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Background: Haemodynamically stable induction, intraoperative course, rapid emergence after intracranial surgery is desirable for neurological assessment. Dexmedetomidine as an adjuvant has good perioperative haemodynamic control, no respiratory depression, reduces anaesthetic, analgesic requirement thereby improving outcome. This study was undertaken to compare desflurane and sevoflurane with dexmedetomidine for supratentorial tumour surgeries on intraoperative, immediate post-operative haemodynamics, extubation, post-operative recovery time. **Methodology:** 100 patients undergoing craniotomy for supratentorial tumour excision were randomly allocated in two groups 50 each. Induced by routine protocol, maintained on sevoflurane + dexmedetomidine in (S + D) group, desflurane + dexmedetomidine in (D + D) group along with oxygen, nitrous oxide and atracurium infusion. Dexmedetomidine loading dose (0.5 mcg/kg) for 10 min, maintenance (0.2–0.7 mcg/kg/h) titrated according to haemodynamics. Desflurane, sevoflurane maintained at 1.0 minimum alveolar concentration. Haemodynamics recorded every 10 min till 300 min and till 30 min after extubation. Time taken for eye-opening, orientation, extubation was noted. Recovery time was noted based on fast track criteria, Aldrete recovery score at 5th, 10th min in operating room and at 5th, 10th and 25th min in post-operative recovery room. The data were analysed using unpaired *t*-test and Student's *t*-test. **Results:** Total duration of anaesthesia, dose of dexmedetomidine was significantly higher in desflurane group. Effects on haemodynamics were similar. Time taken for eye-opening in minutes D + D = 8.22 ± 3.35 , S + D = 9.49 ± 3.43 , time for extubation in D + D = 11.28 ± 5.18 , S + D = 11.44 ± 3.99 , time for orientation in D + D = 9.72 ± 4.1 , S + D = 13.7 ± 4.61 , statistically significant with D + D. **Discussion:** Both groups were comparable with respect to haemodynamics. D + D combination had better recovery time. No adverse effects observed with either of combinations used. Clinical trials with larger sample size employing multiple parameters might be necessary to come out with policy guidelines. This study shows that D + D is safer, convenient anaesthetic for neurosurgery.

ISNACC-S-41

Dietary supplementation of potassium alone to correct hypokalaemia in the Neurointensive Care Unit: A comparative study with conventional method of management a preliminary report of an ongoing study

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Introduction: Hypokalaemia defined as serum potassium <3.5 meq/L is commonly encountered in the Intensive Care Unit (ICU). Treatment modalities include correction in the form of intravenous (IV) injection and oral syrup potassium chloride (KCl). **Aim:** To evaluate the efficacy of dietary supplementation of potassium in hypokalaemic patients in the ICU. **Methods:** Institutional Ethics Committee approval obtained for the conduct of the study. A total of 85 patients were included in the study from two ICUs. Forty-five patients in the Neurointensive Care Unit received only dietary supplementation and the remaining 40 patients included from general ICUs receiving conventional supplementation (both IV and oral in the form of syrup KCl) acted as control. Dietary correction was done calculating the deficit and normal daily requirement. Changes in the serum potassium levels were monitored at 24, 48 and 72 h and at day 7. Results were computed using Student's *t*-test. **Results:** The average baseline value of serum potassium was similar in both groups (control group - 3.24 meq/L and study group - 3.16 mEq/L). All patients in control group received IV KCl for first 24 h and 12 patients for 48 h in addition to the oral supplementation of calculated dose of KCl. None of the patients in the study group received IV KCl. The change in potassium levels from baseline to normal clinical levels (>3.5 meq/L) in both the groups was similar at 24 h and increased to 4.0 meq/L by day 4 and maintained till day 7. In control group, on oral syrup KCl, more patients experienced bad taste and nausea. None of the patients on only dietary supplementation had any side effects. **Conclusion:** Appropriately calculated dietary sources of potassium could be used in the correction of mild hypokalaemia, which is cost effective, physiological, convenient and safe.

ISNACC-S-42

Anaesthesia modifications for intraoperative evoked potential monitoring: Series of 100 cases

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Background: Monitors of electric function of nervous system have advancement in the field of neurosurgery. Monitoring goal is to determine integrity of the nervous system before potential irreversible damage during surgery in an anaesthetised patient. Baseline EPs were recorded as a pre-operative investigation. **Methodology:** We describe our clinical experience and practice pattern in a series of 100 cases conducted between June 2014 and June 2015. Inclusion – American Society of Anesthesiologists 11–111, Baseline EPs were recorded as a pre-operative investigation. Spinal cases mainly tumours. Cranial cases: Cerebellopontine (CP)

tumours, Foramen magnum decompression with fusion, skull base tumours with endoscopic approach, and brainstem lesions. Exclusion – Epilepsy, awake craniotomy, intracranial shunts and cardiac pacemakers. As a protocol muscle relaxant was restricted to Intubation and anaesthesia maintained by benzodiazepine + opioid + propofol infusions, inhalational desflurane minimum alveolar concentration <1, oxygen and nitrous oxide. Train of four was demonstrated after which EP recordings were started. Depth of anaesthesia measured with bispectral index (BIS) monitor. **Discussion:** In spine cases, somatosensory evoked potential (SSEP), motor evoked potential all limbs and sphincter were monitored. In cranial cases, SSEP, lower cranial nerves, facial nerve (direct stimulation) brainstem auditory evoked potential were monitored. In our series of 100 cases, spine SOL were 37, dethreading of cord were 10. Cranial: CP angle approach were 41 cases, Foramen magnum decompression = 3, brainstem lesions = 8, skull base endoscopic transclival approach = 1. Mean time to demonstrate tetralogy of fallot after use of relaxant was 42 min. BIS was maintained between 40 and 45. All patients were within physiological limits (blood pressure, temp, haemoglobin, fluid intake/output and arterial blood gases). **Conclusion:** EP monitoring is a physiological module; hence, the pharmacologically induced anaesthesia technique is a challenge to demonstrate EPs successfully. From a wide choice of anaesthetic agents available, anaesthesia technique was modified and applied with successful recordings of evoked potentials intraoperatively in our series.

ISNACC-C-01

Thiopentone the most effective drug in status epilepticus

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Background: Intractable status epilepticus not responding to convectional pharmacotherapy is a medical emergency. Deeper suppression of cortical activity documented electrocerebral silence and titrable length of time during which such electrocerebral silence can be maintained made thiopentone the ideal drug for initial management of status epilepticus. A long lasting anti epileptic drug regimen can be established during thiopentone induced burst suppression; which then can be tapered and discontinued with minimal chances of recurrence. **Case Summary:** We report a case of viral encephalitis in coma with status epilepticus who was also a known case of Duchene muscular dystrophy. He was also on ventilatory support. When all other antiepileptic drugs were ineffective, thiopentone sodium infusion was

started and the seizures were controlled. **Conclusion:** Thiopentone sodium is the oldest drug; yet, it is the most effective treatment in status epilepticus in Intensive Care Unit setting with mechanical ventilation. It reduces the relapse rate and avoids long-term morbidity and mortality with life-threatening emergency. We were successfully able to manage this case with thiopentone infusion.

ISNACC-C-02

Scalp block for drainage of cerebral abscess in a patient with tetralogy of fallot

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Background: Tetralogy of fallot (TOF) is the most common cyanotic congenital heart defect. Such patients are prone to frequent brain abscesses and account for 13–70% of all brain abscesses. The anaesthetic concerns in such patients are to maintain the systemic vascular resistance, reduce the pulmonary vascular resistance and prevent hyper cyanotic episodes intra-operatively.

Case Summary: A 21-year-old male was admitted in the Department of Neurosurgery at Sir JJ Group of Hospitals, Mumbai with chief complains of headache, vomiting since 2 months and multiple episodes of abnormal body movements since 2 days. The patient was a known case of TOF. On examination, the patient was conscious, oriented with a Glasgow coma scale of 15/15 and was vitally stable with central cyanosis, clubbing and a pan-systolic murmur. Doppler was suggestive of a ventricular septal defect of size 0.7 cm with left to right flow. Computed tomography brain revealed a large space occupying lesion (approximately 4.2 cm × 5.4 cm × 5.9 cm in size) in left temporal and left parietal region with a midline shift of approximately 13 mm toward right.

The patient was taken in the operation theatre, an 18-gauge intravenous line and appropriate monitors were attached. The patient was given a prophylactic dose of antibiotic, was pre-medicated with injection glycopyrrolate, injection ondansetron, injection midazolam with 100% oxygen, was sedated using injection fentanyl and injection ketamine. After