

Results: The time to emergence following cessation of anesthesia was 4.7 ± 1.3 minutes in desflurane group while it was 9.6 ± 3.3 minutes in propofol group ($P < 0.05$). The intraoperative hemodynamics, brain relaxation, vasomotor response and emergence characteristics were comparable in both groups. **Conclusions:** The use of desflurane for maintenance of anesthesia is associated with faster emergence when compared to propofol in patients undergoing resection of CP angle tumors. However, the intraoperative profiles were similar with the use of either anesthetic agent.

14. Clinical outcome of intracranial aneurysms: A retrospective analysis

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Background: The aim of the study is to analyze the factors affecting the outcome of patients with intracranial aneurysms and to review the perioperative management of patients undergoing surgical clipping. **Materials and Methods:** Retrospective review of all the patients presenting for neurosurgical clipping over a period of 10 months was done. Data collected and analyzed included demographic profile, preoperative medical and surgical record, aneurysm characteristics, neurosurgical grading, anesthetic details, intra and postoperative complications and clinical outcome at discharge and six months after discharge from hospital. $P < 0.05$ was considered significant. **Results:** Four hundred and eighty two patients of aneurysmal SAH were seen, of which 330 underwent an intervention under anesthesia; 93% (307/330) had clipping, and 7% (23/330) had coiling. All the factors affecting the outcome were analyzed. The patients with higher WFNS and Fischer grade, hypertension, diabetes mellitus, hydrocephalous, preoperative infarct, vasospasm, multiple aneurysms and re-bleeding were associated with poor outcome. **Conclusion:** From the analysis it was observed that various clinical factors and premorbid conditions were associated with a poor outcome. We conclude that the outcome in patients with aneurysmal SAH is affected by multiple factors. A thorough understanding of these factors can help us in predicting the perioperative outcome in these groups of patients.

15. Comparison of propofol anesthesia to dexmedetomidine + propofol for intraoperative management and emergence in craniotomy surgery

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Background: This study evaluated the effect of adding DEX to a total intravenous anesthetic on hemodynamic control and emergence, and requirement for antihypertensive therapy and long acting opiates. **Materials and Methods:** Thirty nine ASA I-III patients were enrolled into this prospective, single blind, randomized study. All patients received a standardized anesthetic and were randomized to propofol (PROP) or propofol plus DEX ($0.2-0.7$ mcg/kg/hr) infusions during surgery. Hemodynamic data is collected continuously during the case. The emergence was videotaped and analyzed for the number of episodes and severity of coughing. Hospital length of stay was also examined. Data is analyzed using ANOVA with repeated measures and the Kruskal-Wallis test. **Results:** Demographic data is similar among the 2 groups. There were no adverse events or neurological outcomes in either group related to the anesthetic. Video analysis of emergence showed a tendency of increased coughing episodes for PROP vs. DEX: 5.6 ± 8.3 vs. 1.1 ± 1.3 ($P = 0.04$) while surgeons' ratings were similar for both groups ($P = 0.35$). Mean arterial blood pressure (MAP) significantly decreased intra-operatively from baseline within groups but was not different between groups. The length of hospital stay was not significantly different for DEX and PROP groups: 2.6 ± 1.9 , and 3.2 ± 1.9 days, respectively. **Conclusion:** DEX appears to reduce coughing therefore providing a more favorable emergence when compared to PROP. PROP + DEX is hemodynamically stable than PROP

16. Perioperative anesthetic management and outcome of patients undergoing surgery for moyamoya disease: An institutional experience

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Background: The aim was to study the demographics, anesthetic management and outcome in patients undergoing surgery for Moyamoya disease. **Materials and Methods:** After obtaining institutional approval, medical records of all patients who underwent revascularization surgeries for Moyamoya disease from January 2007 to present date is included for retrospective analysis. Various preoperative, intraoperative, and postoperative data is recorded. **Results:** There were total of 16 patients. Six patients underwent encephaloduroarteriomyosynangiosis, two underwent

STA-MCA Bypass and eight underwent combination of both. Thirteen patients belonged to pediatric age group (age < 18 years). There were 10 male patients. One patient had an associated cleft lip and palate. Standard monitoring and anesthesia techniques were used. Fourteen patients were induced with intravenous agent while two underwent inhalational induction. Thirteen were maintained on inhalational agents and two on propofol infusion. Opioids and muscle relaxants were used as required. All patients had a hemodynamically stable course. Normocapnia and normothermia was maintained. One patient had significant blood loss requiring transfusion. All patients were reversed and extubated. The mean duration of anesthesia was 2.45 (1:30-4) hours. The mean duration of hospital stay was 4.5 (3-10) days. Two patients had postoperative aphasia. **Conclusion:** Our data shows that with efficient perioperative anesthetic management the patients with Moyamoya disease can have a favorable outcome. Careful perioperative anesthetic management in Moyamoya disease is associated with good patient outcome.

17. Comparison of analgesic effect of infusion of low dose ketamine and dexmedetomidine on post-operative pain in spine surgery

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Background: The aim of the study was to compare the effects of infusion of Dexmedetomidine and low dose of Ketamine on postoperative pain in patients undergoing Spine Surgery. **Materials and Methods:** In a randomized, double-blind controlled trial, 66 ASA 1-2 patients undergoing elective lumbar and thoracic spine surgery were divided into three groups. Group K received Ketamine with midazolam bolus (0.25 mg/kg and 10 µg/kg) followed by infusion of a mixture of Ketamine and Midazolam (0.25 mg/kg/hr, 10 µg/kg). Group D received dexmedetomidine bolus (0.5 µg/kg) and infusion (0.3 µg/kg/hr). Group C received normal saline infusion at a rate of 3-8 ml/hr. All patients received test drug infusion for 24 hours and assessed till 48 hours postoperative period. Morphine 3 mg bolus was used as rescue analgesic and sedation was assessed by Modified Ramsay sedation scale. **Results:** Pain score differed significantly at 2, 6, 8, 12, 24 and 48 hours postoperatively with the lowest score in group K then D and maximum in group C. The pain scores were comparable between group K and D ($p = 0.620$). Rescue analgesic requirement was minimum in group K < D < C (P VALUE-.000). Sedation score was higher in group K. No significant difference in side effects was found in the

three groups. **Conclusion:** Ketamine and dexmedetomidine have comparable analgesic effects. Dexmedetomidine was associated with lower side effects (nausea, vomiting, dizziness, diplopia) than Ketamine, though the difference was not statistically significant. Dexmedetomidine or low dose Ketamine infusion can be used for postoperative analgesia in spine surgery.

18. Extubation failure in head-injured patients: An analysis of three-months data

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Background: Mechanical ventilation is the life sustaining modality, used until the patient is deemed fit for extubation and predicting extubation failure or re-intubation is one of the most challenging. The literature on predictors of successful extubation in head injured patients is very scarce. Hence, we planned to determine the weaning parameters which may predict re-intubation in these patients. **Materials and Methods:** In this observational study, we present three (3) months data of patients admitted to our neurocritical care unit (NCCU), who were extubated after achieving the standard criteria for tracheal extubation. Data on improvement of Glasgow Coma Scale (GCS) score, duration of mechanical ventilation, PaO_2/FiO_2 ratio, hemoglobin, tolerance to spontaneous breathing trials, adequate cough reflex, tracheal secretions and frequency of suctioning were recorded. Pre-extubation criteria such as associated co-morbidities, nature of injury, post-surgical complications (like hematoma, CSF leak, and electrolyte imbalance) were analyzed. **Results:** Seventy (70) patients who met the inclusion criteria were analyzed; of which 9 (12.8%) patients required re-intubation. Postoperative hydrocephalus, infarction, and impaired gag reflex were found to be the risk factors for re-intubation in these cases ($P < 0.05$). Most of these patients required percutaneous tracheostomy except two with ventilatory failure who were successfully extubated at the second attempt. **Conclusion:** Our preliminary study suggested that post-procedural neurosurgical complications and impaired gag reflex were the risk factors for re-intubation in head-injured patients. However, a larger study with big sample size may be needed to substantiate these findings.

19. Effect of hypertonic saline and mannitol on patients undergoing supratentorial tumor surgery

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