 dengue hemorrhagic fever (DHS), and 17 dengue shock syndrome (DSS). Clinically at the time of hospitalisation, 62.6% cases were found to be suffering from cardiovascular symptoms. Hospital stay (6.32 ± 2.40 vs 5.17 ± 1.59) and mortality (14.9% vs 0.8%) were significantly higher in patients with elevated troponin I. Echocardiography was done in 42 cases out of which mitral regurgitation in 21.4% cases, aortic regurgitation in 4.8%, tricuspid regurgitation in 35.7%, left atrial enlargement (2.4%), right atrial enlargement (7.1%), left ventricular systolic dysfunction (14.3%), pericardial effusion (23.8%), pulmonary hypertension (30.9%), and diastolic dysfunction in 50% of the cases was found.

CONCLUSION

There is a significant involvement of cardiovascular system in cases of dengue fever as evident by changes in ECG and troponin I. Elevated troponin I was significantly associated with increased morbidity and mortality.

Study of Association of Serum Uric Acid Level and Microalbuminuria in Essential Hypertension

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INTRODUCTION

Hyperuricemia increases cardiovascular risk in patients with hypertension. Aim of this study was to assess the relationship between serum uric acid and microalbuminuria in essential hypertension as a marker of end organ damage.

METHODS

A cross-sectional hospital based study was carried out in 100 (50 females, 50 males) untreated patients with essential hypertension. 100 healthy age and sex-matched non-hypertensive individuals served as controls for comparison. Uric acid was analyzed by auto analyzer and Randox immunoturbidimetric assay for urinary albumin was used.

RESULTS

Mean serum uric acid was significantly higher among the patients with hypertension (7.03 ± 1.49 mg/dl) than in the controls (4.62 ± 1.22 mg/dl) and hyperuricemia was 58% among the hypertensive patients and 15% among the controls ($p < 0.001$). Among the hypertensive patients, microalbuminuria was present in 86.20% of those with hyperuricemia and in 23.80% of those with normal uric acid levels ($p = 0.001$). There was also a significant positive correlation in stage and duration of hypertension with serum uric acid and microalbuminuria. There was a significant linear relationship between uric acid levels and microalbuminuria.

CONCLUSION

Serum uric acid is associated with microalbuminuria in patients with hypertension, even at the time of diagnosis; thus, it is a reliable, cost effective, and early marker of diagnosing end organ damage or microalbuminuria in patients with hypertension.

Comparison of Inverted Internal Limiting Membrane Flap Technique and Standard Macular Hole Surgery for Large Macular Hole in Terms of Anatomical and Functional Outcomes of Vitrectomy

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INTRODUCTION

In the present study, the anatomical closure rate and visual outcome were compared in patients undergoing vitrectomy with ILM flap inversion or ILP peeling for the treatment of macular hole diameter larger than 400 μm .

METHODS

This was a prospective randomized clinical trial on 150 patients with idiopathic macular hole diameter larger than 400 micron randomized into group A (ILM peeling) and group B (inverted ILM flap) comprising of 75 patients in each group. The main outcome measures were anatomical and visual outcome at the end of 1, 3, 6, and 12 months. Anatomical success was defined as flattening of macular hole with resolution of the subretinal cuff of fluid and neurosensory retina completely covering the fovea.

RESULTS

The anatomical success was 60% in group A and 86.66% in group B. The type-1 closure rate was 60% in group A and 86.66% in group B and type-2/flat open closure rate was 33.33% in group A and 13.33% in IFT group B. The mean value of post-operative visual acuity in 1, 3, 6, and 12 months was 0.12 ± 0.07 , 0.14 ± 0.10 , 0.18 ± 0.11 , and 0.19 ± 0.12 respectively in group A and 0.20 ± 0.11 , 0.22 ± 0.13 , 0.30 ± 0.12 , and 0.31 ± 0.14 , respectively in group B, which was statistically significant.

CONCLUSION

Inverted ILM flap technique showed a trend towards better anatomical and visual outcome in case of large macular holes.

A Study on N-Butyl Cyanoacrylate Glue Fixation versus Tacker Fixation of Mesh in Laparoscopic Totally Extra Peritoneal Hernia Repair

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INTRODUCTION

Laparoscopic groin hernia repair has evolved to become a mainstay in the treatment and is associated with less postoperative pain, faster recovery, and earlier return to work. Fixation of the mesh in laparoscopic hernia surgery is a critical step of the procedure. The aim of the present study was to compare tacker fixation of the mesh with non-mechanical fixation using n-butyl cyanoacrylate (NBCA) glue for laparoscopic totally extra-peritoneal (TEP) hernioplasty.

METHODS

A total of 60 patients with uncomplicated inguinal hernia undergoing standard dissection in TEP by a single surgeon were randomized into 30 patients in the tacker mesh fixation (group A) and 30 in NBCA glue mesh fixation (group B) for this prospective study. Endpoints were recurrence at six months, postoperative acute and chronic pain was assessed by recording the visual analogue scale scores, analgesic requirement in the post-operative period, and duration of surgery.

RESULTS

There was no significant difference in the duration of surgery and VAS scores at all timelines between the two groups; however, one patient in tacker group had chronic pain. Consumption of analgesia was slightly higher in group A in early post-operative period but was not statistically significant. No recurrence was found in either group. Most of the patients were able to return to normal routine within a week.

CONCLUSION

NBCA glue to fix the mesh in laparoscopic TEP hernia repair is comparable to tacker and can be considered to be safe, feasible, cost-effective, and associated with less pain on day seven.

Semiquantitative Analysis of Cerebrospinal Fluid Chemistry and Cellularity Using Urinary Reagent Strip in CNS Infections

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INTRODUCTION

Rapid diagnosis and prompt treatment remains the cornerstone of management of patients with various CNS infections. Hence, this study aimed to evaluate role and reliability of urinary reagent strip for the semi-quantitative analysis of CSF chemistry and cellularity.

METHODS

This prospective, single blinded diagnostic study was conducted on hundred patients, aged ≥ 18 years admitted in hospital with suspected diagnosis of CNS infection. CSF samples were taken for laboratory evaluation and rapid strip analysis. The sensitivity, specificity, positive predictive value, and negative predictive values of the reagent strips for the diagnosis of CNS infection were calculated and accuracy was established.

RESULTS

Highly significant association was observed between CSF examination in routine laboratory method and dipstick method. The strip showed a high sensitivity (94%) and specificity (98.5%) for leukocytes ≥ 10 cells/mm³. The strip showed a sensitivity of 93% and specificity of 98.5% for proteins at a cut-off ≥ 100 mg/dl. With respect to glucose, the strip had 100% specificity and 98.5% sensitivity at cut-off ≥ 50 levels. The accuracy for leukocytes ≥ 10 cells/mm³ was 97.00%; for proteins ≥ 100 mg/dl, it was 97%; and for glucose ≥ 50 mg/dl, it was 99.00%.

CONCLUSION

Reagent strips can be of value to clinicians working in resource constrained settings to reliably make a rapid diagnosis of meningitis and even at tertiary centres it can shorten the time lag between sending of samples and receiving of reports.

Cardiovascular Manifestations in Patients with Rheumatoid Arthritis and Association with Anti-Cyclic Citrulinated Peptide Antibodies

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INTRODUCTION

Rheumatoid arthritis (RA) is a chronic inflammatory disease of unknown etiology. The main causes of death are cardiovascular, cerebrovascular, pulmonary diseases, neoplasias, and infections. The aim of the study was to determine the role of anti-CCP antibody as an independent risk factor for developing cardiovascular complications as documented by carotid intima medial thickness and abnormal echocardiography in RA patients.

METHODS

In the present cross-sectional observational study, patients were divided into two groups according to their anti-CCP antibody status. Cardiovascular manifestations were measured with 2D-ECHO and ultrasonogram Doppler.

RESULTS

Out of total 100 cases, 72 were anti-CCP negative and 28 were anti-CCP positive. The difference in mean CIMT in anti CCP negative cases and in anti CCP positive cases was statistically highly significant ($p < 0.001$). Majority ($n=84$) of patients had normal 2D-echo findings. However, 16 patients reported abnormality in 2D-echo findings, out of which 14 belonged to anti-CCP positive group and 2 belonged to anti-CCP negative group. This difference was found to be statistically highly significant ($p < 0.001$), suggesting higher incidence of cardiac abnormality in anti-CCP positive group.

CONCLUSION

Cardiovascular involvement was relatively higher among anti-CCP positive patients than in anti-CCP negative RA patients.

The Effect of Hourly Intravenous Bolus Versus Continuous Insulin Infusion Regimen on the Recovery Profile of the Patients with Diabetic Ketoacidosis

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INTRODUCTION

This study was carried out to record and compare the effect of hourly intravenous insulin infusion regimen on the recovery profile of the patients with diabetic ketoacidosis (DKA) to that of continuous intravenous bolus insulin regimen.

METHODS

The study included 88 patients; 52 of type 1 DM (group I) and 30 of type 2 DM (group II) with symptoms of DKA. The patients considered for the study had sugar level above 250 mg/dl, blood ketones above 1.0 mg/dl, bicarbonate level below 15mg/dl, and $pH \leq 7.3$; with no history of any other chronic disease. Group I was further sub grouped into group A (receiving insulin infusion) and B (receiving insulin bolus); and group II into group C (receiving insulin infusion) and group D (receiving insulin bolus). Investigations included complete blood count, blood sugar and ketones level, renal and liver functions, urine examination, ABG, ECG, chest X ray, and ultrasonography.

RESULTS

In group I, occurrence of complication was significantly low in group B when compared to group A; recovery time was superior in group B with a p value of 0.036. In group II, the duration of recovery was low as compared to the insulin infusion group (16.37 ± 8.80 hours). Incidence of hypokalemia was 31.50% in insulin infusion group compared to insulin bolus group (28.57%).

CONCLUSION

Insulin bolus may be superior to insulin infusion in the management of DKA. Our study also supports decreased requirement of ICU settings for the management of DKA.

To Study Serum Homocysteine Level in Acute Myocardial Infarction and Acute Ischemic Stroke and Correlation with Serum Lipid Profile

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INTRODUCTION

This study was designed to study the levels of homocysteine in acute myocardial infarction and acute ischemic stroke and correlate with serum lipid profile of those patients.

METHODS

This comparative, descriptive study was conducted in 50 controls, 50 patients with proven myocardial infarction, and another 50 patients with proven acute ischemic stroke. Fasting serum homocysteine levels were detected using high performance liquid chromatography (HPLC) or by direct electrochemical detection of homocysteine.

RESULTS

Out of 150 subjects, males outnumbered females but there was no significant difference in gender distribution and majority of the study participants were in the 35-65 years age group. There was a significantly ($p < 0.01$) higher number of alcoholics and smokers in MI group compared to control group. Serum lipid profile was studied using post hoc Games Howell test, and a significant difference ($p = 0.03$) was found in VLDL values between MI and stroke group as well as between control and MI/stroke group ($p < 0.05$). Serum homocysteine level showed highly significant difference between the control group (6.52 ± 2.99), MI (26.4 ± 17.52), and stroke (39.2 ± 23.6). These variations were compared with serum lipid profile among three groups.

CONCLUSION

The lipid parameters (except HDL) were increased in those who showed increased homocysteine level in MI as well as stroke group when compared with control group.

Study of Neurocognitive Profile in Patients (Remission Phase) of Obsessive Compulsive Disorder, Depression, and Healthy Controls

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INTRODUCTION

Obsessive compulsive disorder (OCD) and depression are often disabling conditions, causing significant neuropsychological deficit to the affected person. The aim of present study was to assess and compare the neurocognitive functions in patients (remission phase) of OCD, depression, and healthy controls.

METHODS

This was a cross sectional study, carried out in the outpatient unit of department of psychiatry at tertiary care centre of western Rajasthan. Thirty patients of OCD and 30 patients of depressive disorder both currently in remission phase were selected and 30 subjects were included in control group. The study participants were assessed on semi structured socio-demographic profile sheet, semi structured clinical proforma, and neurocognitive tests (digit span test, trail making tests, tests for verbal retention, visuo-spatial working memory matrix).

RESULTS

All groups were comparable in socio-demographic variables in regard to their age, sex, and education ($p > 0.05$). On neurocognitive test, OCD group did not show impairments comparable to healthy controls and depression group. But comparison between depression group and control group was statistically significant in cognitive flexibility domain ($p < 0.05$).

CONCLUSION

Unipolar depression in the remission phase exhibit statistically significant differences in cognitive deficits within the domain of mental flexibility (executive control) in comparison to healthy controls.

Comparison of CO₂ Laser Excision and Conventional Method Excision on Intraoral Soft Tissue Pathologies

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INTRODUCTION

Carbon dioxide (CO₂) laser surgery has become the treatment of choice offering rapid and precise tissue dissection, reduced bleeding and post-operative pain, low morbidity, minimal scarring and wound contracture and more importantly excellent patient acceptance. The aim of the study was to compare post-operative pain, intra operative bleeding and surgical field visibility, operative time, and wound healing between laser excision and conventional method excision in intraoral lesions.

METHODS

The study was a prospective, observational study done on 100 patients with clinical features suggestive of benign, premalignant intraoral pathologies. Patients underwent laser surgery (n = 50) and scalpel excision (n = 50). Forme-Boezaart surgical field grading system was used for intraoperative bleeding and surgical field visibility, numeric rating scale for post-operative pain and Landry et al Healing Index for wound healing.

RESULTS

There were 37% cases involving buccal mucosa followed by 26.00% cases of tongue. The operative time and post-operative pain was significantly lesser with CO₂ laser. Intra operative bleeding and surgical field visibility was significantly better with laser surgery. Wound healing was better with CO₂ laser in first post-operative week; however, it was nearly same as conventional scalpel excision on further follow up.

CONCLUSION

CO₂ laser supersedes conventional scalpel in terms of operative time, surgical field visibility, and intraoperative bleeding, and post-operative pain.

Comparative Evaluation of Palpable Breast Lumps by Digital Breast Tomosynthesis and MRI Breast with Histopathological Correlation

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INTRODUCTION

The present study was done to compare efficacy of digital breast tomosynthesis and MRI breast in evaluation of palpable breast masses and other suspicious breast findings.

METHODS

A prospective study of 50 patients was carried out among female patients in the age group of 20-72 years with clinically palpable breast lump/nipple erosion/nipple retraction/nipple discharge/screening/BI-RADS III, IV, V.

RESULTS

Out of 50 cases examined, 19 cases were of ductal carcinoma, 17 of fibro-adenoma, 4 of lobular carcinoma, 3 of ductal carcinoma in situ, 2 cases each of Paget's disease, granulomatous mastitis, and fat necrosis, and 1 case of chronic mastitis. Well circumscribed margins were most commonly associated with benignity. Spiculated margins and gross architectural distortion (seen on both DBT and MRI), fine pleomorphic/grouped/linear/segmental/amorphous calcifications (seen on DBT), rim enhancement of mass with kinetic curve III, clumped/linear/segmental/focal non mass like enhancement (coinciding with calcifications on DBT), adjacent invasion and metastasis were associated with malignancy.

CONCLUSION

Differentiation between benign and malignant lesions by DBT had 100% sensitivity and 77.2% specificity and MRI had 100% sensitivity and 95.45% specificity.

Establishing Use of Concurrent HDR-ICBT with EBRT for Management of Stage II Cervical Cancer at a Regional Cancer Center

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INTRODUCTION

American Brachytherapy Society recommends use of brachytherapy for successful completion of management of locally advanced cervical cancer. Multiple dose fractionation schedules are available, but none is currently standardized. The aim of the present study was to analyze two different concurrent HDR-ICBT (Intracavitary BT) schedules, their disease response, acute and late toxicities.

METHODS

A total of 50 cases of histologically proven stage II cervical cancer were randomized into two arms, arm A and arm B. Patients in both arms received 50 Gy (Gray) (2 Gy/ fraction, 25 fractions, Monday to Friday) of external beam radiotherapy (EBRT) to whole pelvis with weekly cisplatin (40 mg/m²) on every Sunday. Patients in arm A received HDR-ICBT regime of 7.5 Gy/fraction for 3 fractions, in arm B patients received 6 Gy/fraction for 4 fractions on every Saturday.

RESULTS

Median follow up period of study was 14 months (range 7- 20 months). There was no significant difference in local control and late toxicities in both arms. At the end of 6 months, 41 patients (82%) had attained CR with the rate 84% for arm A and 80% for arm B ($p = 0.721$).

CONCLUSION

Both regimes of concurrent HDR-ICBT were tolerated well and were safe to use. Results of disease response and toxicity profile were also similar in both regimes.

Serum Prolactin Levels in Patients of Psoriasis Vulgaris and its Correlation with Disease Severity: A Case-Control Study

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INTRODUCTION

Several factors and hormones like prolactin have an action similar to cytokines in promoting the multiplication of keratinocytes and other cells like lymphocytes and epithelial cells may have a role on the etiopathogenesis of psoriasis. The present study aimed to compare the serum prolactin levels in patients of psoriasis with a control group.

METHODS

This was a case-control study conducted on a total of 100 cases of psoriasis (60 males and 40 females) and 100 controls similar for age and sex. Serum prolactin levels were measured by ECLIA.

RESULTS

Serum prolactin level was significantly higher in cases of psoriasis compared to controls ($p < 0.001$). PASI score and serum prolactin levels were found to have a positive correlation ($r = 0.337$; $p = 0.001$). No significant correlation was found between serum levels of prolactin and duration of disease ($r = -0.034$, $p = 0.733$). Serum prolactin level was higher in male patients compared to female patients.

CONCLUSION

High serum prolactin levels may be a biological marker of disease severity in psoriasis patients and may have a role in the pathogenesis of psoriasis.

Outcome Analysis of Canalicular Laceration Repair with Self-Retaining Monocanicular Silicone Stent

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INTRODUCTION

Eyelid injuries are sometimes accompanied by canalicular laceration. In most cases immediate management with stenting of the lacerated canaliculus is done. The study was done to evaluate the clinical efficacy of canalicular laceration repair with self-retaining monocanicular silicone stent (Mini-Monoka).

METHODS

The study was conducted on 36 patients who had canalicular laceration repair done with self-retaining monocanicular stent. Demographic data, cause of trauma and time duration between trauma and surgery were recorded. Postoperative anatomical and functional success was assessed with complications, if any.

RESULTS

Out of 36 patients, 26 were males and 10 females. Mean age of presentation was 28.31 ± 16.37 years (range 1 to 62 years). Lower canaliculus was involved in 34 (94.44%) and upper canaliculus in 2 (5.55%) cases. No case of bicanicular involvement was seen. The most common cause of canalicular laceration was road traffic accidents (44.44%) followed by wooden stick (19.44%). Surgical lag time was 2.83 days after sustaining of trauma. Anatomical success was noted in 35 (97.22%) and functional success in 34 (94.44%) cases. Two patients had early spontaneous removal of stent.

CONCLUSION

The Mini-Monoka monocanicular stent is a simple, minimally invasive and effective tool for reconstruction of traumatic monocanicular lacerations. Canalicular laceration repair with self-retaining Mini-Monoka stents showed high anatomical and functional success rate in this study.

Effectiveness and Safety of Contact Lens Assisted Collagen Cross-Linking in Thin Corneas with Progressive Keratoconus in Adults

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INTRODUCTION

The present study was done to demonstrate the effectiveness and safety of contact lens assisted collagen cross-linking in thin corneas with progressive keratoconus in adults.

METHODS

Patients diagnosed as having progressive keratoconus with minimum corneal thickness between 440- 350 μm were included. After epithelial abrasion, the iso-osmolar riboflavin 0.1% in dextran was applied every 3 minutes for 30 minutes. An ultraviolet barrier-free soft contact lens (90 μm thickness, 14-mm diameter) soaked in iso-osmolar riboflavin 0.1% for 30 minutes was placed on cornea. Once the minimum corneal thickness was confirmed to be greater than 400 μm , the ultraviolet-A irradiance was started. Intraoperative minimum corneal thickness changes were recorded with ultrasound pachymetry. Postoperative visual acuity, corneal topography and endothelial cell loss were measured.

RESULTS

Seventy-five eyes underwent the procedure. Mean absolute increase in the minimum corneal thickness along with the contact lens and pre-corneal riboflavin film was $111.19 \pm 8.87\mu\text{m}$. There was no significant endothelial loss, change in corneal thickness, and k_{max} at 6 and 12 month. At 6 and 12 months, there was significant improvement in BCVA and spherical equivalent.

CONCLUSION

CACXL technique was effective and safe in performing cross-linking in thin corneas and appeared effective procedure to freeze keratoconus progression in adult eyes in thin cornea.

Placental Cord Blood Drainage after Vaginal Delivery as Part of the Management of Third Stage of Labour: A Systematic Review of Randomized Controlled Clinical Trial

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INTRODUCTION

The present study was undertaken to evaluate the effectiveness of placental cord blood drainage after vaginal delivery in reducing the duration and blood loss during third stage of labour in primigravida between the age group of 18-35 years, with term, singleton live pregnancy with vertex presentation with average size fetus, without any complications, expected to spontaneous vaginal delivery.

METHODS

It was a randomized clinical controlled trial on 100 pregnant women admitted in labour room from April 2017 to July 2018. All women enrolled were subjected to history taking general and obstetric examination. In the study group, placental end of the previously clamped and cut umbilical cord was unclamped immediately after vaginal delivery, while remaining clamped in the control group.

RESULTS

Duration of third stage of labour, blood loss during third stage, postpartum hemorrhage, need for blood transfusion, and haemoglobin difference between antenatal and postnatal period was significantly reduced in the study group than control group.

CONCLUSION

Placental cord blood drainage is simple, safe, and non-invasive method which reduces the duration and blood loss of third stage of labour.

To Evaluate Different Routes of Administration of Misoprostol for Termination of Pregnancy between 12-20 Weeks of Gestation

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INTRODUCTION

This study aimed to evaluate and compare different routes of administration of misoprostol for termination of pregnancy and to find the best and simplest route of administration of misoprostol which can be effectively used for termination of pregnancy between 12-20 weeks.

METHODS

A total of 180 women were randomly divided into 3 groups and given 400 micrograms 4 hourly by sublingual, vaginal and oral route up to a maximum of 4 doses. Outcomes measured were success rate at 24 hours, failure rate, and induction-abortion interval.

RESULTS

The main indication for termination was congenitally malformed foetus. 56.1% patient were terminated for this indication. The failure rate was 16.7% at 24 hours with maximum failure rate with oral route of misoprostol. The complete abortion rate was almost similar for both sublingual and vaginal group. The mean induction-abortion interval was lowest with sublingual group 10.13 ± 02.17 hours, followed by 10.71 ± 2.21 hours for vaginal group and it was highest with oral route being 14.73 ± 01.73 hours. The administration route was considered comfortable by 98.3% patients with oral route, 95% patients with sublingual route and only 58.3% patients with vaginal route.

CONCLUSION

Sublingual route results in higher abortions than oral route and due to higher acceptance is better as compared to vaginal route.

A Comparative Study of Intensity Modulated and 3D Conformal Radiotherapy of Head and Neck Region

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INTRODUCTION

This study was undertaken to estimate and compare xerostomia in patients receiving IMRT with those receiving 3D conformal radiotherapy (CRT) in head and neck cancer at the end of treatment and 6 months after treatment completion.

METHODS

A total of 60 patients of head and neck cancer were randomly selected and divided into two groups of 30 patients each. Patients of group A received 3D-CRT and group B received IMRT. Patients of both arms receiving concurrent chemoradiation, were assessed weekly for local disease response and development of any acute skin or mucosal reactions. Xerostomia was assessed at the end of treatment, 1 month, 3 month, and 6 month post radiotherapy and also graded as per the CTCAE guidelines at 6 months follow up after treatment completion.

RESULTS

No statistical significant difference in incidence and severity of both acute skin reaction and stomatitis during or at the end of treatment in both arms was found. At the end of treatment, 1 month, 3 month, and 6 month post radiotherapy there was no significant difference in incidence or RTOG grade of xerostomia between both the arms. While on assessing with CTCAE criteria, there was significant difference in occurrence of grade III xerostomia at 6 months post radiotherapy between the two arms (63.3% in 3D-CRT arm v/s 30% in IMRT arm, p value = 0.009).

CONCLUSION

IMRT should be considered in treatment of head and neck cancers to prevent higher grade xerostomia.

Pattern of Dermatoses among Geriatric Population Attending Dermatology Outpatient Department of a Tertiary Care Centre of South Rajasthan

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INTRODUCTION

The present study was conducted to evaluate patterns of various dermatoses in geriatric population and to record age related co-morbidities with these dermatoses.

METHODS

A clinico-epidemiological study was conducted on 653 patients aged above 60 years attending the dermatology outpatient department. All cutaneous, nail, and mucosal lesions present were recorded. The findings were recorded in a proforma for analysis and interpretation of data.

RESULTS

Out of total 653 patients enrolled, 71.5% were males and 28.5% females. The male to female ratio was 2.5:1. Maximum (76.4%) number of patients were in the age group of 60-69 years. Wrinkling (48.9%) was the commonest physiological cutaneous finding. Among the pathological changes, benign tumors (30.23%), pruritus (22.8%), infection (12.10%), pigmentary (10.99%), nevus (29.92%), eczematous (9.56%) and papulo-squamous disorders (1.48%) were common conditions. Associated systemic illness was recorded in 149 (22.77%) patients, of which hypertension 72 (11.02%) was the commonest.

CONCLUSION

Periodic studies across the different regions will thus help to identify the specific health needs of elderly in that particular region and ensure effective management of these patients and improve their quality of life. The index study is such an attempt.

Comparative Study to Evaluate the Effect of Mitomycin-C on Corneal Endothelial Cells in Mitomycin-C Augmented Trabeculectomy and Standard Trabeculectomy

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INTRODUCTION

Corneal endothelial loss occurs due to Mitomycin-C (MMC) during trabeculectomy. The aim of the study was to evaluate the effect of MMC on corneal endothelial cells and morphology in Mitomycin-C augmented trabeculectomy.

METHODS

In the study, 40 eyes of patients which underwent trabeculectomy with MMC (group 1) and 40 eyes of patients which underwent trabeculectomy without MMC (group 2) were included. Specular microscopy was performed at 1 and 3 month postoperatively. Outcome variables included corneal endothelial cell density (CECD), coefficient of variation of cell size (CV), central corneal thickness (CCT), and hexagonality.

RESULTS

Mean preoperative CECD was $2538.21 \pm 259.98 \text{ mm}^2$ and at 1st and 3rd month postoperatively, it significantly reduced to $2377.11 \pm 270.36 \text{ mm}^2$ and $2340.56 \pm 272.39 \text{ mm}^2$ respectively. Mean preoperative CV increased non-significantly and mean preoperative hexagonality reduced non-significantly at 1st and 3rd month postoperatively. Overall, mean preoperative CCT was significantly increased at 1st and 3rd month postoperatively.

CONCLUSION

Corneal endothelium is vulnerable to Mitomycin-C and these findings should be considered when planning trabeculectomy with Mitomycin-C as modest endothelial loss may result in corneal decompensation.

Study to Assess the Effect of Intracameral 0.5% Lignocaine + 0.001% Epinephrine in Initiating and Maintaining the Pupillary Mydriasis during Phacoemulsification under Topical Anaesthesia

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INTRODUCTION

The study was done to evaluate the effect of intracameral 0.5% lignocaine + 0.001% epinephrine in initiating and maintaining the pupillary mydriasis during phacoemulsification under topical anaesthesia.

METHODS

In this study, 35 patients underwent phacoemulsification under topical anaesthesia for visually significant cataract. Pupillary dilatation was achieved by intracameral irrigation of mydriatic solution alone. Time to achieve effective pupillary dilatation was noted. Pupillary diameter was measured serially, after 30 second of injection of intracameral mydriatic, before IOL implantation and at the end of surgery. Ultrasound time and total surgical time were noted.

RESULTS

Overall, the mean time to achieve effective pupillary dilatation was 20.06 seconds. The mean pupillary diameter was increased ($p < 0.001$) after 30 seconds of intracameral injection of lignocaine + epinephrine solution. Before IOL implantation the mean pupillary diameter was sustained to 6.46mm ($p < 0.001$) and at the end of surgery the mean pupillary diameter was sustained to 6.07mm ($p < 0.001$). Total surgical time and ultrasound had statistically insignificant effect on mydriasis.

CONCLUSION

Intracameral lignocaine (0.5%) + epinephrine (0.001%) is a safe, effective and reliable alternative against topical mydriatics for pupil dilatation in phacoemulsification cataract surgery.

A Comparative Study between Proximal Femur Locking Compression Plate and Dynamic Hip Screw Fixation in Management of Per-trochanteric Fracture

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INTRODUCTION

Per-trochanteric fractures are common in elderly people. Dynamic hip screw (DHS) is still considered the gold standard for treating inter-trochanteric fracture. Proximal femoral locking compression plate (PFLCP) is a newer device. The purpose of the study was to compare the outcome of surgical treatment of trochanteric fracture by dynamic hip screw and proximal femoral locking compression plate.

METHODS

In the present study, 60 patients were admitted and followed up for minimum 12 months or till the bone union. Every fracture was classified according to AO classification and functional results were assessed according to Harris hip score.

RESULTS

The mean operative time and average intraoperative blood loss was more in PFLCP group when compared with DHS group and was statically significant. DHS group had marginally better functional result than PFLCP group. There was no difference in the radiological outcome between the two groups.

CONCLUSION

DHS is the best implant for stable inter-trochanteric fracture but PFLCP can also be a good alternative for unstable inter-trochanteric femur fracture.

Role of Antibiotic Prophylaxis in Open Inguinal Hernioplasty (Lichtenstein Hernia Repair): A Prospective Randomized Controlled Study

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INTRODUCTION

Surgical site infections (SSI) are the most common complications secondary to hernia repairs. Use of antibiotic prophylaxis in open inguinal hernioplasty (Lichtenstein hernia repair) has been a conflicting issue. In the present study, the rate of post-operative wound infections in patients of antibiotic prophylaxis group and placebo group was compared.

METHODS

This was a prospective randomized controlled study of 100 cases of Lichtenstein hernia repair which was done over a period of 15 months. 50 patients in antibiotic group received antibiotic ceftriaxon 1 gm and another 50 patient in placebo group received no antibiotic.

RESULTS

All the patients were males and most of the patients were from rural area (78.00%). Total three patients developed SSI (3.00%). In antibiotic group, one patient with superficial SSI and in placebo group, two patients, one with superficial SSI and another with deep SSI were noted (p value =0.557). Superficial SSIs were managed by antibiotics alone and deep SSI was managed by immediate drainage of the wound and broad spectrum antibiotics based on culture sensitivity of the pus drained. There was no need of mesh removal.

CONCLUSION

There was no clear benefit of administering prophylactic systemic antibiotics for open inguinal hernioplasty (Lichtenstein hernia repair) as use of prophylactic antibiotics did not significantly reduce the incidence of wound infections.

Study of Clinical Outcome of Fracture Shaft of Humerus Treated By Intramedullary Interlocking Nailing and Plating in Adults

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INTRODUCTION

The present study aimed to evaluate fracture shaft of humerus in adult patients treated by plating and intramedullary interlocking nailing (IMN) and compare end results of above two procedures by disabilities of the arm, shoulder and hand scoring system (DASH).

METHODS

A total of 45 patients were selected of age group 18-70 years presenting with fracture shaft humerus on the basis of OPD and emergency admissions. Fractures were classified as per AO classification. All patients were treated operatively with intramedullary interlocking nailing or compression plating and its outcomes were assessed using DASH score and complications were observed with follow up to 6 months clinically and radiological imaging.

RESULTS

Out of 45 cases, 25 patients were treated with dynamic compression plating and 20 were treated with intramedullary interlocking nailing. The mean time of union in plating group was 13.4 weeks and for nailing group it was 21.8 weeks. Complications were more in patients were treated with IMN as compared to plating group. Shoulder and elbow joint stiffness and pain were the main morbidity. Mean DASH score for plating group was 25.70 and for nailing was 46.57.

CONCLUSION

The radiological outcome was almost similar but the functional outcome revealed better results in patients treated with compression plating. The rate of complications like joint stiffness, postoperative pain, delayed union and nonunion were low in patients treated with plating than nailing.

A Study of Quality of Life and Trait Impulsivity in Euthymic Bipolar Affective Disorder Patients in Udaipur Region

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INTRODUCTION

Bipolar affective disorder (BPAD) is a chronic psychiatric illness that impairs quality of life (QoL) in numerous life domains even when mood symptoms are not present and is characterized by elevated impulsivity. The objective of this project was to investigate whether impulsivity leads to poor QoL.

METHODS

A total of 60 participants diagnosed with bipolar affective disorder according to ICD-10 criteria who were in euthymic state completed the WHO Quality of Life brief (WHO-QoL-bref) scale Hindi version and the Barratt Impulsivity Scale (BIS-11) Hindi version.

RESULTS

Several subscales of the BIS were significantly negatively correlated with different domains of QoL. The total score of BIS was negatively correlated to all 3 domains of WHOQoL- bref except the psychological domain.

CONCLUSION

The data support the hypothesis that impulsivity is highly correlated with QoL in BD. Interventions targeting impulsivity might help to improve QoL in BD.

Endonasal Endoscopic Dacryocystorhinostomy (DCR): A Comparative Study between Powered and Non-powered Technique

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INTRODUCTION

The aim of the study was to compare the outcome of endonasal Endoscopic Dacryocystorhinostomy (EN-DCR) by powered device (Drill) versus non-powered device (Kerrison punch) with respect to the symptomatic relief, anatomic and functional patency, post operative quality of life of patients, operating time, and intraoperative and post-operative complications.

METHODS

This was a prospective, analytical, longitudinal study involving 50 adult patients who had undergone EN-DCR. Operations were alternatively assigned and divided into 2 equal study groups: group A included patients to be operated with drill technique and group B included patients operated by kerrison punch.

RESULTS

Disease was more common in rural housewife, females working in smoke of 'chullas' and using kajal, having epiphora as their chief complaint (100%). There was a statistically significant difference between operating times using the drill (54 to 180 minutes) compared with kerrison punch (36 to 126 minutes). The success rate in terms of symptomatic relief was 92% in group A, while 88% in group B. In group A, success rate of anatomical patency and operative site was 88%, while in the group B, was 84%. p value in terms of anatomical success was 0.849 and 0.637 in terms of functional success ($p > 0.05$) showing no significant difference.

CONCLUSION

The use of advanced tools like drills may not be necessary to increase the success rate for endoscopic DCR in general.

Correlation of Spirometric Indices with Six Minute Walk Distance [6MWD] in Stable Chronic Obstructive Pulmonary Disease (COPD) Patients, at a Tertiary Care Centre, Udaipur

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INTRODUCTION

Beside spirometry, 6 minute walk test is available to monitor the disease progression and also used to characterize the functional status and outcome measure of COPD patients. Thus, this study was aimed to correlate spirometric indices with 6 minute walk distance [6MWD] in stable COPD patients and to also correlate it with SpO₂ and other disease related factors.

METHODS

This prospective study was conducted in 100 stable COPD patients. Following tests were performed: spirometry for diagnosis and assessment of severity of COPD, 6 minute walk test (6MWT) according to ATS guideline, the oxygen saturation using portable pulse oximeter will be recorded before and after 6MWT.

RESULTS

The study found significant negative correlation between 6 MWD and mMRC grades of dyspnea ($r = 0.516, p < 0.001$), BODE index ($r = 0.761, p < 0.001$) and BORG scale dyspnea ($r = 0.623, p < 0.001$). There was significant positive correlation between 6MWD and post-6MWT SpO₂ ($r = 0.482, p < 0.001$). On correlating 6MWD with multiple spirometry parameters, strong positive correlation was found between 6MWD with FEV₁ ($r = 0.449, p < 0.001$), FVC ($r = 0.417, p < 0.001$), and FEV₁/FVC ($r = 0.372, p < 0.001$).

CONCLUSION

In COPD patients, 6MWT is a useful test to assess severity of disease and can be used to assess severity of COPD at places where spirometry is not available.

Asymptomatic Cryptococcal Antigenemia in People Living with HIV with Severe Immunosuppression in North-West Rajasthan

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INTRODUCTION

WHO in 2011 recommended that countries with a prevalence of CrAg of more than 3% in their population should consider routine screening and treatment for cryptococcal antigenemia even before ART initiation of ART-naïve adults with CD₄T cell count <100 cells/mm³. The aim of the present study was to estimate the burden of asymptomatic cryptococcal antigenemia in people living with HIV with severe immunosuppression.

METHODS

This prospective study included all consenting patients >18 years of age with CD4 count <100 cells/mm³ who were screened for CrAg by latex agglutination assay. Those with positive CrAg underwent cerebrospinal fluid analysis, chest radiograph, and abdominal ultrasound to rule out cryptococcal disease.

RESULTS

The mean age of 116 study subjects was 35.82 ± 10.54 years. Mean CD4 count was 66.69 ± 22.88 cells/mm³ and 24.14% subjects had CD4 < 50 cells/mm³. Overall, 6 (5.17%) cases were positive for CrAg, of which 4 (66.67%) had CD4 cells <50 cells/mm³ and 1 (16.67%) CrAg-positive case had incidental cryptococcal meningitis. At 3 and 6 month follow-up, the case fatality rate was significantly higher amongst CrAg-positive cases compared with CrAg-negative cases.

CONCLUSION

The national programme should consider implementation of universal, routine CrAg screening of HIV cases with CD4 <100/mm³ followed by pre-emptive fluconazole treatment for CrAg positives to prevent cryptococcal meningitis and its associated mortality.

A Study of the Prevalence of Thyroid Dysfunctions in Patients of Diabetes Mellitus Type 2 in Western Rajasthan

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INTRODUCTION

Diabetes is one of the commonest health problems and evidence from literature suggests that the intricate bond between thyroid disorder and diabetes mellitus deceptively contributes to micro and macro-vascular complications. This study was undertaken to establish an association between prevalence of thyroid disorders in type 2 diabetic patients.

METHODS

This one-year cross-sectional study was done on 100 patients with type 2 diabetes mellitus. Patients were subjected to clinical examination, laboratory workup like thyroid function test, fasting and post prandial blood sugar level, glycosylated haemoglobin, creatinine, and urea.

RESULTS

The commonest age group was 46-60 years with mean age of 54.82 years and male to female ratio of 1:1. The prevalence of thyroid disorder was 33%, of which subclinical hypothyroidism was 17%, followed by 14% primary hypothyroidism and primary hyperthyroidism in 2%. In control group, 17% patients had thyroid disorder in which sub-clinical hypothyroidism was more common. The mean HbA1C was higher in patients with thyroid disorder compared to euthyroid patients.

CONCLUSION

Thyroid dysfunction was widely prevalent in patients with type 2 diabetes in the study, hence, it is prudent to screen for or to ask for thyroid panel in diabetics which will help in improving the quality of life and reduce the mortality rate.

Role of Intraperitoneal Antibiotic Lavage to Reduce Surgical Site Infection in Emergency Laparotomies in Hollow Viscera Perforation Peritonitis Cases

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INTRODUCTION

The objectives of the present study were to compare the incidence of post-operative wound infection in cases of hollow viscera perforation peritonitis who had per operative antibiotic lavage versus who had per operative lavage with normal saline only; and duration of inpatient stay between the two groups; and to find the common microorganisms causing SSI.

METHODS

In this hospital based randomized comparative study 60 patients who fulfilled the selection criteria were included. After the definitive surgery, patients were divided into two groups either to receive intra-peritoneal lavage with antibiotics (group A) or lavage with normal saline only (group B). In patients with postoperative wound infection, the discharge was sent for culture sensitivity, standard practice of wound care was done (with regular dressings), and outcome of wound was recorded.

RESULTS

The incidence of SSI was lower in the study group as compared to the control group. *E. coli* was the most common microorganism isolated from the culture sensitivity of wound discharge irrespective of the group. Mean duration of hospital stay was 13.1 days in study group and 14.9 days in control group.

CONCLUSION

Intraoperative peritoneal lavage with antibiotics has beneficial effects in terms of reduction in incidence of postoperative SSI, and in-patient hospital stay.

Modified Scoring System Preoperatively to Access Difficult Laparoscopic Cholecystectomy

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INTRODUCTION

Laparoscopic cholecystectomy (LC) can occasionally become difficult, taking longer time to complete, or have to be converted to an open procedure. But there is no well known scoring system available to predict the degree of difficulty of LC preoperatively. The aim of the present study was to evaluate the existing scoring system and to develop a reliable scoring system to predict difficult LC preoperatively.

METHODS

A prospective observational study was conducted on 100 cases were operated by a single experienced laparoscopic surgeon. There was a total of 20 score from history, clinical, sonological, and laboratory findings. Score up to 7 predicted easy, 8-14 difficult and >14 very difficult. The score was analyzed with per-operative outcome.

RESULTS

Out of all, 72% were predicted easy, 28% difficult and none of cases very difficult preoperatively, whereas 70% turned out to be easy, 28% difficult, and 2% needed to be converted during surgery. Factors like BMI > 27.5 ($p = 0.006$), with history of previous hospitalization for same complaints ($p = 0.001$), complaint of fever ($p < 0.05$), clinical findings per abdomen (tender) ($p < 0.05$), palpable GB ($p = 0.018$), USG-thick walled (> 3mm) gall bladder ($p = 0.001$), USG-pericholecystic collection ($p = 0.005$), USG-impacted stone ($p = 0.001$), and raised TLC ($p < 0.05$) were found statistically significant in prediction of difficult laparoscopic cholecystectomy.

CONCLUSION

The proposed scoring system is reliable statistically with sensitivity of 94.59% and specificity of 86.66%.

A Study of Relationship between Serum Prostate Specific Antigen and Prostate Volume in Benign Prostatic Hyperplasia

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INTRODUCTION

Emerging data suggest a direct correlation between prostate specific antigen (PSA) and prostate volume in patients with lower urinary tract symptoms (LUTS) and clinical evidence of benign prostatic hyperplasia (BPH). The present study aimed to assess the serum PSA level in patients of benign prostatic hyperplasia and compare it with the prostatic volume by trans abdominal ultrasonography.

METHODS

A total of 40 patients were included in this hospital based study. The analyses included a baseline prostate volume measured by trans-rectal ultrasound (TRUS) and baseline serum PSA alongwith routine investigations. Patients older than 80 years of age, with a baseline serum PSA greater than 10 ng/ml, and patient with nodular prostate on DRE examination were excluded to reduce the likelihood of including occult prostate cancer cases. Those with suspicious findings underwent TRUS-guided biopsy; only patients with negative biopsies were included in these analyses.

RESULTS

In the present study, the prostate volume in men with BPH had a logarithm relationship with serum PSA level and age dependent increase; the rate of increase with each decade being higher for PSA than PV i.e. 20.6% and 13.1% respectively.

CONCLUSION

Serum PSA can be used to estimate the degree of prostate enlargement, accurately enough for it to be useful tool in making therapeutic decisions. Prostate volume is strongly related to serum PSA in men with BPH in whom, no evidence of prostate cancer and the relationship depends on age.

Efficacy of the P-POSSUM Scoring System as a Prognostic Indicator in Patients Undergoing Emergency Laparotomy

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INTRODUCTION

Continuous audit of surgical practice is essential in enhancing patient care and lowering health care cost. This prospective study aimed to assess the validity of the P-POSSUM score in predicting the risk of morbidity and mortality and to identify the risk factors for poor outcome at a tertiary care teaching hospital in India.

METHODS

A prospective study of 100 patients (70 emergency and 30 elective) undergoing emergency laparotomy were included in the study group. The risks of mortality and morbidity were calculated by using P-POSSUM equation. The predicted risks were compared with the observed risks of mortality and morbidity and statistically analysed.

RESULTS

The overall mortality rate of 11% with (O:E = 0.85, p = 0.59) and morbidity rate of 41% with (O:E = 0.78, p = 0.089). Higher percentage of mortality and morbidity were found with higher P-POSSUM scores in all the factors. Chest infections (18%), pyrexia (15%), and wound infections (14%) were the areas requiring prompt care to minimize mortality rate.

CONCLUSION

With P-POSSUM, outcome of the patient and operative risk can be predicted and pre-operative counselling, optimization, implementing resuscitative measures, and adequate care in specific high risk groups can be given with targeted interventions; improving quality of care, and cost reduction.

Incidence of Incidental Gall Bladder Malignancy

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INTRODUCTION

The carcinoma of gall bladder is rare. The study was conducted to study the incidence of incidental gall bladder carcinoma (IGBC) in patients undergoing routine cholecystectomy and to study the demographic profile and management of these patients.

METHODS

A retrospective plus prospective study was conducted from January 2016 to August 2018. A total of 2371 patients were included in this study. All patients who have undergone cholecystectomy for cholelithiasis were included in this study.

RESULTS

There were 868 males (36.6%) and 1503 females (63.4%). The mean age of IGBCs patients was significantly higher. Laparoscopic cholecystectomy was performed in 1458 patients out of 2371. All gallbladder specimens were sent for HPE and twenty eight were reported as adenocarcinoma of the gall bladder. In the present study, out of 28 IGBC patients, 10 underwent radical cholecystectomy (pT1b), 3 patients underwent extended radical cholecystectomy (pT2), 5 patients never followed up and 7 patients followed up late with loco-regional recurrence. Three patients were managed with only simple cholecystectomy since the pathological staging showed pT1a. Incidental gall bladder cancer was thus found in 1.18% of patients undergoing cholecystectomy for cholelithiasis.

CONCLUSION

The practice of routine submission of all excised gall bladders for histopathological examination should continue.

Sensitivity and Specificity of FNAC and Tru-Cut Biopsy in a Case of Palpable Breast Lump

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INTRODUCTION

Fine needle aspiration cytology (FNAC) has been proved to be of great value in the diagnosis of breast lumps. It is relatively easy and can be performed on an outpatient basis. It also avoids unnecessary excisional biopsy. This study aimed to find out the sensitivity, specificity, and efficacy of FNAC and Tru-cut biopsy with respect to clinically palpable breast lumps by comparing it with the histopathological (gross specimen) reports and to find limitations of FNAC and Tru-cut biopsy.

METHODS

The present study includes 40 patients with breast lump whose FNAC and Tru-cut biopsy were taken and confirmed by histopathology.

RESULTS

The overall sensitivity of FNAC was 86.11% and that of Tru-cut biopsy was 97.14%. The overall specificity of both FNAC and Tru-cut biopsy was 100%. The accuracy rate was 87.5% for FNAC, 97.5% for Tru-cut biopsy, and combined accuracy was 100%. The overall specificity of FNAC and Tru-cut biopsy was 100% in the present study.

CONCLUSION

FNAC should be used as the first line investigation and inadequate or incomplete FNAC can be largely resolved by repeat sampling or using core needle biopsy (CNB) as a second line method for confirmation of pathology.

Comparative Study of Open Cholecystectomy with and without Drain

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INTRODUCTION

Drainage in open cholecystectomy is a matter of considerable debate. The objectives of the present study were to compare post-operative abdominal complications like wound infection, biliary peritonitis, subhepatic collection/abscess associated with open cholecystectomy with and without drain and to compare post-operative pain and hospital stay in open cholecystectomy with and without drain.

METHODS

A prospective study of 100 patients with primary diagnosis of chronic calculous cholecystitis and underwent elective open cholecystectomy was conducted over a period of one years from July 2017 to June 2018.

RESULTS

In the present study, highest incidence of cholelithiasis was in 5th decade (35%) with an increased incidence in women (76%). Wound infection was noted in 10% in drain group and 4% in without drain groups. Patients in drain group had more post-operative pain, subhepatic collection, and longer hospital stay. There was no difference noted in chronic abdominal pain in both drain and without drain groups.

CONCLUSION

Surgical drainage after open cholecystectomy is unnecessary and is associated with an increased incidence of postoperative morbidity, wound infection, post-operative pain, chest complications, pyrexia, and prolonged hospital stay.

Evaluation of Techniques and Side Effects of Inhalational Therapy in Patients of Obstructive Airway Diseases

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INTRODUCTION

The inhaled route is preferred for the delivery of the drugs in treating obstructive airway diseases. Devices are complicated to use, requiring many steps for a correctly performed inhalational maneuver. Therefore, the study was conducted to assess the techniques of inhalational devices, effect of education imparted, and side effects related to it.

METHODS

A hospital based descriptive study was conducted among 120 patients of obstructive airway diseases. Steps of the inhalational techniques were first evaluated, then participants were taught about the correct techniques, re-assessed the various steps of techniques after one month and found out the side effects related to it.

RESULTS

In both DPI and MDI users, no/incomplete exhalation was the most common faulty step followed by no/short breath hold. Errors were corrected maximally in patients aged 30-39 years (66.7%), in females (44%), among literate subjects (54.3%), among non smokers (48.8%), in patients with bronchial asthma (57.1%), among DPI users (47.8%), in patients educated initially by physician (63%), among subjects using device for 12-36 months (43.5%) ($p < 0.05$). Side effects were less after correction of techniques.

CONCLUSION

The physician should advice and check a every visit about the correct techniques in every patient to improve the quality of inhalational therapy.

A Comparative Study of Cyanoacrylate Glue versus Sutured Mesh Fixation for Lichtenstein Inguinal Hernia Repair

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INTRODUCTION

Success of inguinal hernia repair is measured primarily by the permanence of the operation, fewest complications, minimal costs, and earliest return to normal activities. The purpose of this study was to establish the influence of use of cyanoacrylate glue in fixation of mesh in Lichtenstein inguinal hernia repair and its comparison to the Lichtenstein repair with suture fixation of mesh.

METHODS

A total of 50 patients with inguinal hernia were randomly divided into two groups, each group having 25 patients. Group A: classical Lichtenstein technique and group B: Lichtenstein technique with mesh gluing with cyanoacrylate.

RESULTS

The mean duration of the total surgery in 'suture group' was 36.56 ± 2.27 minutes while that in 'glue group' was 31.68 ± 3.31 minutes. Significant difference of 4.88 minutes with p value < 0.001 was present. Overall patients in 'glue group' experienced significantly less postoperative pain compared to 'suture group' on POD 1, 3, 7 and 15 (p value < 0.001). On comparing chronic pain, difference between the two groups was statistically significant, with incidence of chronic groin pain significantly higher in suture group.

CONCLUSION

Glue fixation of mesh is easy to perform and is easily reproducible. It is not associated with needle related complications. Glue fixation of mesh is definitely a promising procedure and has a lot of potential to replace suture fixation of mesh in Lichtenstein repair.

Hepatic Trauma: A Prospective Study

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INTRODUCTION

Hepatic trauma constitutes 5% of all traumas. The present study aimed to know the various modes of hepatic injury in the local population and its incidence, the clinical presentation of patients and classification of type of liver injury and outcome of operative versus conservative management, and to determine the overall pattern of hepatic trauma.

METHODS

In this a prospective study all patients of hepatic trauma were grouped into five on the basis of mode of injury: 1) fall from height, 2) road traffic accident, 3) blast, 4) assault, and 5) occupational. Each group was subdivided into two sub groups on the basis of type of injury: (a) blunt and (b) penetrating. Each sub group was further subdivided into two, on the basis of management part: (1) non-operative and (2) operative.

RESULTS

There were total of 40 cases of hepatic trauma that accounted for 0.0734% of total hospital admission. Out of 40 cases, 31 cases were of road traffic accidents, 07 of fall from heights, 02 of penetrating injuries. In the present study 38 (95%) cases were of blunt hepatic trauma; 02 (05%) of penetrating injury, Ten cases (25%) were in shock at the time of admission and three developed within 24 hours. 29 cases were treated by conservative method and 11 were managed surgically. Mortality due to blunt hepatic injury was 10.5% and the mortality with the penetrating injury was 50%.

CONCLUSION

Patients with liver injury should be clinically evaluated, resuscitated and investigated with FAST. Haemodynamic stability and not the CT scan grading should decide the future management of patient with liver injury.

Efficacy of Intralesional Injection of Autologous Platelet Rich Plasma versus Normal Saline Dressing in Chronic Non-Healing Ulcers

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INTRODUCTION

The aim of this prospective randomized study was to evaluate the effect of application of autologous PRP versus normal saline (NS) at chronic non healing ulcer in relation to wound healing.

METHODS

A total of 54 four patients with chronic non-healing ulcer (size upto 20 cm²) were randomly divided into two equal groups: PRP group and NS group. Observations were made regarding pain, slough, discharge, granulation, reduction in ulcer size and volume on every 7th day till 4 weeks.

RESULTS

Reduction in area of ulcers at the end of treatment was 12.27 ± 4.10 cm² in PRP group and 9.25 ± 1.89 cm² in NS group ($p = 0.001$). Volume reduction in chronic ulcers on 28th day was 6.88 ± 5.26 cm³ in PRP group and 4.25 ± 1.05 cm³ in NS group ($p = 0.01$). In PRP group 59.25% had no discharge while in NS group no patient was without discharge on 28th day. Granulation tissue appeared in 88.89% ulcers and 33.33% ulcers at 7th day in PRP group and NS group respectively. In PRP group 74.08% patients had no slough and 62.97% had no pain whereas in NS group 14.81% patient had no slough and 74.07% had minimal pain on 28th day. In PRP group 22.22% ulcers were completely healed while in NS groups all ulcers were partially healed.

CONCLUSION

PRP is more effective than NS on chronic non-healing ulcers as it causes more rapid healing, promotes early appearance of granulation tissues, rapid relief from pain and early decrease in discharge and slough.

Electric Burn: A Study Regarding Clinical Course at Tertiary Centre in Western Rajasthan

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INTRODUCTION

Electric burns can cause temporary or permanent damage to the skin, tissues, and major organs. Extent of the damage depends on the strength and duration of the electrical current. The present study aimed to study pattern of electrical injuries coming to a tertiary health care centre and to study the commonest complications renal, cardiac, and hepatic and their outcomes.

METHODS

This prospective study was carried out on patients admitted in burn unit from January 2018 to December 2018. Bed head tickets of the patients were evaluated in detail and records were collected.

RESULTS

The study included 113 patients of electric burn with maximum patients in age group of 21-50 years (59.29%) and among these 95 (84.07%) were male and remaining 18 (15.93%) were females with a mortality of 10 (10.52%) in male and 2 (11.11%) in female. The average duration of hospital stay was 13.23 days. The procedure fasciotomy done in 35.4% patients, amputation in 38.94%, debridement in 37.17%, and splits skin grafting in 15.93% patients. Out of 113 patients, 18 (15.93%) had deranged renal function, 12 (10.62%) had ECG changes, 25 (22.12%) had deranged liver function at time of admission, out of them 3 patients each died due to renal failure and cardiac failure.

CONCLUSION

Morbidity increases with increase in severity of burn till 50% BSA. After that (in > 50% BSA) mortality supervenes the morbidity.

To Study Sputum Cytology in COPD and Bronchial Asthma Patients

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INTRODUCTION

Sputum induction is relatively non-invasive and an easily repeated procedure, cytological evaluation of induced sputum plays an important role in the evaluation and monitoring of the chronic airway inflammation. This study aimed to study the sputum cytology profile in COPD and bronchial asthma and to correlate with FEV1 % predicted.

METHODS

This study was carried out in COPD and asthma patients (50 patients each) admitted in TB and Chest Hospital. After diagnosis and assessment of asthma and COPD which includes pre and post bronchodilator assessment, morning induced sputum was collected and haematoxylin and eosin stained specimen underwent cytology.

RESULTS

Neutrophilic (58%) phenotype was commonest among COPD patients but eosinophilic phenotype (20%) was also found in significant number of cases. In asthmatics, eosinophilic (40%) phenotype was commonest and 28% patients had paucigranulocytic phenotype but 20% had neutrophilic phenotype. There was negative correlation between sputum eosinophil and FEV1 % predicted in both COPD ($r > 0.329$; $p < 0.05$) and asthma ($r > 0.313$; $p < 0.05$). At threshold of 4% peripheral blood eosinophil counts enabled identification of the presence or absence of sputum eosinophilia ($> 3\%$) was in 94% and 82% of the COPD and asthma cases, respectively.

CONCLUSION

The management of COPD and bronchial asthma should be planned and initiated on the basis of their sputum cytology.

Study of Corrected Serum Calcium Level in Patients of Active Pulmonary Tuberculosis

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INTRODUCTION

Pulmonary TB is a granulomatous infection caused by Mycobacterium tuberculosis. This study aimed to assess corrected serum calcium level in the patients of active Pulmonary Tuberculosis and to correlate it with other disease related factors.

METHODS

A total 100 patients of active pulmonary TB were taken excluding drug resistant-TB, HIV, DM, pregnancy, calcium and metabolic or endocrinal diseases. Parameters observed and correlated with corrected serum calcium AlisJohBana symptom score, radiographic extent of disease/sputum smear grading, hemoglobin, BMI, smoking index, DOTS category and TDI.

RESULTS

A significant derangement in corrected serum calcium was there. Before correction 93% patients were hypocalcemic and after correction 67% cases were hypocalcemic. On correlation with above parameters, hypocalcemia was associated with high sputum smear grading, low hemoglobin, low BMI, low albumin, low vitamin D₃ levels

CONCLUSION

Corrected hypocalcemia highly correlation with low BMI, low albumin and anemia and was irrespective of total duration of illness, smoking and treatment category which reflects the hypocalcemia to be due to poor nutrition and low intake of calcium in our area.

Evaluation of Clinico-Radiological and Functional Profile of Patients Suffering from Bronchiectasis

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INTRODUCTION

Considered more of an orphan disease without much research work. This study aims to describe the clinical, radiological and functional characteristics of patients with bronchiectasis.

METHODS

It was prospective type of cross sectional study with 80 patients conducted for one year. Patients with symptoms and clinical findings suggestive of bronchiectasis were subjected to chest X-ray followed by HRCT. All patients were assessed with spirometry, sputum culture. Severity was assessed by FACED scoring.

RESULTS

Average lung involvement was two or more lobes and cylindrical bronchiectasis was most common. Shortness of breath (91%) and cough with sputum production (87%) were most common complaints. The most common functional impairment was obstructive (58.75%). Mean predicted FEV1 in spirometry was $55.85\% \pm 15.08\%$. Patients colonized with *P aeruginosa* suffered more severe disease and significantly more exacerbations than patients without *P aeruginosa* colonization. Increased number of lobes involvement and destructive cystic types had significant correlation with pseudomonas culture ($p < 0.001$).

CONCLUSION

Bronchiectasis is a progressive disease with increased morbidity and mortality. While radiology plays an important role in diagnosis, microbiology play in important role in treatment and preventing exacerbations/ disease progression.

Prevalence and Correlates of Osteoporosis in Chronic Obstructive Pulmonary Disease Patients

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INTRODUCTION

Osteoporosis is one of the systemic effects associated with COPD. The aim of present study was to determine the prevalence of osteoporosis in COPD patients and correlate it with Vitamin D3 level and other COPD related factors.

METHODS

This study was conducted on 50 COPD patients admitted in TB and chest hospital. After routine investigations following investigations were performed: spirometry for diagnosis and assessment of severity of COP, serum levels of calcium, vitamin D3 albumin, digital X-ray of thoraco lumbar spine, and pelvis. BMD (bone mineral density) of right radius using the Lunar DPX DXA System.

RESULTS

Prevalence of osteoporosis in COPD patients was very high i.e. 50% and that of osteopenia was 41%. Only 7% of COPD patients had normal BMD. Significant correlation of osteoporosis was found with age and COPD severity. 75% of COPD patients was malnourished and half of these had osteoporosis. Correlation of osteoporosis with Vitamin D3 levels was not seen; indicating that pathogenesis of osteoporosis in COPD is multifactorial. Correlation with age of the patients and total duration of illness was not significant. Correlation of low bone mineral density with inhaled corticosteroid treatment was not seen.

CONCLUSION

COPD patients with severe COPD, and age > 60 years must be investigated for osteoporosis and given appropriate treatment for prophylaxis and management of osteoporosis.