

ABSTRACTS

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Labor analgesia: Tramadol vs. pentazocine

Aisha Syed Wali, Shehnaz Ajaz, Syed Iqbal Azam, Shabina Ariff

Objective: To compare the efficacy and safety of intramuscular Tramadol and Pentazocine during labor, in our women.

Design: Double blind randomized trial.

Methods: 231 women, 114 in Tramadol group and 117 in Pentazocine group, were included in the analysis, with term singleton pregnancy cephalic presentation that were in active phase of labor and had a baseline VAS score of more than 7. Tramadol 100 mg and Pentazocine 30 mg intramuscular were given to assigned subjects. Pain was assessed at 30 and 60 minutes of drug administration on VAS score (0 – 10) and maternal satisfaction on Likert's scale (1 – 5) two hours after delivery. Maternal vital signs, nausea, vomiting, sedation, duration of labor, mode of delivery, APGARs at 1 and 5 minutes, NICU admission and need for Naloxone were recorded.

Results: The mean VAS score declined significantly in both the groups after analgesia (p-value<0.001), but no significant difference was observed between the two groups (p-value=0.839). Overall maternal satisfaction recorded at 2 hours of delivery, showed marginally significant difference in both the groups, with more women satisfied in Pentazocine group (p-value=0.05). No significant difference was observed for maternal and neonatal outcomes. Sedation was found to be significantly more in Pentazocine group (p-value<0.001).

Conclusion: Tramadol and Pentazocine were found to be safe and equally effective for labor analgesia with comparable maternal and neonatal outcomes. So, either drug can be used for analgesia and labor.

Key Words: Labor Analgesia, opioids in labor, Tramadol, Pentazocine.

Comparison of efficacy of ondansetron and dexamethasone combination and ondansetron alone in preventing postoperative nausea and vomiting after laparoscopic cholecystectomy

Khalid Ahsan, Sabahat Tariq

Introduction: Laparoscopic surgery provides tremendous benefits to patients including faster recovery, shorter hospital stay and prompt return to normal activities. Despite the minimally invasive nature of laparoscopy, high incidence of postoperative nausea and vomiting (PONV) remains a major cause of morbidity. The combination of antiemetic drugs could be a solution to prevent severe PONV. This study was carried out to compare the efficacy of ondansetron & dexamethasone combination and ondansetron alone in prevention of postoperative nausea and vomiting in patients undergoing laparoscopic cholecystectomy.

Objective: Compare the efficacy of ondansetron alone and

combination of ondansetron and dexamethasone in preventing postoperative nausea and vomiting in patients undergoing laparoscopic cholecystectomy

Methodology: After informed consent hundred ASA I and II patients, 50 in each group undergoing laparoscopic cholecystectomy were included in this randomized control study. Group A received ondansetron alone and Group B received combination of ondansetron and dexamethasone were randomized by opaque envelope method. Group A received ondansetron 4mg while Group B received ondansetron 4mg with dexamethasone 8mg 1 minute before induction. Postoperatively patients were observed for six hours for any episode of nausea or vomiting, or whether the patients required any rescue antiemetic.

Results: Patients who received ondansetron alone showed 28% incidence of PONV while those who received ondansetron and dexamethasone combination showed 12% incidence of PONV. This difference was statistically significant (P < 0.046).

Conclusion: Combination of ondansetron and dexamethasone was more efficacious as compared to ondansetron alone in prevention of Postoperative Nausea and Vomiting in patients undergoing laparoscopic cholecystectomy.

Key words: Anti-emetic, laparoscopic

The efficacy of preincisional peritonsillar infiltration of ketamine for postoperative analgesia in children following tonsillectomy

Ali Sarfraz Siddiqui, Raees US, Siddiqui SZ, Raza SA

Objective: To compare the analgesic effect of preincisional peritonsillar infiltration of two doses of ketamine compared with saline for postoperative analgesia in children undergoing tonsillectomy.

Study Design: Double blind, randomized control trial.

Methods: After the approval of the hospital ethics committee, 75 ASA I patients, aged 5 to 12 years, scheduled for tonsillectomy were included in this study. Patients were randomly allocated into one of the three study groups with 25 patients in each group. Anaesthesia was induced and maintained by standard technique. After endotracheal intubation, Peritonsillar infiltrations were applied by anaesthesiologist. After extubation, patients were shifted to post-anaesthesia care unit where, pain was assessed by Children's Hospital of Eastern Ontario Pain Scale (CHEOPS). Then patient shifted to ENT ward where pain was assessed and recorded for 24 hours.

Result: Patients in all groups were similar with respect to age, weight and height. There was significant statistical difference observed between group A and B as well as group A and C (P < 0.001),

regarding pain (CHEOPS) scores recorded for 24 hours. CHEOPS scores between group B and C were comparable and were not statistically significant ($P > 0.05$). Average duration of analgesia in group A was 3.2 ± 0.71 hours, in group B 11.36 ± 4.15 hours while in group C was 17.28 ± 5.33 hours.

Conclusion: Ketamine given by peritonsillar infiltration before tonsillectomy provides good post operatively analgesia in children undergoing tonsillectomy. Average duration of analgesia provided by Ketamine 0.5mg/kg was 11.36 ± 4.15 hours while Ketamine 1mg/kg was 17.28 ± 5.33 hours.

Comparison of ketamine and lidocaine for propofol induced pain Muhammad Zubair, Samina Ismail

Background and Objective: Propofol is the most commonly used intravenous induction agent and drug of choice when laryngeal mask airway is to be used. Although it produces good quality of anaesthesia and rapid recovery, it causes pain on injection with reported incidence of 28% and 90% in adults. Different methods have been used to decrease this pain most commonly intravenous lignocaine but the best intervention to prevent pain on injection with propofol is still unknown. The objective of our study is to compare lidocaine and ketamine for preventing propofol induced pain.

Methods: This was a comparative; double blind, randomized controlled trial (RCT) conducted at Aga Khan University Hospital, Karachi on 200 ASA status 1 and 2 patient from February 2011 to January 2012. Patients were randomized by using sealed envelope method in group of 100 each. For Group A patients 1% lidocaine 2ml and for Group B patients ketamine 0.35mg/kg diluted in 2ml mixed with 20ml of 1% propofol. An intravenous cannula was inserted in the dorsum of the hand. 25% of calculated propofol dose (2.0mg/kg) mixed with either drug delivered through this intravenous cannula. After 15 seconds of drug administration patients were assessed for the intensity of pain by using a visual analogue scale. The grading used was 0 as no pain, 1-3 as mild, 4-6 as moderate and 7-10 as severe pain. Following that, complete anaesthetic dose of propofol was administered and anaesthesia was continued as planned.

Results: There were no significant demographic differences between the two groups. Forty-six (23%) patients in Group A and 47 (23.5%) patients in Group B reported no pain with p value of 0.97. Mild pain was seen in 41 (20.5%) patients in Group A and in 43 (21%) patients in Group B with p value of 0.97. Moderate pain was seen in 13 (6.5%) patients in Group A and 11 (5.5%) patients in Group B with p value of 0.76. Severe pain was not seen in any of the patients in Group A and Group B. Prevention of pain has p value of 0.91 between two groups. P value of less than 0.05 was taken as significant.

Conclusion: Lidocaine or Ketamine are equally effective in preventing pain from propofol injection. It can be used as alternative for prevention of propofol induced pain.

Key words: Propofol, pain, intravenous injection, lidocaine, ketamine.

Frequency of anxiety in patients having caesarean section in general or regional anaesthesia

Darshana Maheshwari, Samina Ismail

Background: Patients undergoing surgery experience anxiety, which may be even higher in obstetric patients because of additional

concerns of fetus being exposed to anesthesia. High preoperative anxiety level besides increasing postoperative analgesia requirement, prolong hospital stay, adverse perioperative outcome, poor patient satisfaction can also lead to choose general anaesthesia (GA) for their caesarean section (CS). The objective of our study was to determine the effect of anxiety on patient's decision for choosing type of anaesthesia.

Methodology: This was a prospective cross sectional study. A total of one hundred fifty four patients were enrolled in the study for a period of three months admitted for an elective CS at obstetric unit Aga Khan University Hospital Karachi. Patient's demographic data, level of education, occupation, previous anesthesia experience, source of information and patient's choice of anesthesia was recorded by primary investigator. Anxiety was measured by using visual analogue scale (VAS). VAS is a 100 mm straight line, with a zero on the left side indicating no anxiety and 100 on the right side indicating maximum anxiety. Patient labeled as anxious if $VAS \geq 50$.

Result: Overall 56.49% ($n = 87$) patients were anxious coming for elective CS. Frequency of anxiety was 91.50% ($n = 65$) in GA group, while 26.50% ($n = 22$) in RA group. The difference in anxiety between both groups was statistically significant with p value of 0.0005. Age has no influence on anxiety. Educated patients were more anxious in GA as compare to regional anaesthesia (RA). Primigravida patients were more anxious both in GA and RA with 100% and 82% respectively.

Conclusion: Frequency of anxiety was statically higher in GA group compare to RA group. By the help of this study we can take measure to reduce anxiety and improve rate of regional anaesthesia in our tertiary care unit.

Key words: Caesarean section; Anxiety; General Anaesthesia; Regional Anaesthesia

Experience of pediatric procedural sedation and analgesia in a tertiary care hospital of a developing country.

Humaira Jurjar, Amyna Somani, Naureen Mushtaq, Zehra Fadoo, Anwar ul Haque.

Introduction: With the increasing frequency of diagnostic and therapeutic procedures in children and increased awareness about the presence of procedure related anxiety and pain even in youngest children, the demand for sedation and analgesia for children outside the operating room is increasing. The primary aim of procedural sedation is to decrease fear and anxiety of child, obtain cooperation, induce unawareness and achieve immobilization so as to allow a necessary procedure to be performed, while keeping the child safe.

PSA is the standard of care in clinical practice. It is a well-established medical discipline in the developed countries. Limited data is available from developing countries like Pakistan. Intend to carry out this hospital based study is to enhance our understanding regarding optimal application and safety of PSA.

Subjects and Methods: The was retrospective study conducted at the Aga Khan University Hospital, Karachi. Patients were between ages 6 months to 15 years. Patients with Class I and II according to ASA physical status were included in our study.

We use intravenous ketamine and propofol. Ketamine was given in dose of $0.5\text{-}1\text{ mg/kg}$ slow IV push. This was followed by intra-venous Propofol in the dose of $1\text{-}2\text{ mg/kg}$, titrated till the patient get sedated.

The procedure was then initiated with continuous monitoring of patient. A PSA form was used to record pertinent clinical and demographic characteristics of patients, information related to the procedure, vital signs and the occurrence of complications. Success of sedation was defined as successful completion of the procedure. Complications were defined as apnea, hypoxia (sustained pulse oximetry <90%), cardiac arrest and hallucination.

Results: Between last 2 years (2010 -2011), 1040 diagnostic and therapeutic procedures were performed using PSA. A satisfactory level of sedation was achieved for all the procedures. Out of which 689 were intra-thecal chemotherapy, 250 were bone marrow aspiration and biopsy, 21 were lumbar puncture, 6 removal of chest drain, 61 were radiological procedures which includes PICC line insertion and CT scan, 7 were burn dressings, 5 were BERA test and 1 lip Scraping biopsy procedure.

Adverse events occurred in 18 (1.7 %) patients. The complications faced were 10 episodes of transient de-saturation of less than 90% was recorded (0.9 %) which was resolved by increase flow of O₂ and repositioning of airway. Another 6 episodes of apnea recorded (0.57 %) which was resolved by bag mask ventilation. 2 episodes were of post sedation hallucination (0.2%) which resolved soon after child became fully awake. No episode was found of cardiac arrest and no one needed Mechanical Ventilation.

Conclusion: Intravenous Ketamine and Propofol were found safe and effective in children requiring Procedural Sedation Analgesia for painful procedures. There were low incidence (1.7%) of adverse events.

Airway management of patients undergoing head and neck cancer surgery

Shankar Lal, Dogar S, Siddiqui AS, Khan FA, Akhtar

Introduction: General anaesthesia for surgery in patients suffering from head and neck cancer is a challenging task for anaesthetists. There is potential for difficult airway due to limited mouth opening, distorted airway anatomy due to tumor expansion or previous surgery, fixation of the tissues of the oral cavity, surgical scar and radiation fibrosis.

Objective: The objective of this audit of practice was to review the airway management in patients undergoing head and neck cancer surgery in our institution.

Patients and Methods: The medical records of patients who underwent major surgery for head and neck cancer between January 2008 until December 2010 were retrospectively reviewed for airway management in the operating room. Variables were defined before the start of the audit and a form was designed for data collection.

Results: 211 patients were included in the review. 147(69.7%) were male and 64(30.3%) were females. In preoperative assessment, difficult airway was found in 62% of patients having Mallampati score III and IV. Airway was managed with tracheostomy in 58 (27.5%) patients, nasal intubation was done in 77(36.5%) and oral intubation in 76(36.0%) patients. None of the patients required an emergency tracheostomy during airway management. Median hospital stay was significantly higher ($p < 0.01$) in patients who had tracheostomy as compared to patients in whom airway was managed without tracheostomy.

Conclusion: Sixty-four percent of our patients were managed without

a tracheostomy. Head and neck cancer patients have potential for a difficult airway but, if managed properly emergency tracheostomy can be avoided.

Fiberoptic intubation in a pediatric patient with severe temporomandibular joint (TMJ) ankylosis

Ali Asghar, Faisal Shamim, Asiyah Aman

Abstract: Craniofacial abnormalities are associated with mandibular hypoplasia, reduced mandibular space with overcrowding of soft tissues and maxillary hypoplasia. A difficult airway can often be easily predicted with craniofacial malformations. Decreased mouth opening and limitation in jaw protrusion are independent predictors of difficult airway in such patients. The relative difficult problem becomes even graver in the pediatric age group because of their small mouth opening and uncooperativeness. The airway management is always challenging for anaesthesiologist in such cases.

A child with severe temporomandibular joint (TMJ) ankylosis presented with negligible mouth opening and required surgical correction under general anaesthesia. We are reporting this case and discussed various aspects of anaesthetic management with special context to anticipated difficult airway. It also covers about different management options to secure airway like fiberoptic intubation in pediatric population.

Our experience suggest that fiberoptic bronchoscopy with sevoflurane inhalational anaesthesia is effective method to secure the difficult airway in pediatric patients.

Key words: Temporomandibular joint ankylosis, Airway management, Fiberoptic intubation, Topical anaesthesia, Awake

Anesthetic management of a young patient with homocystinuria

Ali Asghar, Faiza Mazhar Ali

Homocystinuria is a rare autosomal recessive genetic disease. It is caused by a deficiency in cystathionine b-synthase leading to a defect in methionine metabolism. High levels of plasma homocysteine are associated with vascular injury via mechanisms of oxidative damage, vascular smooth muscle proliferation, promotion of platelet activation and aggregation, and disruption of normal procoagulant-anticoagulant balance favoring thrombosis. This is case of 8 year old boy known case of homocystinuria who was schedule for bilateral lensectomy and intraocular lens placement. There are three major Anaesthetic considerations. Development of thromboembolism, avoid use of nitrous oxide in balanced anesthesia regimen and hypoglycemia. We provided successful anesthetic management for a patient, during which we were careful to take measures against perioperative thromboembolism, avoid hypoglycemia and did not use nitrous oxide.

Key words: Homocystinuria, thromboembolism, nitrous oxide

Anaesthesia challenges in a patient with hurler syndrome: A case report

Amjad Nadeem, Khalid Siddiqui

Mucopolysaccharidosis (MPS) are a group of inherited disorder of connective tissue metabolism. The Hurler syndrome is a genetically transmitted lysosomal storage disease, resulting in accumulation of acid mucopolysaccharides in the central nervous system and

peripheral tissue. These children frequently present with difficulties in airway management, because of an enlarged tongue and limited movement of neck and perilyngeal tissue.

Here we describe the anaesthetic considerations and management of a 7 year old child with Hurler syndrome, who presented for an adenotonsillectomy.

Children with MPS, both anesthesiologist and surgeons should be aware of the expected complications. The benefit of the surgical procedure should be balanced against the risk of exposing the child to general anaesthesia.

Key words: Airway management, Hurler Syndrome, Mucopolysaccharidosis (MPS).

Rotational vs Standard smooth laryngeal mask airway insertion in adults: A randomized control trial

Dileep Kumar, Mueenullah Khan, Muhammad Ishaq

Background: The intention of this study was to compare the ease or smooth LMA insertion through the rotational similar to guedal airway insertion technique and Brain's LMA insertion technique on the basis of number of LMA insertion attempts, time duration of LMA insertion and complications: trauma, laryngospasm, and hypoxemia.

Methods: One hundred ASA I & II adults undergoing short elective surgical procedures requiring general anesthesia and spontaneous breathing technique were enrolled. Following pre-oxygenation, anesthesia was induced with propofol $2\text{mg}^{\text{kg}^{-1}}$ and fentanyl $2\mu\text{g}^{\text{kg}^{-1}}$. Patients were randomly assigned into one of the study group: rotational-(R) and standard-(S). LMA insertion was performed when patients became apnoeic and adequate LMA insertion depth achieved. Successful placement was confirmed by chest expansion, reservoir bag movement and appearance of capnographic tracing in both spontaneously breathing patients and in apnoeic patients with assisted ventilation.

Results: Significant differences were not seen in patient's demographics, mallampatti score, ASA status and pre-operative vital signs. Statistically insignificant difference was found for the time duration and number of LMA insertion attempts. The incidence of trauma was significantly noted in standard insertion technique (28%) compared to (6%) in rotational insertion technique ($P = 0.003$). The hypoxemia and laryngospasm was not reported among the groups.

Conclusions: The rotational technique was practically easy while negotiating the back of mouth and it requires little efforts that into the reason of lowest complication rate. This technique can be considered in adults when encountered difficulty and repetitive failures with standard LMA insertion technique.

Key words: Equipment: laryngeal mask airway; anesthesia: adults; technique: standard and rotational technique.

Anaesthetic management of abdominal hysterectomy in patient with congenital sinus node dysfunction.

Dileep Kumar, Faisal Shamim

A 45 years old woman having dysfunctional uterine bleeding was scheduled for total abdominal hysterectomy with bilateral salpingo-oophorectomy under general anaesthesia. On pre-operative anaesthesia assessment, she was found to have junctional rhythm at

rate of 44 beats/minute with bigeminies and pre-mature ventricular contractions on ECG. On further evaluation, she was diagnosed as having congenital sinus node dysfunction on the basis of 24 hours Holter monitoring. She was asymptomatic, no prior comorbidity and belonged to functional class one. General anaesthesia was successfully managed by vigilance, invasive monitoring, standby transcutaneous and transvenous pacemakers; use of cardiostable and vagolytic anaesthetic agents like Etomidate, Atracurium and Pethidine during the procedure and for postoperative pain management. Transcutaneous external pacing pads were placed just after induction of anaesthesia, their functional capability was confirmed and was ready for use if needed. The transcutaneous and transvenous pacemakers were on backup and both were not required. Patient was successfully managed and was discharged home on third postoperative day with uneventful hospital course. The elective pacemaker implantation was therefore not required.

Key words: General anaesthesia. Sino-atrial node. Arrhythmias. Sick sinus syndrome. Pacemaker.

Tamsulosin-induced severe hypotension during general anesthesia: A case report

Dileep Kumar, Fauzia A. Khan

Introduction: Tamsulosin, a selective α_1 -adrenergic receptor (α_1 -AR) antagonist, is a widely prescribed first-line agent for benign prostatic hypertrophy (BPH). Its interaction with anesthetic agents has not been described.

Case presentation: We report the case of 54-year-old Asian man undergoing elective left thyroid lobectomy. The only medication the patient was taking was tamsulosin 0.4 mg for the past year for BPH. He developed persistent hypotension during the maintenance phase of anesthesia while receiving oxygen, nitrous oxide and 1% isoflurane. The hypotension could have been attributable to a possible interaction between inhalational anesthetic and tamsulosin.

Conclusion: Vigilance for unexpected hypotension is important in surgical patients who are treated with selective α_1 -AR blockers. If hypotension occurs, vasopressors that act directly on adrenergic receptors could be more effective.

Knowledge about pain clinics and pain physician - a cross sectional survey of Karachi, Pakistan

Gauhar Afshan, Aziza M Hussain, Iqbal Azam, Mansoor Khan

Background: In Pakistan "Pain Management setup" especially "Pain Clinic" is evolving and very few institutions offer this Service. Aga Khan university has been running "multidisciplinary Pain clinic" since 1998. In our literature search we were unable to find any Pakistani data available to see whether the general physicians are aware of pain clinics and their concepts regarding treatment modalities

Objective: The main objectives of the study are to assess the awareness of general physicians of Karachi, Pakistan regarding pain physician and pain clinic set up in Pakistan, and to identify their source of information

Methodology: This cross sectional survey was funded by Higher Education committee (HEC). A total of 400 general practitioners (GPs) was included. An updated list of all GPs was obtained from PMA (Pakistan Medical Association) office, Karachi and was further verified by list provided by a multinational pharmaceutical company.

The final list was then be verified by the investigators in randomly selected areas of Karachi. A random sample of 400 GPs in each of the 15 towns was generated. A pre-coded questionnaire was then administered by trained interviewers.

The completed forms were then being double entered by two data entry operators. Frequencies were generated for all questions. 95% confidence interval for knowledge about Pain Clinics and Pain Physicians were also be obtained

Results: More than 50 per cent of general practitioners (GPs) in the city believe that a pain physician (anesthesiologist/anaesthetist) is an orthopedic surgeon or neurologist or a family physicians while 85 per cent of GPs are unaware about the modern pain relieving technologies. About 52.6 pc GPs had seen patients with a history of pain for more than three months while 92.7pc of the GPs were aware that a pain clinic was operating in the city. Backache is the most commonly reported pain at clinics across the city followed by knee joint pain and headache. Internet / scientific literature were major source of information in the survey. It was also found that GPs who were attending regular educational programmes were well aware about the related new disciplines and modern way of treatment.

Conclusion: The survey indicates that most GPs lacked knowledge about the role of anaesthetist in pain management and modern methods of relieving pain mainly interventional pain techniques. Internet / scientific literature are major source of information and further work needs to require for education/awareness session

Patient satisfaction with the pain clinic

Gauhar Afshan, Aziza Hussain, Mansoor Khan, Amber Saleem

Introduction: Patient satisfaction has become an important endpoint in outcome research .For patients attending pain clinic, explanation of the pain problem is as important as cure or relief of their pain. To make them understand about their pain problem is one of the major responsibilities of pain physician which lead to greater patient satisfaction & reduced treatment dropouts. This study is designed to determine the patient's satisfaction with consultation & their expectation of pain clinic in a tertiary care center.

Objective: To determine the overall satisfaction of chronic pain patients visiting pain clinic for consultation and also to determine patient's perceptions regarding their expectation, mainly explanation of pain problem & understanding of information given.

Methodology: This was a hospital based cross sectional study. Aga khan hospital offers 4 outpatient consultant clinics /week. The study was conducted in outpatient pain clinic (Consulting Clinic 3). Duration of each consultation was an average of 20-25 minutes (as per time slot of initial visit). Clinic nurse gave questionnaires to patients following their first consultation

Results: A total of 240 patients were included. The average age of the patients was 46.75 ± 14.80 years with more female than male (62.1 % VS. 37.9%). All patients were satisfied with their consultation. 97.1% patients indicated that their consultation was on time while 96.6 % patients reported that time spent was adequate. 98% feel that consultant explained the different treatment options with common side effect and advantages. Majority felt encouraged to ask questions during appointment and consultant paid attention to issues /concerns important to them.

Conclusion: This study has highlighted that pain physicians

in our setup are providing satisfactory service to chronic pain patients. However improvements can be made further by providing information leaflets etc. to address some of the issues raised. This study also indicated that no less than 25 minutes is required for initial visit with new patient and so message should be clearly given to hospital administration to follow this strictly.

Pain characteristics and demographics of patients attending tertiary care hospital based pain clinic, Aga Khan University Karachi, Pakistan

Gauhar Afshan

Introduction: Chronic Pain (CP) can be defined as continuous or intermittent pain of longer duration than 6 months. It is a common and important health problem in the adult population worldwide. The CP point prevalence is 10.1 - 55.2% and it has been more common in women & increasing age and equally common among urban and rural population.

The objective of this study is to outline the pain characteristics and demographic distribution of patients attending pain clinic in tertiary care hospital, affiliated with Aga khan university, Karachi Pakistan.

Methodology: A software programme was installed on Sahl as PMCS (Pain Management Clinic System). Patients referred to our clinic come from Karachi and other areas from province of Sind (at large) as well as other provinces. Data from consecutive new patients attending pain clinic during 2006-2010 were collected and entered in the program in 15 variables.

Result: A total of 1108 new patients were seen in our clinic. Out of this 741 patients (66.9%) were referred from other services while 367(33.1%) were self-referrals. The female to male ratio was 600 to 508 (54.2%: 45.8%) The most affected age group was in the 51-70 year age range and mostly patients (62.4%) had a history of pain duration between 1-5 years. Mean pain score on numerical rating scale was 5.49 ± 2.27 . One of four patients (277: 831) attended our Pain clinic from outside Karachi. Low back pain (musculoskeletal and disc related) was the predominant complaint of pain (more prevalent in male 67.5%) followed by peripheral limb pain (CRPS), abdominal pain (cancer) neck pain and others (knee, shoulder, neuropathic). 70.2 % of patients had depression while 78.2% had disturbed night sleep.

Conclusion: Our data constitute the first detailed Pakistani report regarding pain and demographic characteristics of patients attending a tertiary care pain clinic. Similar data from other pain clinics and tertiary care centers will help us to understand the types of pain population visiting pain physicians and pain facilities in Karachi and other regions of Pakistan. This will certainly guide us setting or expanding Pain clinic according to our needs.

Successful pregnancy outcome in Bernard-Soulier syndrome --- A case report.

Muhammad Sohaib, Muhammad Irfan Ul Haq

Bernard-Soulier syndrome (BSS) is a rare platelet disorder with an incidence of less than 1:1 000 000. First described in 1948, it commonly presents as an autosomal recessive disorder¹.

It is characterized by giant platelets, thrombocytopenia and a prolonged bleeding time. It is usually manifested by spontaneous and often profuse bleeding. These abnormalities are caused by genetic defects of the glycoprotein (GP) Ib/IX/V complex that constitutes

the von Willebrand factor receptor on the platelet surface^{2,3}.

We present the case of a 20-year-old pregnant woman with Bernard-Soulier Syndrome. Patient presented multiple times to the hematologist with complaints of recurrent episodes of gum bleeding, epistaxis and polymenorrhagia. She was managed during pregnancy with oral medication i.e. ferrous sulphate, folic acid and tranexamic acid. Initially elective cesarean section was planned but due to suboptimal CTG, at 38 weeks of gestation, emergency cesarean section was done after involving multidisciplinary teams which include hematologist, obstetrician, and anesthesiologist. In accordance with hematological consultation, patient was transfused one mega unit of platelet from a single donor along with a bolus of 2 gm Tranexamic acid in the preoperative area. During intraoperative course, invasive arterial line was taken along with two large bore intravenous cannulas. Estimated blood loss during the surgery was around 800ml with no signs of diffuse oozing. Ergometrine and Prostaglandin F2-Alpha was given intravascularly to controlled the uterine haemorrhage. Postoperatively, patient was again given transfusion of six platelets units and tranexamic acid was started at a dose of 500mg every 6 hourly intravenously for further 48hrs than it was switched to oral regimen. Patient remained hemodynamically stable throughout her stay at the hospital. We conclude that optimal platelets transfusion along with tranexamic acid is a good alternative to other expensive antifibrinolytics and recombinant factor VIIa⁴ and further studies are recommended in this regard.

Key words: Bernard-Soulier syndrome, platelet disorders and pregnancy, platelet dysfunction and pregnancy

Strengthening critical care competency through capacity building of nurses at Aga Khan University Hospital, Karachi

Khairunnissa Hooda, Imran M, Pirmuhammad

Background: Intensive care nurses plays a vital role in total patient care management and are also required to be comfortable with a wide variety of technology and its uses in the critical care setting. At present this training is provided through a comprehensive competency based orientation program in collaboration with biomedical in-services, manufacturer training, and many hours of education time with experienced operators. Annual continuing education is required to ensure that all skills are kept up to date. Many intensive care unit management teams send their nurses to conferences to ensure that the staff is kept up to the current state of this rapidly changing technology.

Method: Plan-Do-Check-Act (PDSA) methodology was used with process analysis instrument as a quality improvement tools to do the capacity building of intensive care unit nurses in specialty based developments. With limited resource allocation for everyone to be trained and develop critical care competency in such manner, Division of Nursing Services-critical care management team in collaboration with Human Resources Division invited an experienced TKN Volunteer to do the needful.

Result: The above initiative has proven to improve quality of care to critically ill patients, enhanced clinical competencies, and professional confidence; introduction of concepts like FAST HUG for patient care as a vital few and its application at the bed side was very beneficial. Practicing nurses was able to establish International networking

Conclusion: Enhancing professional development provides

opportunity to strengthen organizational commitment and provides inspiration to staff during difficult times.

Comparison of effects with height and weight and height with adjusted dose of local anaesthetic in spinal anaesthesia for elective Caesarean section

Khalid Siddiqui, Hameedullah, Ali Asghar

Introduction: Spinal anaesthesia with bupivacaine is routinely used for both elective and emergency Caesarean section. This technique however is associated with a significant incidence of hypotension resulting from sympathetic blockade. Large variety of dosage regimens are in use for spinal anaesthesia for Caesarean section. Objective of this study was to compare the height of block and incidence of hypotension when two different methods of fixed dosage regimens are used.

Methodology: It was a randomized double blind clinical trial. After approval of hospital ethics committee, 60 patients were randomly divided in two groups. Group A was comprised of those patients in whom dose of local anaesthetic was adjusted according to both height and weight. Group B was comprised of those patients in whom dose of local anaesthetic was adjusted according to height only. The study was designed as two sided with 5% significance level and 80% power.

Result: A total of 60 women with singleton pregnancies were included in this study. The mean differences was not statistically significant between the groups for age, weight, and dose while significant difference was observed in average height in between groups. There was no significant difference of mean heart rate between groups. Rate of hypotension was significantly high in group B than group A (56.7% vs. 26.7%; p=0.018).

Conclusion: We have shown that adjusting the dose of isobaric bupivacaine to patients' height and weight provided adequate anaesthesia for elective caesarean section as well as associated with a decreased incidence and severity of maternal hypotension as well as decreased ephedrine administration.

Key words: Spinal Anaesthesia, Height and weight, Local anesthetic, Caesarean section

Building family-provider partnership for critically ill patients

Khairunnissa Hooda, Imran, M

Background: Traditional service delivery models in hospitals uses survey to measure patients and family feedback and satisfaction about the care levels. These surveys often provide superficial information and limited understanding of family needs and opinions. Survey assessments at times fail to address root causes of family complaints resulting in missing an opportunity to improve and maintain family provider relationship at a satisfactory level.

Objective: The objective of this paper is to share strategies initiated to understand the family perspectives, their involvement, enfranchising clinical staff and fostering care collaboration for home ventilation patients.

Methods: Understanding the family perspective involves a thorough assessment by conducting focus group interviews for clinical and operational issues. Hardwiring family involvement in care provision and decision making was performed through Plan-Do-Check-Act (PDSA) methodology; with process analysis instrument as a quality

improvement tool. Daily checks were done to provide appropriate weaning, rehabilitation, nutritional support, pain management and family briefings about plan of care. Staff education for communicating with families and providing care in their presence was facilitated. Care giver education sessions was executed –identifying family members as care takers at home for basic skills like Tracheostomy Tube (TT) care, suctioning, NG feeding, positioning, range of motion exercises, mobilization up to chair, and handling of the portable ventilator and other equipment to be used during care at home. Family partnership initiatives programs were conducted to promote best practice guidelines for the task to be completed for family centered care.

Result: Fostering care collaboration; 20 patients was discharged on home ventilation from January 2010 to Dec 2011 in a Tertiary Care University Hospital in Karachi, Pakistan. Bedside Staff compliance for defined strategy was improved from 25% to 93%.

Conclusion: Goal of family involvement in patients care processes was achieved; sustaining family involvement in care provision required a cultural change. Family focused initiatives have received attention, coordination and improvements in the care of ventilator-dependent patients.

Anesthetic management of a patient with myotonic dystrophy for total abdominal hysterectomy – A case report

Khalid Samad, Sobia Khan, Hayat Khan, Hameedullah

Myotonic dystrophy (MD) is a rare autosomal dominant inherited neuromuscular disease with systemic involvement. Anesthetic management poses a great challenge in these patients because of increased risk of perioperative complications, particularly pulmonary and cardiac complications. Various anesthetic techniques have been described but there is no general agreement about the safest method. Although regional anesthesia where indicated can safely be performed in these patients, proper preoperative workup along with careful examination and documentation to prevent intraoperative and postoperative complications is central to patient management. Understanding the relative risks for postprocedure neuropathy in normal population of patients, and advising patients of such risks, is paramount to reducing the likelihood of misunderstanding and the development of resentment in the case of an unexpected, unwanted result.

We are reporting a case of adult female patient with myotonic dystrophy who underwent total abdominal hysterectomy. Surgery was planned under combined spinal/epidural anesthesia. Intraoperative and postoperative course was smooth with uncomplicated recovery.

Anesthetic concerns, preoperative monitoring and care along with the role of regional anesthesia in patients with MD will be discussed.

Difficult airway in a patient with bullous pemphigoid: A case report

Mohammad

We report a case of bullous pemphigoid that presented with laryngeal stenosis and critical airway narrowing that was initially managed with jet ventilation. Anaesthesia was maintained with propofol infusion, ventilation was successfully performed by introducing a size 10 french suction catheter through the stenotic laryngeal orifice. Thirty minutes into anaesthesia, she developed subcutaneous emphysema and decreased air entry on right side of the chest but

remained hemodynamically stable. The airway was further managed by tracheostomy.

Key words: Bullous pemphigoid, Jet ventilation, Tracheostomy

Postoperative interventions made by the acute pain management services to optimize pain management in patients receiving epidural and patient-controlled intravenous analgesia

Mohammad Yasir, Aliya Ahmed

BACKGROUND: The acute pain management services (APMS) aim to ensure adequate pain relief with minimal side effects. To achieve this they often need to make interventions to the originally prescribed strategies. We performed an audit of these interventions over four months.

METHODS: APMS assessed the efficacy of pain relief and any side effects in patients receiving epidural or PCIA. They noted interventions made to the original analgesic prescription. The effect of the interventions was also noted.

RESULTS: During four months 323 patients were followed up, 209 (64.7%) receiving epidural infusions, and 114 receiving PCIA morphine or tramadol. Overall 114 (35.3%) required interventions, 76 (36.4%) with epidural and 38 (33.3%) with PCIA. Ninety eight (85.9%) had inadequate pain relief, 61 (29.1% of 209) with epidural, 37 (32.4% of 114) with PCIA. Interventions in the epidural group were bolus (41), or bolus plus another analgesic (19). With PCIA, 19 patients received bolus and change of PCIA settings and 18 patients received bolus and other analgesics. Motor block occurred in 13 patients; switch over to lower concentration was done in 11, while change in position worked for two. Epidural was discontinued in one patient for hypotension. One patient receiving PCIA required ondansetron. Improvement was seen in all patients after the interventions.

CONCLUSION: APMS plays an important role in improvement of quality of postoperative pain relief and management of side effects.

Comparison of accuracy of Prayer's sign with Mallampati test in predicting difficult endotracheal intubations in diabetic patients

Mirza Mudassir Baig, Fazal Hameed Khan

Introduction: Difficult or failed tracheal intubation has been identified as one of the most important cause of death or permanent brain damage during anesthesia. About one-third of long-term insulin-dependent (type I) diabetics present with laryngoscopic difficulties. This is due, at least in part, to diabetic stiff joint syndrome characterized by a short stature, joint rigidity, and tight waxy skin. Patients with diabetic stiff joint syndrome have difficulty in approximating their palms and cannot bend their fingers backwards (the prayer sign). Many methods have been used to predict difficult intubation. Prayer's sign and Mallampati test (MT) are two of them. MT is used to evaluate oropharyngeal structures while Prayer sign can help to evaluate the movement at temporomandibular joint and neck.

Objective: To determine the accuracy of Prayer's sign and Mallampati Test in predicting difficult endotracheal intubation in diabetic patients.

Study Design & Setting: Cross sectional study at Aga Khan Hospital, Karachi from 1st June 2008 To 6th April 2010

Subjects and Method: 357 patients were enrolled in this observational

study required endotracheal intubation for elective surgical procedure. Prayer's sign and MT were performed for the assessment of airway by specifically trained observer. Ease or difficulty of laryngoscopy after the patient is being fully anesthetized with standard technique and laryngoscopic view of first attempt was rated.

Results: Of the 357 patients included in the analysis, 125 (35%) were classified as difficult to intubate. Prayer's sign showed significantly lower accuracy, positive predictive value and negative predictive value than Mallampatti Test. Comparison of specificity however did not reveal any significant difference between these two tests. The sensitivity of Prayer's sign was lower 29.6 (95% confidence interval, 21.9-38.5) than MT 79.3 (95% confidence interval, 70.8-85.7) indicating that Prayer's sign is a poor predictor of difficult intubation.

Conclusion: Prayer's sign is not acceptable as a single best bedside test for prediction of difficult intubation.

Key words: Prayer's sign, Mallampatti, Difficult intubation

Multi-disciplinary approach for managing "total pain" among dying patients

Nasir Khan, Farida Dattoo

Background: The Aga Khan University Hospital Home Based Palliative Care (HBPC) services were designed to provide palliative care focusing on symptoms management including pain management. The purpose of this study is to raise the concept of total pain and its management under anesthesia led pain management programs.

Methodology: Pain is prevailing symptom reported in palliative care patients. Exploring different studies for total pain management and comparing it with existing practices in Pakistan, multi-disciplinary approach with leading role of anesthesia can help patients. Different studies retrieved through Pub-med, Ovid, science direct and MD consult to highlight different roles.

Results and discussion: Total pain is influenced by physical, psychological, spiritual and social factors. In palliative care lack of awareness about anesthesia led pain management and other resources had further added to inappropriate management of total pain.

Recommendations and strategies: An interdisciplinary approach under supervision of anesthesia should be made in managing total pain. Anesthesia led pain management clinics should be started for patients with palliative care. Patient's follow-ups in pain management clinics in coordination with HBPC services can help in re-assessment. Pharmacy can help in the availability of narcotics and different patches. Anesthesiologists can take help for managing psychological, social and spiritual issues.

Conclusion: Patients with palliative care are experiencing total pain especially at the end of life. Acknowledging the role of anesthesia in coordination with HBPC and other support services can help in managing total pain of dying patients.

Anaesthetic management of intracranial lesion in an uncorrected Tetralogy of Fallot in young patient

Nosheela Rafique, Mohammad Hamid

We are presenting a case of 16 years old female with uncorrected TOF, who came to OR for intracranial lesion (brain abscess) in parieto frontal area with midline shift. Having right ventricular hypertrophy, clubbing, central and peripheral cyanosis.

Pre-operative antibiotic cover given to avoid bacterial endocarditis. Hemodynamic swings, tachycardia, hypoxia, hypercarbia, acidosis and dehydration were avoided throughout surgery. Hemodynamics were maintained and managed by monitoring continuous arterial line secured pre-induction and central line after induction. Surgery was uneventful; pain controlled with fentanyl boluses intra-operatively and post operatively by tramadol infusion. Patient extubated post operatively in recovery room fulfilling extubation criteria. Remained hemodynamically stable in recovery room and in SCU. She was discharged on 5th post-operative day from the hospital on SpO₂ of 70-80% at room air. Neurosurgeon, Pediatric cardiologist, Anesthesiologist and Intensivist were involved in the perioperative planning and management of the patient.

Time between Admission and start of surgery of first cases in SDC-ORs

Nosheela Rafique, Fauzia Nasim Minai

First case start time is an important indicator of organizational performance and efficiency particularly in day care units. Delays in start of first case are frequently observed cause late running OR lists, extended working hours of the support staff, longer fasting of patients and delayed discharge time for the last day case patients.

In order to identify the areas of patient care pathway where significant delay is occurring we decided to audit the time between registration of first scheduled patient and this patient's arrival in the designated OR, by recording the time of registration, time of arrival in waiting room of SDC-OR suite and time of arrival in the designated OR. We included 112 first on list cases including pediatric patients during a two month period.

Out of total, 9.4% patients were in time i.e., within 25mins reached SDC-OR after admission and pre-operative assessment. While, 84% of the total patients were late, i.e., took longer than 25 minutes to 60 minutes and rest 6.6% took more than one hour.

Homelessness leading to adverse behavior and mental illnesses among homeless children

Sadaf Huda, Anaiz Khowaja

Introduction: It is mentioned in many places in the literature that "adverse behavioral outcomes were more common in homeless children compared with housed" (Bassul, Weinreb, Dawson, Perloff, & Buckner, 1997). According to the nation newspaper's statistics dated may 5th 2009 states that around 1.2 million children are homeless throughout Pakistan and 30,000 homeless children are in Karachi.

Purpose: To Explore the effect of homelessness on children and correlate it with contemporary literature.

Methodology: Systemic review of literature from 10 research articles from 1997-2010 was conducted through electronic medium by using Pediatrics, pubmed, and google search engines.

Results: The literature evidently highlights in many places that homelessness brings about greater stress and stress in itself is one of the important risk factor preceding mental illnesses. (Weinreb, Goldberg, Bassuk, & Perloff, 1998) also highlights that "physical punishment and inconsistent discipline, may contribute to aggressive and antisocial behaviours in children" and low income families are more prone towards greater physical punishments, hence contributing

to adverse behaviours. The homeless kids not only have to face the adversity of being poor but also of lacking residential instability

Recommendation: More institutions should work for the betterment of the homeless children and UNO's all applicable child rights' principles should be practiced. Moreover, teaching programs should also be done with the homeless children since Freud very vividly highlighted the importance of the early childhood. More research and field work is required to decrease the pressure of homelessness among kids in order to provide them with a better environment to grow in.

Neonatal tetanus; illuminating neonatal vigor to reduce morbidities, a review of the literature

Sadaf Huda

Introduction: Every second many neonates die with neonatal tetanus (NNT); mostly in developing countries. According to Kiwanis and UNICEF (2011), in Pakistan, NNT ventures neonates who have inconsiderable or no access to health amenities. NNT is an infection arising between 3rd and 28th day after the birth of a newborn. Pakistan is one of the chief eight countries which accounts for 73% of bereavements from NNT (Nisar, Aziz & Mumtaz, 2010)

Objective: To explore the concept of NNT. To identify preventive strategies for reducing the risk factors; thereby reducing the incidence of neonatal tetanus in low socio economic conditions.

Method: Systemic review of literature from 20 research articles from 2003-2011 was conducted through electronic medium by using Elsevier, pubmed, wiley and google scholar search engines.

Results: The systemic review clearly enlightened that the primary risk factors related to NNT are inadequate immunization, lack of clean delivery services and improper postpartum cord care (Ghosh & Sharma, 2011)

Conclusion: NNT which is caused by Clostridium tetani spreads through many risk factors. These should be accounted to the antenatal mothers by teaching about immunization, providing clean delivery kits and promoting EmOC services. Moreover, poor cord handling practices should be diminished by providing an alternative strategy of keeping cord dry and exposed to air or loosely covered with clean clothes (WHO, 1998) instead of putting cow dung or ghee on it. Many strategies have already been implemented to curtail the magnitude of this disease. However, with further recommendations and researches, more efforts could be made to eliminate this disease.

Social phobia; A hidden disaster in the outskirts

Sadaf Huda, Anaiz Khowaja

Introduction: In the collectivist nature of suburbs of Pakistan, Social phobia can be an extremely disruptive disorder, which usually causes great distress in the sufferer and sometimes for those close to them. (Neal & Edelmann, 2003). It is the third largest mental health delinquent in the world with its chronic nature and poor quality of life; and therefore should be determined early in childhood and timely treatment should be given.

Objective: This literature review is an endeavor to discover the concept of social phobia in sociocultural context.

Methods: Systemic review of literature from 16 research articles from 1998-2010 was conducted through electronic medium by using Elsevier and SAGE.

Results: Literature clearly highlights that social phobia is more persistent in the countries which are collectivist. It was found that neurobiological factors, genetics, gender, and socio culture plays an important role and are major determinants of social phobia. In the socio cultural context, collectivist societies are more prone towards getting social phobia and the rural communities in Pakistan tend to have a collectivist orientation; thus the kids there are at high risk and so it should be identified from the beginning, since the age of onset varies widely from 5 years to 9 years of age in children. The treatment therapies vary widely such as exposure therapy, social skills therapy, and applied relaxation.

Conclusion: Much more researches and field work is required in reducing social phobia especially in the young girls of suburbs of Pakistan in order to prepare the future generation for developing a healthy family and thus a healthy country.

Anaesthetic management of uncontrolled hyperthyroid parturient undergoing LSCS.

Saima Rashid, Sobia Khan

Background: 21-year-old patient, who was a known case of hyperthyroidism, was scheduled for LSCS at 34 weeks due to IUGR.

Anesthetic Management: The case was conducted in epidural anesthesia with invasive arterial pressure monitoring, and the procedure remained uneventful.

Conclusion: She was shifted to the recovery room and kept under observation. She was initially hypertensive but was settled with Propanolol. She was kept under observation for the next 24 hours though the course of recovery remained smooth and the symptoms of thyroid storm did not develop. She was shifted to I/V analgesia after 24 hours.

Keywords: Hyperthyroidism, Elective LSCS for IUGR, Epidural Anaesthesia.

Incidence and severity of post dural puncture headache after spinal anaesthesia for cesarean section ; a comparison between 25G Quincke cutting and 25G Pencan® pencil point spinal needles

Ali Sarfraz Siddiqui, Ahmed J, Siddiqui SZ, Haider S

Objectives: The objectives of the study were to compare the frequency and severity of PDPH after spinal anaesthesia for cesarean section between 25G Quincke cutting spinal needle and 25 G Pencan.

Place And Duration Of Study: Department of Anaesthesiology, Surgical intensive care unit and Pain Management, Civil Hospital Karachi, Dow Medical College, Dow University of Health Sciences from August 2009 to August 2010.

Study Design: Double blind, randomized control trial

Patients And Methods: Two hundred adult female patients aged 20 to 40 years, ASA I and II, presenting for elective or emergency caesarean deliveries under spinal anaesthesia were randomly divided into two groups of 100 patients each. In group P, spinal anaesthesia was performed by Pencan needle while in group Q spinal anaesthesia was performed by Quincke cutting needle using standardized technique. Level of block (sympathetic, sensory, motor) were assessed intra operatively. Patients were followed for three consecutive days post operatively for headache, its onset, severity & associated symptoms.

Results: Statistically significant difference was observed among two groups regarding incidence of PDPH. Ten patients (10 %) in Quincke cutting needle group showed PDPH while three patients (3%) in Pencan (pencil point spinal needle) group showed PDPH.

Factors affecting prolonged stay in the PACU: A qualitative study

Sharifa Bashir Lalani, Fauziya Ali, Zeenatkhanu Kanji, Salma Jaffer, Mohammed Ali

There are number of factors that prolong the stay of postoperative patients in PACU. However, less has been discovered from the PACU nurses about reasons for prolonged patients stay and recommendations to solve this issue. A qualitative descriptive approach was used to explore the experiences of nurses working in the PACU at a tertiary care hospital in Karachi, Pakistan. Data were collected using semi-structured interviews. The data were grouped into two categories and subcategories. An overarching theme that was derived from the content analysis was that of the factors impacting quality patient care. The content analysis generated two broad categories "Organizational factors" and "Outcomes". The findings highlighted the effects of prolonged-stay patient on the primary role of the PACU nurses; consequently, which could affect the operating room schedule, normal flow of patients and transferring out to the other units.

Postpartum low back pain with or without epidural: A prospective survey.

Shemila Abbasi , Hamid M, Ahmed Z, Nawaz FH

Introduction and objective: The most frequent concern of patients receiving epidural for labor pain relief is post-partum back pain. This survey was designed to assess the prevalence of PPB with and without epidural analgesia among post-partum women and to determine whether epidural anaesthesia during labor and delivery is a risk factor for postpartum back pain.

Design: Prospective cohort with follow-up at first postnatal day after one week, one month and third month after delivery through direct and telephonic contact.

Method: We conducted this study at Aga Khan University and hospital. Women presenting to labor room of AKUH for labor and delivery were the target population. 482 women were recruited during study period. Response rate was 95.4% and these cases were included in our statistical analysis. Two forms were designed for data collection before and after delivery and first form was filled by one of the investigator including demographics, past back pain history and details of labor while second form was filled by a research assistant separately to prevent bias which includes follow up of back pain and treatment received. The primary outcome variable was postpartum backache and quantified with VAS score. Of the 460 women 230 received epidural analgesia and remaining did not received.

Results: The prevalence of post-partum backache in epidural vs. non epidural groups was 40.9% vs. 40% on day one and 32.2% vs. 35.2% at one week. However, at one and third months follow-up, backache was observed less likely in epidural group than non-epidural group [Cured OR: 0.63; 95%CI: 0.39 to 0.99] and [Cured OR: 0.32; 95%CI: 0.15 to 0.69] respectively. The adjusted odd ratio was [OR: 0.59; 95%CI: 0.36 to 0.99] at one month and [OR: 0.25; 95%CI: 0.11 to

0.58] at 3rd months. There was no significant difference between the two groups in pain score.

Conclusion: Post-partum low back pain was equally affecting patients of both groups and epidural analgesia is not associated with post-partum low back pain.

Keywords: Low back pain, post-partum, parturient

Comparisons of Mallampati with Lower jaw protrusion maneuver in predicting difficult laryngoscopy and intubation

M Irfan Ul Haq , Hameed Ullah

Introduction: Unanticipated difficult laryngoscopic tracheal intubation remains a primary concern for the anesthesiologist as the failure to maintain a patent airway after the induction of general anesthesia is one of the most common causes of anesthesia-related morbidity and mortality. The reported incidence of a difficult laryngoscopy or endotracheal intubation varies from 1.5% to 13% in patients undergoing surgery.

Objective: The objective of this study was to compare the sensitivity and specificity of Mallampati test with Lower jaw protrusion maneuver in predicting difficult laryngoscopy and intubation.

Setting: Pre-operative anaesthesia clinic, surgical wards and pre-operative area of operating rooms of Aga Khan University hospital from 01-07-2007 to 31-07- 2009.

Study design: Prospective observational comparative cross sectional study.

Data collection procedure: Seven hundred and sixty patients undergoing surgical operation requiring tracheal were selected. Airway assessment consisted of Mallampati test and Lower jaw protrusion maneuver. After induction, anaesthetist performed laryngoscopy and graded it as described by Cormack and Lehane. Number of attempts and time taken for intubation were also noted.

Results: The results of our study showed that Lower jaw protrusion maneuver has higher sensitivity as compare to Mallampati test (95.9% vs. 27.1%) in predicting difficult intubation. Both tests have similar specificity (88.5% LJP vs. 95.8 MP) and PPV (70.6% LJP vs. 64.8% MP) in predicting difficult laryngoscopy and intubation, however, Lower jaw protrusion maneuver has a slightly higher negative predictive value (98.7% vs. 82.0%) and significantly higher accuracy (90.1% vs. 80.3%) as compared to Mallampati test. Combining both test for prediction of difficult laryngoscopy and intubation increased the sensitivity (42.9%) as well as specificity (98.1%) of the Mallampati test alone.

Conclusion: Mallampati test is the most commonly used test for the prediction of difficult laryngoscopy and tracheal intubation but with limited accuracy. The results of this study show that by the addition of Lower jaw protrusion maneuver to Mallampati test, the ability to predict difficult endotracheal intubation is increased. We, therefore, recommend the addition of Lower jaw protrusion maneuver to the routine preoperative evaluation of airway.

Key words: Airway; Difficult intubation; Lower jaw protrusion maneuver; Mallampati.