

classified according to the Glasgow Outcome Scale (GOS) as favourable (grades IV and V) and unfavourable (grades I-III). **Results:** During the study period, a total 195 patients of aneurysmal SAH underwent surgical clipping, and their data was analysed. Patients were categorized into two groups – Group R with IAR and Group N without IAR. Demographic profile was comparable between the groups. Mean age of our study patients was 47.85 yrs. There were a total of 32 IARs out of the total of 195 patients, representing an IAR rate of 16.41%. The blood loss was significantly more as also the amounts of crystalloid, colloid and blood administered in Group R as compared to Group N. In the postoperative period requirement of prolonged ventilation was 50% in group R as compared to 27.61% in group N. The incidence of post-operative haematoma was 21.88% and 5.52%, post-operative infarct was 50% and 20.25%, and vasospasm was 25% and 22.09% and in group R and N respectively. The incidence of sepsis was 25% and 19.63%, pneumonia 21.88% and 15.34%, renal failure 6.25% and 4.29% and tracheostomy was done in 43.75% and 20.25% in group R and N respectively. Poor neurological outcome (GOS  $\leq 3$ ) was observed in 64 (39.26%) of patients without IAR as opposed to 20 (62.50%) in patients with IAR. **Conclusion:** IAR has significant impact on neurological outcome, although there was no significant difference in mortality. Postoperative complications like prolonged duration of mechanical ventilation, and operative site haematoma, requirement of tracheostomy, decompressive craniectomy and hospital length of stay was more in patients who had IAR.

#### ISNACC-S-51

##### Water imbalance after neurosurgery: A case report

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**Introduction:** We describe a 30-year-old woman, who developed triphasic response after resection of craniopharyngeoma. **Case Summary:** A 30-year-old female with no co-morbidity and no endocrine abnormality was operated for craniopharyngeoma while leaving the pituitary stalk intact (according to the surgical notes). Postoperative she was conscious, cooperative without any neurodeficit. Soon, she started passing urine amounting to 300 ml/hr on an average. Urine osmolality was 136 mosm/kg and serum sodium 140 meq/l. Being normoglycaemic and not on any diuretics a diagnosis of central diabetes insipidus was made. She received Desmopressin nasal spray and was advised to drink water ad libitum. Gradually, as the urine output came down over the next day desmopressin was discontinued. On the third day sodium

was 125 meq/ml and Serum osmolality was 257 mosm/kg. SIADH was diagnosed and fluids were restricted. Her sodium continued to fall and she experienced seizure. At this juncture she was administered hypertonic saline. Over the next 24 hours urine output again started increasing showing a osmolality of 70 mosm/kg and sodium rising to 145 meq/l. She was put back on desmopressin nasal spray which controlled the urine output to some extent. However, as she continued to remain polyuric at discharge she was advised desmopressin tablets 0.1 bd with regular monitoring of sodium and water intake ad libitum. **Conclusion:** The pathophysiology of the triphasic response is well known. Predisposing factors may be the disease or surgery intraoperative CSF leak. Successful prevention requires an index of suspicion and proactive measures.

#### ISNACC-S-52

##### Incidence of trauma induced coagulopathy in patients with isolated traumatic brain injury: A preliminary study

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**Introduction:** Trauma induced coagulopathy (TIC) is an entity. But incidence and outcome of TIC in isolated head injury is not very clear. Therefore, we planned a preliminary prospective observational study to find out incidence of coagulopathy in patients with isolated moderate and severe head injury. **Methods:** Twenty patients having moderate to severe head injury were included in this study. Severity of head injury is rated according to GCS and Marshall scoring system. Coagulation profile of patients is noted at the time of admission to Trauma ICU and at 24, 48 and 72 hours after injury. **Results:** Out of 20 cases of head injury, in 8 cases (40%) at least 2 readings of INR were above 1.4 and PTI below 65%. Out of these 8 cases, 3 patients had GCS score 3, 4 patients had GCS score of 5 and 1 patient had GCS 9. Three out of these 8 patients had intraventricular hemorrhage while midline shift in CT was observed in all the 8 cases. **Conclusion:** Early identification and treatment of coagulopathy in brain injury patients may prevent secondary insult to brain decreasing morbidity and mortality. A prospective study with an adequate sample size population can identify the true incidence and outcome of patients with isolated head injury having TIC.

#### ISNACC-S-53

##### Cervical meningomyelocele repair in a 3 month old child with cleft palate: Anaesthetic risks and management

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**Introduction:** Cervical meningocele (MMC) is an extremely uncommon congenital spinal anomaly with incidence of 3-5% among spina bifida cystica. These babies also have associated multiple congenital anomalies. Anaesthesia for MMC poses a challenge to anaesthesiologist as one has to deal with infants, difficulty with positioning, airway problems and prone ventilation. **Case Summary:** A 3 month old female child, weighing 3 kg, came with complaint of swelling at the back of neck (3x4 cm) diagnosed as cervical meningocele with hydrocephalus. Patient also had complete cleft palate, imperforate anus and spina bifida. Patient was posted for MMC repair surgery. Patient was brought to the OT and baseline vitals were noted. Premedication in the form of inj glycopyrolate for anti-secretory effect and Inj ondansetron for anti-emetic effect was given. Induction was done with Inj thiopentone supplemented with inhalation induction with sevoflurane. To get ideal position for intubation the head was supported by an assistant to avoid pressure over swelling. The cleft in the palate was packed with a gauze piece. Intubation was done with endotracheal tube no 4. Air entry was confirmed and then inj atracurium was given for muscle relaxation. Throat was packed and tube was tied with a roller gauze. Patient was then given prone position and pressure points covered by soft gamzy rolls. Surgery lasted 2 hours. At the end, patient was reversed with inj neostigmine and inj glycopyrolate. Recovery was uneventful and patient was shifted to PICU for further management. **Conclusion:** Paediatric patients are prone for anaesthetic complications. Early repair of MMC is crucial to prevent sequale. Anaesthetic management in this case focuses on difficult airway management, positioning, fluid management and maintenance of temperature. The case is presented for its rarity and its successful management.

### ISNACC-S-54

#### Comparative study of postoperative pain following general anaesthesia with isoflurane and sevoflurane in spine surgery

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**Introduction:** Analgesic requirement following spine surgery is not addressed exhaustively, thus offering immense scope for continued research. Volatile anaesthetics have a biphasic effect on pain sensitivity;

they increase sensitivity to pain at low concentrations, and relieve pain at higher concentrations. This study was conducted to compare the differences in post-operative pain severity, duration and analgesic requirements with isoflurane and sevoflurane based anaesthetic regimens in patients undergoing elective spine surgery. We hypothesized that "General anaesthetics administered to provide anaesthesia will not affect postoperative pain and analgesic requirements independently, when analgesics are given in similar doses in the pre- and intra-operative periods." **Methods:** This was a prospective, observational study involving a total of 100 patients randomized into two groups - Group S (n = 50), who were maintained on sevoflurane and Group I (n = 50), who were maintained on isoflurane. Severity of pain of all patients was assessed preoperatively and upto 72 hours after extubation or till discharge using VAS scale and compared. **Results:** The mean preoperative VAS was comparable between the two groups (4.08 and 4.04,  $p = 0.889$ ) as well as upto 4 hours postoperatively. Beyond 4 hours up to 72 hours, the mean VAS was higher in Group S, the difference being statistically significant ( $p < 0.05$  at all times). The mean VAS scores were 5.76, 5.68, 4.28, 2.44, 1.52 in Group I and 6.56, 6.56, 5.36, 4.24, 3.96 in Group S at 6, 8, 24, 48, 72 hours respectively. 17 patients in Group I and 34 patients in Group S needed tramadol in addition to diclofenac postoperatively. **Conclusion:** Patients anaesthetised with isoflurane for elective spine surgery have significantly less pain and are pain-free earlier as compared to those anaesthetised with sevoflurane.

### ISNACC-S-55

#### A case series of 5 "awake" craniotomies with intraoperative electrocortical mapping

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**Introduction:** "Awake" craniotomy is standard for resection of intracranial tumours located near the eloquent areas of the cortex however functional mapping and stimulation in an awake patient is recent. **Case Summary:** We report a case series of 5 patients that underwent an "awake" craniotomy for resection of tumours in eloquent areas of the cortex. All patients were clinically evaluated, airway assessed, counselled, a rapport developed and optimised preoperatively. Functional MRI was done with activation mapped for finger, lip and tongue movement, word generation and counting paradigms. In the operation theatre, pre-oxygenation via nasal cannula was commenced and SpO<sub>2</sub>, EtCO<sub>2</sub>, NIBP, EKG, BIS monitoring initiated. A