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Comparison of effects of propofol infusion on the middle cerebral velocity between normal and tumor side in patients with intracranial space occupying lesions

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Introduction: Propofol is a common anesthetic agent used for induction of anesthesia as well as maintenance as well as total intravenous anesthesia in neurosurgical procedures. Propofol in common with intravenous agents reduces the cerebral blood flow and metabolism in normal brain. However, in areas with intracranial intraaxial tumors the cerebral vascular effects of propofol has not been well studied. The aim of the present study is to prove the hypothesis that cerebrovascular effects of propofol will be similar between tumor and non tumor hemispheres. **Methods:** The study was approved by institutional ethic committee. Adult patients with ASA grade 1 and 2 presenting with unilateral large intraaxial tumors (>5 cm) (Group 1) and spinal cord pathology (Group 2) were included. After standard monitoring and preoxygenation, anesthesia was induced with propofol infusion 10 mg/kg/hr. Bispectral index was targeted to 60. Transcranial doppler was used to assess the mean flow velocity in the middle cerebral artery at baseline and at BIS 60 in both hemispheres. Hemodynamic and CO2 levels were maintained constant. Statistical analysis consist test for mean and p<0.05 was considered significant. Results: Twenty four adults were included in the study. There was no change in the hemodynamic paramaters (SpO2 and EtCO₂) values between the two readings. The mean flow velocity at baseline in the control group was higher compared to the Group 1. There was a non-significant reduction in flow velocity in both the groups following propofol infusion. When compared to tumor hemisphere the non-tumor hemisphere had higher FV at baseline. However following the propofol infusion, the FV decreased significantly in both hemispheres, but no difference between hemispheres. Conclusion: Intravenous administration of propofol caused significant reduction in FV in both tumor and control groups. However the FV decreased more in non-tumor hemisphere compared to tumor hemisphere implying the maintenance of autoregulation or flow metabolism coupling. The mechanism needs to be elucidated.

ISNACC-S-42

Intraoperative conversion of nasal to oral intubation in a skull base surgery

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Introduction: The traditional method of nasal to oral tracheal tube change is simply removing the nasoendotracheal tube and replacing it with an oroendotracheal tube via direct laryngoscopy. We had encountered one such scenario where in there was a need for change of nasal ET to oral route during a skull base surgery. Case Summary: A 30 yr male presented with history of double vision and headache since 3 months with normal neurological exam. His MRI showed a large well defined lobulated extraxial mass noted in the spheno-clival region measuring 6.7 x 4.8x 3.0 cms, extending in to sphenoid sinus. A midfacial approach was planned with the plastic surgeon exposing the maxilla by lefort 2 incision, followed by transsphenoidal approach to the tumour by neurosurgeon. After consensus, nasal intubation was done to suite the midfacial approach but after the exposure neurosurgeon felt that it was suboptimal to resect the tumour by this aaproach. Hence transnasal transsphenoidal approach was thought to be a better option for optimal resection by surgeon. Hence he wanted a switch over the nasal endotracheal tube to the oral route. The patient was oxygenated with 100% O₂ for 5 minutes, throat pack was removed with the help of rigid endoscope and the initial assessment was done with the fiberoptic scope orally to see whether the glottic area is accessible. After confirming the accessibility ventilating bougie was inserted through the nasal endotracheal tube. Under the vision of FOB nasal ETT was withdrawn over the bougie till oropharynx. Then FOB was advanced in to trachea and another ETT was inserted over FOB orally and positon was visually confirmed. Nasal ETT and bougie were removed in total. Conclusion: In an unanticipated case this is the safer option because at any point of time if there was a problem then the nasal tube would have been reinserted on top of the bougie and also we were able to do the procedure without removing the pins and drapes.

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Intraoperative neurophysiological monitoring in patients undergoing scoliosis surgery

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Introduction: Prevention of neurological injury is of paramount importance in patients undergoing corrective surgery for scoliosis. In this study we describe the anaesthetic challenges and peri-operative management of patients operated for scoliosis with intraoperative