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A Comparative Study between Dexmedetomidine and Fentanyl Added to Ropivacaine in Subarachnoid Block

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INTRODUCTION

Many adjuvants are used with local anaesthetics in spinal anaesthesia for better intra and postoperative outcome. Dexmedetomidine, alfa-2 agonist and Fentanyl are now being used as neuraxial adjuvant. The aim of the present study was to compare the block characteristics of Dexmedetomidine and Fentanyl when used intrathecally as an adjuvant to 0.5% isobaric Ropivacaine.

METHODS

Sixty patients scheduled for abdominal and lower limb surgeries were randomly allocated to receive either 2.5 ml of 0.5 % isobaric Ropivacaine (12.5 mg) with 0.5 ml Dexmedetomidine (5 mcg) intrathecally or 2.5 ml of 0.5 % isobaric Ropivacaine (12.5mg) with 0.5 ml Fentanyl (25 mcg) intrathecally. Haemodynamic parameters, onset and duration of sensory and motor block, sedation, and pain score were assessed.

RESULTS

Both groups were comparable in terms of age, weight, sex, ASA grade, side effects, and onset of sensory and motor block. Duration of analgesia was significantly prolonged in Dexmedetomidine group (361.34±27.25 minutes) compared to the Fentanyl group (247.7±34.57 minutes) (p value <0.05). Duration of motor blockade was significantly prolonged in the Dexmedetomidine group (232±14.23 minutes) compared to Fentanyl group (177.33±13.27 minutes) (p value <0.05). Sedation and analgesia were better in the Dexmedetomidine group.

CONCLUSION

This study successfully demonstrated that Dexmedetomidine is a better intrathecal adjuvant in spinal anaesthesia as far as patient comfort, stable cardio-respiratory parameters, intra-operative, post-operative analgesia, and adverse effects were concerned.

A Prospective Observational Study of Rhino-orbito-cerebral Mucormycosis in COVID -19 Pandemic Period

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INTRODUCTION

Mucormycosis was quite common in people recovering or suffering from SARS COVID-19. The present study aims to evaluate various risk factors associated with sudden surge in the cases of mucormycosis in COVID pandemic era, various epidemiological factors, clinical feature, common sites and radiological involvement and long-term complications following treatment.

METHODS

The present prospective observational study was conducted on 66 confirmed mucormycosis cases. These patients were then operated for FESS, medial maxillectomy via modified endoscopic denkers approach, hemimaxillectomy or total maxillectomy and some also underwent evisceration, depending on the severity and extension of disease. Cases were followed up to look for prognosis, recurrence and complication.

RESULTS

Majority patients belonged to 41-60 years of age. 45% patients were positive for COVID-19 on RT-PCR. Extensive use of steroids, new onset diabetics, prolonged oxygen therapy and inflammatory cytokines surgery were found to be major risk factors in COVID patients. Maxillary sinus was the most common sinus involved. Commonest symptom were nasal obstruction and headache. Complications observed were hypoesthesia of cheek (6.1%), vision loss (6.1%), gum inflammation (4.5%), facial palsy (4.5%), recurrence over palate (4.5%), dacrocystitis, seizures, maggots at surgical site (1.5%). Mortality accounted for 9.1%.

CONCLUSION

Early treatment for the disease, staged surgery for debridement of dead tissue, regular follow ups and judicious control of blood sugar improved the outcome and survival of patients in postoperative period.

The Role of AGESS-SBO Scoring System in Predicting the Prognosis, Morbidity and Mortality in Small Bowel Obstruction at a Tertiary Care Centre in Western Rajasthan

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INTRODUCTION

Acute small bowel obstruction (SBO) is caused mainly by postoperative adhesions (75%), Crohn's disease (7%), neoplasm (510%), hernia (2%), or radiation-induced enteritis (1%). Acute General Emergency Surgical Severity-Small Bowe Obstruction (AGESS SBO) is the only scoring system available so far to help us towards making an accurate diagnosis to estimate prognosis and outcome of SBO and ability to predict the hospital complications.

METHODS

This was an institutional based prospective observational study including 55 participants >18 years of age with symptoms of intestinal obstruction. Detailed history of patients was taken. Routine blood investigations and radiological investigations were done. The AGESS-SBO scoring was calculated. Once the patient had recovered, the accuracy of the score in predicting the management of the patient was analysed.

RESULTS

Out of total, 37 patients underwent operative treatment of which 93.10% had a score of >2 while 18 patients underwent conservative management of which 61.54% had a score of ≤2. Eight patients developed post-operative complications of which 7 patients had a score of >2. During this study, 9 patients died (all had a score of >2). There was a statistically significant correlation between the AGESS-SBO score and the modality of treatment, prognosis and mortality of patients.

CONCLUSION

AGESS-SBO scoring system is efficient in guiding the treatment, predicting complications and mortality and the length of hospital stay of patients.

Comparison of Analgesic Effect of Clonidine as Adjuvant with 0.375% Ropivacaine in Ultrasound Guided Thoracic Paravertebral Block in Modified Radical Mastectomy: A Prospective Randomized Double-Blind Study

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INTRODUCTION

Thoracic paravertebral block (TPVB) appears promising for reduction of postoperative pain after breast cancer surgery. This study was undertaken to compare the analgesic efficacy of Clonidine as adjuvant with Ropivacaine for USG guided TPVB in Modified Radical Mastectomy.

METHODS

In this prospective randomized double blind clinical study, 78 ASA grade I, II female patients aged 18-60 years undergoing MRM surgery were randomized into two groups- RP and RC to receive 0.375% Ropivacaine 19 ml and 0.375% Ropivacaine 19 ml+Clonidine (1µg/kg) diluted up to total 20 ml with normal saline, respectively. USG guided TPVB was performed at T4 level as single injection followed by administration of general endotracheal anaesthesia. The primary outcome measured was duration of analgesia. Secondary outcomes measured included consumption of rescue analgesic, VAS, and perioperative haemodynamic parameters..

RESULTS

Mean duration of analgesia was prolonged in Clonidine groups RC as compared to group RP (16.87±1.55 hr v/s 7.00±1.17 hr, p=0.00). Similar observations were noted when VAS, total dose (group RC 84.62±25.40 mg and group RP 184.62±45.02 mg, p=0.00) and number of rescue analgesic requirement (group RC 1.13±0.39 and group RP 2.46±0.60, p=0.00) were compared between groups.

CONCLUSION

Addition of Clonidine to Ropivacaine in USG guided TPVB during breast cancer surgery results in lower pain scores, prolong duration of analgesia, and reduce postoperative requirement of rescue analgesics.

Comparison of Two Approaches of Subcostal Transversus Abdominis Plane Block-Laparoscopy-guided v/s Ultrasound-guided for Post-operative Analgesia in Patients Undergoing Laparoscopic Cholecystectomy: A Randomised Comparative Clinical Trial

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INTRODUCTION

Laparoscopic guided transversus abdominis plane (TAP) block is an alternative in places where ultrasound machines or its expertise is not available. Our primary objective was to compare the success rate of ultrasound guided and laparoscopic guided TAP block, secondary objectives were to compare the time for onset, and duration of analgesia, VAS score, consumption of rescue analgesia (inj. Tramadol) and patient satisfaction along with hemodynamic parameters and side effects in post operative period for 24 hours.

METHODS

130 patients undergoing laparoscopic surgery were randomly divided into 2 groups receiving either ultrasound guided TAP block (USG-TAP) or laparoscopy guided TAP block (LAP-TAP) at the end of surgery before extubation. Success rate was assessed with sensory blockade of T7, T8 dermatome 30 mins after extubation. Duration of analgesia was taken from completion of block to first rescue analgesia given (inj tramadol 100 mg iv in 100 ml NS). Total rescue analgesia required in 24 hours was noted. Patient satisfaction score was assessed with Likert scale. Hemodynamic parameters and side effects were monitored in the post operative care unit (POCU).

RESULTS

The success rate was equal (100%) in both the groups. Onset of analgesia took slightly longer in group LAP-TAP (15.4±2.1mins) than group USG-TAP (13.4±2.2 mins) that was statistically significant (p=0.0001). Duration of analgesia, VAS score at different time intervals, total dose of rescue analgesia required hemodynamic parameters and side effect profiles of both the groups were similar with no statistical significance

CONCLUSION

Laparoscopic-guided TAP block offers early mobility, reducing hospital stay and reduced morbidity in post operative period. Both the techniques are safe with equal duration of analgesia and devoid of any serious complications.

A Clinical and Dermoscopic Study of Tinea Capitis Attending Dermatology OPD at Tertiary Care Centre in South Rajasthan

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INTRODUCTION

Tinea capitis is a common fungal infection of scalp, especially in pediatric age group with an increased incidence. Trichoscopy is a non-invasive technique, allowing rapid and magnified in-vivo observation of the skin with the visualization of morphologic features often imperceptible to the naked eye. The aim of the study was to evaluate the usefulness of trichoscopy in clinical diagnosis and to study various clinico-morphological patterns of tinea capitis.

METHODS

This cross sectional, observational study included 140 clinically diagnosed cases of tinea capitis during the period of 1 year, which were evaluated using a Dermoscope.

RESULTS

Incidence rate of tinea capitis in this study is 2.69 per thousand population. The most common clinical variant was grey patch followed by black dot and commonest etiological agent was *Trichophyton tonsurans*. The characteristic trichoscopic features noted were: comma hairs (80%) followed by corkscrew hairs (68.6%), bent hairs (54.2%), zigzag hairs (35.7%) and morse code-like hairs. Other nonspecific findings were scaling (89.2%), followed by black dot (67.1%), broken hairs (42.8%), crusting and pustules (32.1%), 'i' shaped hairs (12.1%), pig tail hairs (6.42%) and 'L' shaped hairs (5%). Comma and corkscrew shaped hairs were most commonly found in black dot type of tinea capitis whereas zigzag, bent hairs and morse code hairs were most commonly found in Grey patch type of tinea capitis.

CONCLUSION

Trichoscopy can nowadays be considered as a novel tool for rapid diagnosis, selection of the appropriate therapy and in the monitoring of treatment efficacy of tinea capitis.

To Evaluate the Effect of Ultrasound-Guided Fascia Iliac Compartment (FIC) Block and Pericapsular Nerve Group (PENG) Block on the Post-Operative Analgesia in Patients Undergoing Hip Surgeries

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INTRODUCTION

Fracture around the hip joint is a common injury, associated with excruciating pain preoperatively and postoperatively. The purpose of this study was to compare the analgesic efficacy of pericapsular nerve group block as compared to fascia iliaca compartment block in patients undergoing hip surgeries.

METHODS

Total 80 patients of ASA grade I/II aged 18 to 70 years undergoing hip surgeries were randomized into 2 equal groups. All patients received spinal anaesthesia and later Group PENG patients received 30 ml of 0.5% Levobupivacaine whereas Group FICB patients received 30 ml of 0.5% Levobupivacaine. The duration of analgesia, post operative NRS score at rest and at movement, hemodynamic parameters, analgesic consumption, any adverse event, and patient satisfaction were noted. The data obtained was analysed using statistical package for social science (SPSS 24.0 version). Quantitative variables were compared using student's t-test and qualitative variables were compared using Chi-square test and Fischer exact test.

RESULTS

Duration of analgesia was significantly prolonged in group PENG as compared to group FICB ($p < 0.001$). Post op NRS score improved in PENG group as compared to FICB group and was statistically significant ($p < 0.0001$). Hemodynamic variability between two groups was comparable.

CONCLUSION

PENG block prolongs duration of analgesia better and better post operative NRS scores with less opioid consumptions compared to FICB block in patients undergoing hip surgeries.

A Study on Second Line Drug Resistance Mutations among Mycobacterium Tuberculosis Isolates of Pulmonary and Extrapulmonary Tuberculosis Samples

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INTRODUCTION

Fluoroquinolone antibiotics are among the most potent second line anti-tubercular drugs these days. The aim of the study was to analyse the frequency and pattern of genetic mutation in pre-extensive (pre-XDR) and extensive drug resistant Mycobacterium tuberculosis using second-line line probe assay and to compare drug resistant mutations with different treatment outcomes.

METHODS

Sputum, lymph node aspirate and cold abscesses from patients with rifampicin resistant TB were subjected to first line and second line Line Probe Assay to assess additional drug resistance to fluoroquinolones (Levofloxacin and Moxifloxacin). The genetic mutation pattern was analysed and compared with demographic, clinical and other parameters. Final treatment outcomes as per National Tuberculosis Elimination Programme was assessed and compared with mutation profile.

RESULTS

The most frequent mutation observed among Gyr A drug resistance mutation was D94 G (Gyr A MUT3C, 50/123, 40%) corresponding to high level resistance to Levofloxacin and Moxifloxacin. Patients with Asp94Gly mutation was significantly associated with underweight body mass index. The same mutation was associated with poor treatment outcome as died or treatment failure.

CONCLUSION

This study observed that history of anti-tuberculosis therapy is a risk factor for FQ drug resistance mutations. This study also shows the importance of mutation profile analysis and role of specific drug resistance mutation in predicting the course of disease.

Evaluation of Hearing in High-Risk Neonates

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INTRODUCTION

As the first year of life is substantially critical in the development of brain, absence of auditory experience during this period significantly retards the child's overall development. Thus, there is a need for early identification of hearing loss through New-born Hearing Screening Programmes. The aim of the present study was to assess the hearing status of neonates admitted in Neonatal Intensive Care Unit using Brain Evoked Response Auditory (BERA) and factors associated with hearing impairment.

METHODS

The study was a hospital based prospective observational study conducted in high-risk neonates having one or more risk factors admitted to NICU of Department of Paediatrics, RNT Medical College, Udaipur. The examination was carried out by means of Otoacoustic Emissions (OAE) followed by BERA if found abnormal on both occasions.

RESULTS

At the end of two stage screening test, 2009 babies (88.1%) had normal hearing. 106 babies were subjected to BERA and 97 (4.5%) babies were diagnosed with hearing impairment. After doing multivariate logistic regression analysis, TORCH infection [odds ratio: 1.46 (95% CI: 1.25-1.98)] and ototoxic drugs [odds ratio: 1.35 (95% CI: 1.17-1.64)] were found to be associated with hearing impairment.

CONCLUSION

Since most of the hearing loss among high-risk neonates can be treated, a nationwide standardized hearing assessment program is advocated for the early detection of high-risk children with hearing loss.

Study of Factors Predicting the Outcome of Neonates on Continuous Positive Airway Pressure in Neonates Admitted in Tertiary Care Hospital, Jhalawar

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INTRODUCTION

Neonatal respiratory failure is a serious clinical problem associated with high morbidity, mortality and cost. Respiratory support in neonates may be given in the form of invasive or non invasive ventilation. The aim of this study was to evaluate study of factors predicting the outcome of neonates on continuous positive airway pressure in neonates admitted in tertiary care hospital.

METHODS

This prospective observational study was conducted on 177 neonates requiring CPAP as a part of the management, admitted to neonatal intensive care unit (NICU).

RESULTS

Among 177 neonates, female babies, birth weight in between 1.5–1.9 Kg, Babies whose mothers received antenatal steroids, Babies who received surfactant, Babies who required PEEP ≤ 6 on CPAP, Babies who required ≤ 40 FiO₂ on CPAP, early initiation of CPAP immediately after birth, Bubble CPAP and using mask as interface, had more successful outcome with significant p value.

CONCLUSION

Extremely low birth weight babies with antenatal risk factors, requiring high PEEP and Fio₂ on CPAP, form the most vulnerable group for CPAP failure. Timely administration of surfactant and CPAP along with early intervention for high risk neonates is mandatory for their successful outcome.

Clinical Study of Etiology and Management of Bladder Outlet Obstruction

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INTRODUCTION

The incidence of bladder outlet obstruction is different and varied in both age and gender. Hence, this study was conducted to assess the aetiology and management of bladder outlet obstruction in patients above 18 years of age in both sexes.

METHODS

In this prospective study, patients admitted with the complaint of bladder outlet obstruction evaluated under general physical examination, systemic examination, radiological investigations (X-Ray and USG KUB, RCUG/MCUG, CT/MRI), invasive investigations (cystourethroscopy).

RESULTS

Out of 50 patients maximum patients were male (49) and maximum incidence was observed in the age group of 60-70 years (17). On radiological investigations (X-Ray/USG KUB, RCUG/MCUG, CT/MRI), invasive investigation (cystourethroscopy and biopsy) maximum patients were associated with benign prostatic hyperplasia (20) followed up by stricture urethra (13), vesical calculus (7), carcinoma prostate (6) and least was carcinoma bladder (4). Out of 50 patients 16 patients underwent TURP, 4 underwent for medical management, 13 underwent DVIU, 6 underwent bilateral orchidectomy, 5 underwent cystolitholapaxy, 2 underwent cystolithotomy, 4 underwent TURBT.

CONCLUSION

Males were mostly affected from bladder outlet obstruction and most common age group was from 6th-7th decade of life. Benign prostatic hyperplasia was most common cause of bladder outlet obstruction in male and vesical calculus was most common in female and least common was carcinoma bladder. Maximum patients of benign prostatic hyperplasia underwent transurethral resection of prostate.

Clinical Profile, Electrolytes and Blood Gas Parameters of Children with DKA and its Association with Clinical Outcome

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INTRODUCTION

The aim of this study was to evaluate the clinical profile, blood gas and electrolyte up to 48 hours of admission, and its association with duration of insulin infusion, duration of hospital stay and mortality in children with diabetic ketoacidosis (DKA).

METHODS

This was a hospital based prospective study conducted in pediatric intensive care unit (PICU) of a tertiary care center. 60 consecutive children with DKA admitted to PICU were included in the study excluding children partially treated elsewhere. Serum electrolyte, renal function test, blood gas, blood glucose and urine ketone levels were estimated at the time of admission and then subsequently at 4, 12, 24, 38 and 48 hours.

RESULTS

The mean age of the study population was 8±3.9 year. There were 32 males (53%) which was slightly more than 28 females (47%). Most patients (34 cases; 57%) had pre-existing diabetes, whereas 26 (43%) cases were diagnosed at admission. Precipitating cause was unknown in a majority (48%) of patients. A major (42%) number of cases precipitated DKA due to infection, while 10% cases had insufficient insulin intake. Most children presented with acidotic breathing, anorexia, and polyuria. Duration of insulin infusion and hospital stay was more in patients with abnormal electrolytes at 24 hours. Mortality was high in patients with CNS manifestations and pH<7.0 at admission.

CONCLUSION

Pre-existing diabetics constituted more >50% of total DKA admissions. Nearly one-third presented with severe DKA, renal failure, cerebral edema and sepsis contributed to adverse outcomes.

A Prospective Study of Highly Sensitive C Reactive Protein (HsCRP) Level and Appendix Wall Thickness in Diagnosis of Acute Appendicitis

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INTRODUCTION

Appendix diameter has always been used in diagnosis of acute appendicitis. Negative appendicectomies constitute a major part of burden on health care system. This study aimed at using HsCRP level and appendix wall thickness as a standard investigation in diagnosis of acute appendicitis.

METHODS

A total of 100 patients having symptomatic acute appendicitis and admitted were included in the study. Their HsCRP levels and appendix wall thickness was measured and correlated. Data were analysed in terms of clinical features, blood tests- white blood cells, HsCRP levels and appendix wall thickness by USG preoperatively. Diagnosis confirmed with histopathology report suggestive of acute appendicitis.

RESULTS

In the study, HsCRP test sensitivity was 97.67% and specificity was 85.71% and diagnostic accuracy was 96%. Appendix wall thickness and HsCRP both test sensitivity was 81.40%, specificity was 42.86% and diagnostic accuracy was 76%.

CONCLUSION

A surgeon's clinical diagnosis using time tested clinical signs is effective in diagnosing acute appendicitis. Both HsCRP and appendix wall thickness were useful test to detect acute appendicitis. Similarly a normal preoperative HsCRP level in patients with suspected acute appendicitis is most likely associated with a normal appendix on histopathological examination. Normal HsCRP level after 12 hours of onset of symptoms should be used for a basis to defer surgery to reduce the rate of negative appendicectomies.

A Study to Evaluate Impact of Patent Ductus Arteriosus Device Closure on Left Ventricular Ejection Fraction in Children

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INTRODUCTION

A patent ductus arteriosus (PDA) occurs when the DA fails to completely close postnatally. Most effective and safe method of treating PDA is percutaneous device closure. The purpose of this study was to investigate changes in LV function after percutaneous transcatheter PDA closure using conventional echo. In addition, pre-closure factors associated with immediate LV dysfunction after the procedure and 3 months post procedure.

METHODS

All children with isolated PDA with audible murmur weighing >6 kg, age >6 months were included. In Pre procedural 2-D echo parameters noted were-LVEF via M-Mode/Simpsons method [ejection fraction(EF)/LV internal diameter in systole (LVID-S)/LV internal diameter in diastole(LVID-D)], grading of AR, MR, PDA size.

RESULTS

Out of 25 children 56% were females and 44% were males. The mean age was 3.136 years. The mean PDA size was 3.892 mm. Mean pre procedure LVEF by M mode was 60.19% and just after procedure was 50.98% which was significantly decreased. Post procedure, after 3 months LVEF was 57.16% which was similar to pre procedure.

CONCLUSION

Percutaneous PDA device closure may result in decrease in LVEF or left ventricular dysfunction just after closure which usually returns back to pre-procedural levels after 3 months.

Assessment of Vitamin-B12 Deficiency in Less than Six Months Infants with Severe Acute Malnutrition

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INTRODUCTION

Vitamin B12 deficiency leads to megaloblastic anemia, poor growth and increased infections, irreversible neurological damage to developing brain. The aim of this study was to evaluate prevalence of vitamin B12 deficiency and clinical profile of infants admitted with severe acute malnutrition.

METHODS

It was a hospital-based prospective observational study conducted on a total of 100 infants of age <6 months with severe acute malnutrition were included in the study. Vitamin B12 level was done on day 1 of admission along with all routine investigation before starting treatment.

RESULTS

We divided 100 infants according to their age group, majority of infants (41%) were in the age group of 5 to 6 month of age. Prevalence of SAM increase as the infants grown with the age. Maximum number of patients presented with loose stool and vomiting (40%), apathy (37%), fever (35%), cough and cold (25%), refusal to feed (22%), involuntary movements (10%), not gaining weight (10%), swelling (7%), abdominal distension (4%) and convulsion (3%). According to level of vitamin B12, in this study 48% infants found to be low (<200pg/ml) vitamin B12 deficiency, 25% infants came into borderline (200-300 pg/ml) vitamin B12, and 27% had >300 pg/ml. Prevalence of vitamin B12 in 1 to 6 month of age group with SAM was 73%. Infants (29) had tremor out of them 25 patients found to be low vitamin B12 deficiency.

CONCLUSION

Vitamin B12 deficiency is occurring as early as before 6 months especially in those infants whose mothers are undernourished.

To Study the Role of Freeze-Dried Amniotic Membrane in Management of Persistent Corneal Epithelial Defect in Moderate-to-Severe Dry Eye Disease

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INTRODUCTION

The present study aimed to report the outcome of freeze-dried amniotic membrane for persistent epithelial defects (PED) in moderate to severe cases of dry eye disease.

METHODS

This was a retrospective-prospective observational study that included consecutive patients of dry eye disease with persistent epithelial defects treated with freeze dried amniotic membrane and bandage contact lens. Patients with an epithelial defect that did not respond to conventional treatment were included while patients who failed to follow-up were excluded.

RESULTS

Thirty eyes of 30 patients with mean age of 38.8 years (21-58 years) were included in this study. The main etiology of PED was superficial punctate keratitis (n=7/30), followed by chemical burns (n=4/30), limbal stem cell deficiency (n=4/30), and neurotrophic keratitis (n=3/30). Remaining cases were exposure keratitis, vernal keratitis, filamentary keratitis, GVHD, simple herpetic keratitis (n=2/30 each), Sjogren's syndrome (n=1/30), and herpes zoster keratitis (n=1/30). Time from PED presentation to amnion treatment was 39.1 days (range 16-90 days). The amnion was absorbed within 2 weeks in 100% of the cases. Following insertion of the amnion, resolution of the PED was achieved in 26/30 eyes (86.6%) without the need for additional interventions within 20.7 days (range 7-35 days) with no complications recorded.

CONCLUSION

Dried amniotic membranes achieved resolution of PEDs secondary to various etiologies of dry eye disease in 86.6% of eyes with a significant improvement in vision.

Comparative Study of Visual Outcomes and Complications after Primary and Secondary Retropupillary Iris Claw Lens Implantation in Absence of Adequate Posterior Capsule at Tertiary Care Hospital in Rajasthan

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INTRODUCTION

Primary iris claw implantation means that IC-IOL implanted in the same sitting after cataract removal while secondary IC-IOL implantation is done in aphakic eyes without capsular support. This study evaluated visual outcomes and complications of primary and secondary retropupillary IC-IOL.

METHODS

This prospective study was conducted among 30 eyes of 30 patients in each group who attended OPD/IPD at Government Medical College and Hospital, Ajmer.

RESULTS

One (3.3%) and 26 (86.7) patients had 6/12 to 6/6 visual acuity from primary and secondary cases. Six (20%) patients had BCVA between 3/60 to 6/60 in primary cases. In primary and secondary cases, 23 (76.7%) and 4 (13.3%) patients had BCVA between 6/36 to 6/18. Overall data conferred statistical significance with p-value 0.001(S). High refractive surprise was found in 6 (20%) and 8 (26.67%) patients in the primary and secondary group. Ovalisation of pupils was found in 6 (20%) and 1(3.33%) patients in the primary and secondary group. Raised IOP was noticed in 4 (13.33%) and 2 (6.67%) patients from the primary and secondary group. Optic capture found in 3 (10%) and 2 (6.67%) patients from the primary and secondary group. Displaced IOL with raised IOP, iridodialysis and bullous keratopathy was found in 3(10%) patients from the primary group.

CONCLUSION

Secondary cases showed better visual outcome and lesser complications compared with primary cases after retropupillary iris claw lens implantation.

A Prospective Study to Evaluate the Clinical and Functional Outcome of Transforaminal Lumbar Interbody Fusion in Low-Grade Spondylolisthesis

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INTRODUCTION

Spondylolisthesis is a common cause of spinal instability and is defined as the translation of one vertebra relative to another. The aim of this study was to bring forth local data on a series of patients undergoing TLIF at a tertiary care centre, its clinical and functional outcome, and observe any complications.

METHODS

This prospective observational study was conducted on 35 individuals having single level low-grade isthmic and degenerative spondylolisthesis with radicular symptoms and/or backache in the age group 18 to 60 years (both inclusive) with ineffective conservative treatment for not less than 6 weeks were included in the study. Demographics, presenting symptoms, and affected spinal level were noted. All subjects went through a thorough clinical and functional assessment. Surgical data analysis included operative time, blood loss, technique, intraoperative complications, and instrumentation used.

RESULTS

Most (51%) study subjects were in the 41-50 year age group and the mean age was 44.02 years. 48% study subjects had OT time of 2 hours and the mean OT time was 2.2 hours. 71% study subjects had ≤ 300 ml blood loss and the mean blood loss was 300 ml. The improvement in ODI and VAS was statistically significant and most (91%) study subjects had satisfactory outcome.

CONCLUSION

Based on the available evidence, transforaminal lumbar inter body fusion appears to be a more efficacious and safe technique with reduced tissue trauma, quicker postoperative recovery, and better long-term functional outcome for the treatment of low-grade spondylolisthesis.

Prevalence of Keratoconus and Subclinical Keratoconus in Subjects with Two or More Diopters (d) of Astigmatism Using Pentacam derived Parameters

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INTRODUCTION

Keratoconus is the most common progressive asymmetric, bilateral, corneal ectatic disorder that arises due to bio-mechanical and structural defects in corneal collagen organization. It is characterized by axial protrusion of cornea and stromal thinning which deforms the shape of cornea leading to myopia, irregular astigmatism with decreased vision.

METHODS

A total of 167 patients who attended the Out Patient Department of a tertiary care hospital with signs and symptoms of keratoconus or with astigmatism of two diopters (2D) or greater within an age group of 8-45 years were included in the study.

RESULTS

Mean age of patients was 19.6 ± 9.09 years ranging from 8-45 years. 50.3% of study subjects were females and 49.7% were males. Total 334 eyes were examined among 167 patients. Out of these, ≥ 2 D astigmatism was observed among 152/167 (91.02%) right and 139/167 (83.23%) left eyes. Overall, in both eyes, the prevalence of astigmatism was found to be 73.88%, that of subclinical keratoconus (FFKCN) was found to be 10.31% and keratoconus (KCN) was found 15.81% among the study population having ≥ 2 D astigmatism.

CONCLUSION

Diagnosis of KCN is becoming increasingly important, as several techniques, such as cross-linking, are being developed to slow the evolution of this ectatic disease. Early diagnosis of subclinical cases can help prevent loss of vision by halting the progression at an early stage.

To Study the Accuracy and Perforation Rate of Free Hand Pedicle Screw in Thoracic Spine

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INTRODUCTION

Pedicle screws are being commonly used in posterior spinal surgeries. The purpose of this study was to delineate the "Free-Hand" thoracic pedicle screw placement with respect to the pertinent anatomy, placement technique, confirmation of the accurate screw placement, salvage, reported complications, and several methods to help avoid complications like increased operation time and radiation exposure.

METHODS

This prospective, observational and non-randomised control study was done with 23 patients who met criteria. After PAC check-up, all patients were planned for surgery. Pedicle screw placement were done in thoracic spine using 'free hand technique of KIM et al. All patients were followed up for accuracy and perforation of pedicle screw by post-op CT scan using Gertzbein and Robbins classification scores.

RESULTS

Mean age of patients was 41.17 years (range, 23-64 years) at the time of surgical treatment. Preoperative clinical symptoms were mid axial back pain in 14 patients, radiculopathy in 9 patients, and low extremity weakness in 8 patients. Over a period of 12 months, a total of 193 consecutive pedicle screws were inserted in the thoracic spine by the index surgeon using a free-hand technique. Sixteen screws were breeched out of 193 screws.

CONCLUSION

CT scan shows that spine surgeons can perform PSI with an acceptable breach rate using the free-hand technique which reduces surgical time and radiological exposure. If a spine surgeon has been trained under the supervision of an experienced surgeon and uses repetitive confirmatory steps, even a young surgeon can safely place free-hand pedicle screws.

A Prospective Study of Topical Phenytoin versus Conventional Dressing in Diabetic Ulcer in Western Rajasthan

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INTRODUCTION

Gingival hyperplasia is a typical adverse effect of Phenytoin (diphenylhydantoin) treatment for epilepsy. By virtue of its inherent antibacterial activity and indirectly through their effects on anti-inflammatory cells and neovascularization, Phenytoin may be used to stimulate the healing of wounds. The aim of this study was to compare granulation tissue formation by topical agents (phenytoin and povidone).

METHODS

A total of 100 patients with diabetic foot ulcer admitted in General Surgery at Dr SN Medical College, Jodhpur (Rajasthan) were randomly assigned into two groups, the study group consisting of 50 patients who were treated with Phenytoin dressing and 50 patients into control group who were treated with povidone dressing, assessment of granulation tissue formation done at the end of 14th day.

RESULTS

The rate of granulation tissue in phenytoin group was 90.84% as compared to control group which was 80.08% and it was statistically significant. Wound swab cultures repeated on day 14th revealed that there was 86% negative culture in phenytoin group when compared to control group of 68% which also was statistically significant. The mean hospital stay for the patient in phenytoin group was 26.46 days and in control group, it was 31.22 days. Graft uptake in the study group was 93.28% and in the control group was 83.81%.

CONCLUSION

Phenytoin dressing effectively accelerates the development of granulation tissue while also decreases bacterial load as compared to conventional dressing. Phenytoin helps to improve overall results by preparing the foot ulcer for early grafting.

Study of Clinico-etiological Profile of Lower Respiratory Tract Infections

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INTRODUCTION

Acute respiratory infections (ARI) of those under 5 years constitute a major health problem all over the world, especially in developing countries. ARI is classified according to the principal sites of infection as URTI and LRTI. CBC, CRP, ESR, and Blood Culture can be useful markers for the etiology of LRTI. The aim of this study was to describe the clinical characteristics of LRTI among children and study the etiological profile of LRTI among children.

METHODS

This is a cross-sectional observational study done for one year on 66 children under 5 years of age admitted with pneumonia. The results were represented in the form of frequencies and proportions.

RESULTS

Maximum cases were in the age group of two months to 1 year. In LRTI fever, cough, and shortness of breath were common clinical characteristics. 96.97% of cases were viral and 3.03% of cases were bacterial. Bacterial cases were more associated with severe pneumonia. Mortality was more among bacterial cases.

CONCLUSION

LRTI is more common among those two months to 1 year. Fever, cough and shortness of breath had seen in most of subject Viral etiology more common in pneumonia and bacterial etiology in severe pneumonia.

Effect of Aminoven Supplementation in Prevention of Development of Edema and Hypoproteinemia (Hypoalbuminemia) in Preterms

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INTRODUCTION

Preterm birth is defined by WHO as all births before 37 completed weeks of gestation. Early postnatal provision of IV amino acids to preterm infants produces greater rates of protein synthesis and net protein balance. The aim of this study was to evaluate the effect of IV aminoven infusion on protein synthesis especially albumin and prevention of edema development.

METHODS

This prospective study was conducted on preterm newborns. In study group, 50 neonates of 30 to <37 weeks GA were started Aminoven infusion on 1 day of life. In control group, 50 preterm neonates of 30 to <37 weeks GA were not given Aminoven infusion. Amino acid in dose of 1.5 g/kg/day infusion was given to study group for five days. Total protein and albumin level was estimated on first, third and seventh day of life. Edema was assessed daily.

RESULTS

Total protein mean level was significantly high in study group on day 3 and day 7. Total serum albumin mean level was significantly high in study group on day 7. Similarly, control group neonates developed edema on day 3 and day 7 significantly higher than neonates in study group. The neonates fed mother milk from day 2 onwards did not develop edema in control group

CONCLUSION

Amino acid infusion in early postnatal life led to significant elevation in total protein and albumin level in preterm neonates. It also reduced the development of edema.

An Observational Study to Determine the Impact of Adenotonsillectomy on Quality of Life in Children with Symptomatic Adeno-tonsillar Hypertrophy Based on OSA-18 Score

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INTRODUCTION

Obstructive Sleep Apnea-18 (OSA-18) is a validated questionnaire used to assess the difference in the quality of life, in children with symptomatic adenotonsillar hypertrophy, before and after adenotonsillectomy.

METHODS

It is an observational mixed-design study conducted in the department of ENT, Dr SN Medical College, among 50 patients in the paediatric age group (4-15 years) who were suffering from adenotonsillar hypertrophy and were admitted in August 2021-August 2022 with an indication of adenotonsillectomy based on American Academy of Otolaryngology-Head and Neck Surgery criteria. Their quality of life based on the OSA -18 score, was compared before and after surgery. The minimum period for follow-up of the patient was 3 months post-surgery.

RESULTS

The mean age was 8.9 years. The mean total OSA-18 score preoperatively was 65.9±15.7 and postoperatively was 21.3±3.8. The mean difference showed a significant reduction in preoperative and postoperative scores. Preoperatively 17/50 (34%) patients had a score <60, showing a mild impact on quality of life. 25/50 (50%) of the patients had a grand total score of 60-80 (showing a moderate impact on quality of life) and 8/50 (16%) patients had a score > 80 (showing a severe impact on quality of life). After adenotonsillectomy these numbers reduced and all the patients (100%) in the study had scores below 60.

CONCLUSION

Adenotonsillectomy not only eliminates the symptoms but improves the quality of life of both children and caregivers. Hence, adenotonsillectomy is considered an effective treatment for patients with symptomatic adenotonsillar hypertrophy.

Evaluation of Serum Electrolyte Changes in Neonates with Neonatal Hyperbilirubinemia Receiving Phototherapy with Special Reference to Hypocalcemia in a Tertiary Care Hospital in Jhalawar

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INTRODUCTION

Jaundice is the most prevalent condition in new-borns during the first two weeks after birth. Photo-therapy is considered the first line of management in unconjugated jaundice. A lesser-known side effect, but potential complication of phototherapy is electrolyte imbalance. The aim of the study was to evaluate of serum electrolyte changes in neonates with neonatal hyper-bilirubinemia receiving phototherapy with special reference to hypocalcaemia.

METHODS

This study was carried out for 171 jaundiced neonates receiving phototherapy. Laboratory tests including total serum bilirubin, serum calcium level and serum electrolytes by fully automated Beckman Coulter AU 680 were performed before and after phototherapy.

RESULTS

Total bilirubin, sodium and calcium changes was found to be statistically significant following phototherapy. Potassium and chloride changes was found to be non-significant following phototherapy. Hyponatremia was 15.0% when duration of phototherapy was >48 hours as compared to duration <48 hours (3.6%). Hypocalcaemia was 38.3% when duration of phototherapy was >48 hours as compared to duration <48 hours (22.5%). The incidence of chloride and potassium imbalances was found to be non-significant with duration of phototherapy.

CONCLUSION

The use of neonatal phototherapy must be prudent and limited to neonates who truly require it, while adhering to prescribed limits and always considering the risks and advantages of the treatment for neonates.

Intra-Abdominal Hypertension and Increased Serum Procalcitonin Levels are Important Prognostic Markers in Critically Ill Surgical Patient's Outcome: A Prospective Observational Study

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INTRODUCTION

Serum Procalcitonin is a reliable biomarker for infection, inflammation, early detection of sepsis and mortality. This study aimed to estimate influence of intra-abdominal hypertension (IAH) and increased serum pro-calcitonin on clinical course and outcome of critically ill surgical patients.

METHODS

This was a prospective observational study conducted on 100 patients admitted to ICU and casualty ward. Patients who were admitted for blood and ascites in the peritoneal cavity, bowel distension and edema, high volume resuscitation and massive transfusion, damage control surgery in traumatic patients, excessive tension after abdominal closure, postoperative ileus, circumferential abdominal eschar in burn patients, and hemodilution with severe sepsis were enrolled within 24 hours of admission. IAP measured for patients at 0, 6, 12, 24 and 48 hours. Serum Procalcitonin measured on 2nd day of admission.

RESULTS

Mean age of study population was 52.29 ± 16.28 years. 79% subjects developed IAH. 21% developed acute renal failure, 44.3% patients in IAH group developed complications, 9% suffered mortality. Serum procalcitonin values were significantly higher in IAH group and non-survivors i.e. 4.47 ± 7.49 and 14.98 ± 14.61 ng/ml, respectively.

CONCLUSION

IAH and raised procalcitonin can be use to predict morbidity, mortality in critically ill surgical patients. Thus, monitoring can lead to early diagnosis and prevention of untowards outcomes.

A Comparative Study of Dosimetric Parameters of IMRT and RAPID ARC VMAT in Head and Neck Cancer

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INTRODUCTION

VMAT is capable of producing conformal dose distribution in a short period of time compared to conventional intensity modulated radiation therapy (IMRT). This study is about comparison of dosimetric parameters of IMRT VS RAPID ARC VMAT planning in head and neck cancer patients. The aim of the study is to compare dosimetric parameters with regard to PTV coverage, homogeneity index, conformity index and Dose to OARs between two radiotherapy techniques namely IMRT and RAPID ARC/VMAT in head and neck cancers patients.

METHODS

In this study, 50 biopsy proven patients of head and neck cancer were included. Radiotherapy planning was done both on IMRT and VMAT technique though treated with either of the one.

RESULTS

The PTV coverage in terms of D98%, D50% and D2% was similar in both IMRT and VMAT plans. The difference was statistically insignificant. However, VMAT plans were more conformal and more homogeneous as compared to IMRT plans. The similar result was obtained with stage-wise subset analysis. OAR sparing was also better with VMAT as compared to IMRT plans. There was a significant reduction in mean dose to parotid glands in VMAT plan. Point max dose to Brainstem and VCN were also significantly less (p value 0.0311) in VMAT plan. Dose to spinal cord was similar in both plans. The conformity index was 1.037 and 1.067 for VMAT and IMRT plans respectively. The difference was statistically significant.

CONCLUSION

More conformal and homogeneous dose is delivered via VMAT along with better OAR sparing like parotid gland, brainstem, vestibulocochlear nerve.

Serum Bilirubin at 24 Hours of Live Birth as a Predictor of Significant Hyperbilirubinemia in Preterm Neonates

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INTRODUCTION

As hyperbilirubinemia is one of the key contributors to brain damage and is crucial to identify those instances that are at risk as it is more prevalent and severe among the preterms. The objective of this study was to assess serum bilirubin at 24 hours of live birth as a predictor of significant hyperbilirubinemia in preterm neonates.

METHODS

It was a prospective observational study conducted on 150 preterms born within 33 to 36 weeks 6 days were included after considering the exclusion criteria in the study. Area under the ROC curve was used to identify significant hyperbilirubinemia within one week of life, along with it the cut-off value of total serum bilirubin (TSB) at 24 hours of life was calculated.

RESULTS

A total of 150 enrolled preterm newborns were followed up. The TSB at 24 hours of life was proved to be significant by using ROC curve, where area under curve is 0.96 which was statistically significant. Among 150 preterms, 70 newborns with TSB >4.2 mg/dl developed jaundice and required phototherapy in 65 babies (98.48%). Hence, preterms with TSB >4.2 mg/dl have a significant risk of developing hyperbilirubinemia.

CONCLUSION

TSB for preterms at 24 hours of life can successfully predict significant hyperbilirubinemia. Preterms with cut-off value of bilirubin level >4.2 mg/dl are more prone to develop significant hyperbilirubinemia requiring appropriate intervention at the earliest.

Comparative Evaluation of Octa Shot Versus Quad Shot Palliative Radiotherapy for Advanced Head and Neck Cancer Patients

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INTRODUCTION

Majority of head and neck squamous cell cancer patients in India are present in advanced stages. They are not candidates for multimodality treatment due to loco-regionally advanced disease, poor performance status. Hypo-fractionated regimens have been used for palliation of advanced head and neck cancers. The aim of this study is to compare the acute and late toxicity and overall response of octa shot and quad shot radiation therapy as palliative regime in advanced head and neck cancers.

METHODS

A hospital based prospective, randomized study was conducted with 50 patients of advanced squamous cell carcinoma of head and neck, out of which 25 patients taken in each arm. Two fractions (3.5Gy) per day 6 hours apart was given in four consecutive days (Octa shot). Two fractions per day 6 hours apart was given in 2 consecutive days repeated for one more cycle with a interval of 2 weeks (Quad shot). Acute toxicities monitored at day 15 and 30 and late at day 90 and 180.

RESULTS

Octa shot had slightly better loco-regional control but the difference was statistically insignificant. Octa shot had more grade 2 skin and mucosal reaction than Quad shot. Symptomatic relief subjective regression and improved QOL were better in Octa shot than Quad shot.

CONCLUSION

The study concludes that “octa shot” is an effective palliative radiotherapy regime with greater yet manageable toxicity in comparison to Quad shot regimen. This regime not only strikes a balance between the economic burden, treatment time, and machine load but also helps in selecting patients for further dose escalation based on treatment response and symptomatic relief.

To Study the Etio-clinico-radiological Evaluation of Bronchiectasis Patients, Admitted at Tertiary Care Center, TB and Chest Hospital, Badi, RNT Medical College, Udaipur, Rajasthan

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INTRODUCTION

Bronchiectasis is a condition in which an area of the bronchial lumen is permanently and abnormally widened, with accompanying infection and is caused by long-term excessive inflammatory damage to the airways. The aim of this study was to see etio-clinico-radiological evaluation of bronchiectasis.

METHODS

Across sectional observational study was conducted over 67 confirmed patients of bronchiectasis admitted at Chest and TB hospital, Badi, after the approval of ethical committee clearance. Detailed examination and relevant investigations of bronchiectasis patients were done.

RESULTS

Among 67 patients of bronchiectasis 52 (77.61%) were male and 15 (22.39%) were female. COPD (47.36%) was the most common associated lung disease. Almost all patients had cough and expectoration as presenting chest symptoms. Most of the patients had bilateral (61.19%) bronchiectasis with upper zone (73.13%) prevalent. Common organism detected in the sputum of study population was *M. Tuberculosis* followed by pseudomonas. Maximum number of the patients had obstructive pattern in spirometry. In this study the most common etiology for bronchiectasis was the post-tuberculosis infection.

CONCLUSION

Prompt diagnosis and early initiation of anti tuberculosis drugs should be started as early as possible to prevent this catastrophic condition to prevent chronic morbidity.

Correlation between Six Minute Walk Test and Spirometric Parameters Among Silicosis Patients

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INTRODUCTION

The degree of respiratory functional involvement is a fundamental determinant for evaluating incapacity for work and for monitoring the progress of severity in patients with silicosis. The objectives of the study was to determine the correlation between 6 minute walk test and spirometric parameters (FEV1, FVC, FEV1/FVC ratio) and also determine the factors associated with pulmonary function and exercise capacity in silicosis patients.

METHODS

This was a cross sectional study. Patients of either gender aged 18 years or more and diagnosed as silicosis as per ILO classification were included in the study. Evaluation included detailed history and clinical examination, CXR, spirometry, exercise performance assessment (6MWT).

RESULTS

Out of 120 patients, spirometry show restrictive pattern in 66 patients, obstructive pattern in 32 patients, mixed pattern in 13 patients and was normal in 9 patients. The mean percentage predicted 6 MWD was $48.07 \pm 21.18\%$ and mean percentage desaturation was $3.28 \pm 3.26\%$. Percentage predicted 6 MWD had statistically significant positive correlation with FVC, FEV1, FEV1/FVC ratio. Desaturation in 6 MWT had significant negative correlation with FVC, FEV1, FEV1/FVC ratio.

CONCLUSION

Significant correlation was found between 6 MWT and spirometry variables (FEV1, FVC, and FEV1/FVC). Duration of exposure, daily hours of working, type of occupation are the factors affecting the pulmonary function and 6 MWT in silicosis patients. Both 6 MWT and spirometry help in early disease identification and hence allow for prevention of exposure, slow the disease progression and alter the final course of illness.

Evaluation of Volume of Gastric Contents by Non-Invasive Gastric Ultrasonography After Preoperative Oral Carbohydrate Drink in Lower Limb Orthopaedics Surgery: A Randomised Controlled Trial

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INTRODUCTION

Pulmonary aspiration of gastric contents is a serious complication of anaesthesia. The aim of this study was to determine and compare the gastric volume and contents using ultrasonography in patients, after overnight fasting and after overnight fasting but given 400 ml carbohydrate drink before 2 hours of surgery.

METHODS

A prospective randomized control trial on 72 patients of either sex aged 18-60 years of ASA I-2 posted for elective orthopaedics lower limb surgery under spinal anaesthesia. Patient's refusal, patients with known case of GERD, pregnant patients, and gastro-intestinal tract emergencies were excluded from the study. Patients were randomly divided in two groups. Group A patients who were overnight fasting; group B patients with 400 ml carbohydrate drink 2 hours before surgery.

RESULTS

There was no considerable difference between all the gastric parameters of both the groups. Patients in group B have gastric volume ($30.69 \pm 17.38 \text{ cm}^3$) comparable to group A ($30.25 \pm 15.68 \text{ cm}^3$) with p value of 0.111. On four points Likerts scale, the patients in group B were more satisfied than group A (p value < 0.0001). The mean VAS for hunger in group A was 6.83 ± 0.85 and group B was 4.44 ± 0.69 (p value < 0.0001). There were no variation in mean heart rate, systolic blood pressure, diastolic blood pressure, mean blood pressure, respiratory rate, SPO2 between both the groups.

CONCLUSION

The patients were more satisfied and the quality of recovery was better in patients who were given carbohydrate drinks as compared to those patients who followed strict overnight fasting.

A Prospective Observational Study to Evaluate Prevalence and Associated Risk Factors with Isolation of Multidrug Resistant Pathogens in Chronic Suppurative Lung Disease Patients Attending at Tertiary Care Centre

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INTRODUCTION

Chronic suppurative lung disease (CSLD) consists of bronchiectasis, lung abscess, and necrotizing pneumonia. MDR pathogen defines as resistant to more than three classes of antibiotic.

METHODS

A total of 52 subjects were enrolled and detailed history with clinical respiratory systemic, radiological and pathological examinations including sputum examination were performed. Sputum pyogenic culture sensitivity and CBNAAT for MTB was also advised. All reports were collected and analyzed.

RESULTS

Out of 43 bronchiectasis patients, 37 (86.05%) were drug resistant and out of them 10 (27.03%) patients were MDR. For *Pseudomonas aeruginosa* and *Klebsiella* independent risk factor were previous use of antibiotic within 90 days and history of hospitalization within 90 days, COPD, diabetic mellitus and immuno suppression. Out of 9 lung abscess patients 8 (88.89%) were drug resistant and out of them 2 (25%) patients were multidrug resistant pathogen. Independent risk factors were history of hospitalization within 90 days and use of antimicrobial drug within 90 days.

CONCLUSION

Pseudomonas aeruginosa and *Klebsiella* was frequent organism isolated from sputum of patients with SLD. Both were resistant to β -lactam and while treating SLD, physician should keep drug resistant pattern and common risk factors in mind and should start empirical treatment which should not include β -lactam and fluoroquinolone.

Comparison of Microcuffed Vs Uncuffed Endotracheal Tubes for Airway Management in Neonates During General Anaesthesia: A Randomized Comparative Trial

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INTRODUCTION

More recently, newer designed high volume low pressure (HVLP) microcuffed endotracheal tube (ETTs) are increasingly being used in the young pediatric population with very limited evidence. This study was designed to compare the micro cuffed ETTs with the uncuffed ETTs in neonates undergoing general anesthesia.

METHODS

Total 50 neonates belonging to ASA class I and II, who were undergoing elective surgery under general anesthesia between ages 0-28 days old, weight ≥ 2.5 kg, gestation age >37 wks were randomly allocated into either the microcuffed group (Group MC) or the uncuffed group (Group UC). Leakage around tracheal tube, inspiratory and expiratory tidal volumes on VCV and PCV modes of mechanical ventilation, perioperative manipulations required, hemodynamic parameters, and postoperative complications between both groups was assessed.

RESULTS

During VCV, leakage was significantly less in MC group compared to UC group; in ml/kg, median [IQR (range)] 0.31 [0.225-0.4 (0.07-0.89)] v/s 1.56 (1.35-1.89) (1.03-2.52)], respectively, p value <0.001 . On PCV, the median [IQR (range)] leakage was 0.31 [0.28-0.51 (0.15-1.20)] ml/kg vs 1.85 [1.26-2.11 (0.96-3.78)] ml/kg in MC and UC group respectively, p value <0.001 . Both inspiratory and expiratory tidal volumes were higher in the MC group compared to the UC group. Other parameters like number of attempts of ETT insertion, perioperative manipulations, and hemodynamic parameters were comparable between both the groups.

CONCLUSION

The use of micro cuffed ETTs may be advantageous and safe to use for providing artificial ventilation in neonates undergoing general anesthesia.

A Prospective Study of Immuno-histochemical Markers Expressed by the Keratinocytes Infected with Molluscum Contagiosum Virus Before and After Treatment by Auto-inoculation and Their Role in Regression of Dormant Lesion

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INTRODUCTION

Molluscum contagiosum is a common self-limiting benign viral infection affecting the skin and mucosa caused by a DNA poxvirus *Molluscum contagiosum virus (MCV)*. This study aims to trace expression of various immunomarker by *MCV* lesions leading to immune-mediate antiviral response to cutaneous poxviruses following autoinoculation.

METHODS

After autoinoculation, skin punch biopsy was taken at day 0, 7 and 28. Following it the immunohistochemistry was done by manual method. Inflammatory response by IHC was evaluated at day 0, day 7 and day 28 as percentage of cells positive for a particular marker.

RESULTS

Out of 40 patients having molluscum contagiosum, 23 patients showed excellent response, 9 patients showed very good response and 3 patients showed good response and 5 patients showed poor response at the end of study. The most significant increase was seen in CD56, CD1a and CD 45 RB with mean of 61.05 ± 13.27 , 45.63 ± 6.98 and 45.15 ± 4.623 , respectively.

CONCLUSION

The study provides evidence for the role of immunomodulation caused by auto inoculation. It provides compelling evidence of the role of autoinoculation in the management of molluscum contagiosum.

A Study of Pre-emptive Analgesia Caused by Oral Gabapentin and Oral Clonidine Under Spinal Anaesthesia for Lower Limb and Abdomino-Pelvic Surgeries

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INTRODUCTION

The present study aimed to compare the post-operative analgesic efficacy, preoperative sedation, and perioperative anxiety reduction by oral Gabapentin and oral Clonidine in abdominopelvic and lower limb surgeries done under spinal anesthesia.

METHODS

It was a prospective randomized comparative study. Sixty patients of ASA physical status I and II and both sexes (each group 30 patients) were randomly selected. Group G patients received 300 mg Gabapentin orally and Group C patients received 100 microgram Clonidine orally 120 minutes before surgery. Preoperative sedation, post operative analgesia, perioperative anxiety, and adverse effects were compared in both the groups.

RESULTS

Group G showed better VAS readings for pain assessment of 2.33 ± 0.92 in comparison to 5.7 ± 1.29 of group C ($p < 0.001$) at the 6th hour postoperatively. Rescue analgesia was more with group C. At 120th minute, group G showed Ramsay sedation score of 3.2 ± 0.88 compared to group C score of 1.53 ± 0.68 . Hospital anxiety and depression scale (HADS) was significantly lower in group G patients just before surgery and upto 24 hours postoperatively. Side effects like nausea and vomiting were more with group G but dizziness was more with patients receiving Gabapentin than Clonidine.

CONCLUSION

The study shows that Gabapentin is a better adjuvant for providing preemptive analgesia. Also it can be preferred as a premedicant for providing preoperative sedation and less incidence of perioperative anxiety and other side effects.