

regime. Dexmedetomidine infusion is both efficacious and safe in endonasal pituitary decompression surgery.

Keywords: dexmedetomidine, endonasal transsphenoidal resection, hemodynamic parameter

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A007 Prone Position Ventilation in a Patient of Severe ARDS with Raised Intracranial Pressure

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Introduction: Acute respiratory distress syndrome (ARDS) is common clinical problem in intensive care patients. It is characterized by high mortality. The mainstay of treatment is lung protective ventilation. Current evidence supports prone position ventilation in patients with ARDS having P/F ratio < 150. The only absolute contraindications stated for prone position ventilation are unstable vertebral fracture and unmonitored or significantly raised intracranial pressure.

Methodology/Description: A 27-year-old male was admitted after a road traffic accident with a left fronto-temporo-parietal subdural hemorrhage with diffuse cerebral edema and bilateral diffuse pulmonary contusion. He was intubated in view of poor neurological status. He underwent decompressive craniectomy for raised intracranial pressure (ICP). In due course, he was tracheostomized. Later on, he developed bilateral chest infiltrates with hypoxia. He was diagnosed as severe ARDS (PF ratio < 100). He was decided for prone position ventilation. He was ventilated for 20 hours in prone position and 4 hours supine position in a day. After turning supine, ABG was done after 4 hours. Next session of proning was determined if PF ratio still < 150. He was given prone ventilation sessions daily for 5 days. After fifth proning, his oxygenation improved and further he did not require prone ventilation. Subsequently, he was decannulated and discharged without any neurological sequelae.

Conclusion: Proning can be safely considered in neurotrauma patients with severe ARDS on case to case basis.

Keywords: acute respiratory distress syndrome, neurotrauma, prone position ventilation, intracranial pressure

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A008 Comparative Analysis of Effect of Pressure-Controlled and Volume-Controlled Ventilation on Respiratory Mechanics and Hemodynamics in Patients Undergoing Lumbar Spine Surgery in Prone Position

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Introduction: General anesthesia in prone position is related with increased airway pressure, decreased pulmonary, and thoracic compliance.

Aim: To compare pressure-controlled (PCV) and volume-controlled (VC) ventilation in patients undergoing lumbar spine surgery in prone position.

Methodology/Description: After ethics committee approval and written informed consent, a comparative randomized interventional study was conducted from March to June 2017. Patients were randomized in two groups of 30 each using sealed envelope method with 80% power and 97.5% confidence interval of the study. Patients of either sex, ASA grade I and II, age 20 to 65 years were included, while those with severe pulmonary disease and BMI > 30 kg/m² were excluded. Mean and standard deviation were calculated for quantitative data while proportions for qualitative data. For significance of difference, chi-squared test was used for proportions and unpaired *t*-test for mean. A *p*-value of < 0.05 was considered to be significant. Peak airway pressure (P-peak), PaO₂ levels, PaCO₂ levels, mean airway pressure, dynamic compliance, heart rate, systolic blood pressure, diastolic blood pressure, and mean arterial pressure were measured.

Results: Demographic parameters and perioperative hemodynamic values were comparable with no significant statistical difference. The P-peak levels were significantly higher in Group VC as compared with Group PC (*p* < 0.05). Dynamic compliance levels during prone position were higher in Group PC when compared with Group VC. Postoperative PaO₂ level was significantly higher in Group PC compared with Group VC.

Conclusion: According to our study, PCV mode is associated with lower P-peak levels during prone position and better oxygenation postoperatively. We concluded that PCV mode might be more appropriate in prone position during anesthesia.

Keywords: anesthesia, PCV, VC

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