standard induction and maintenance of anesthesia with routine monitoring was placed in sitting position, and TEE monitoring was instituted to screen for intraoperative air embolism. Osmotherapy was initiated with 20% mannitol. The mid-esophageal bicaval view interrogation revealed a dense shower of bubbles as observed in VAE. The surgical team was alerted about the possible air embolism, but they responded in negative as there were no exposed venous spaces. The shower continued despite flooding the surgical field with saline. Other evidences of VAE, such as a fall in tidal carbon dioxide ($ETCO_2$), tachycardia, hypotension, desaturation and an arterial blood gas sample proved to be negative for the same. The shower phenomenon continued and as we verified the intravenous (IV) infusion sets, connectors and the IV bottles to rule out iatrogenic sources of air, we stopped the mannitol infusion, after which there was a simultaneous disappearance of the bubble shower, which again reappeared on restarting the infusion. The diagnosis of 'mannitol shower' was confirmed when no shower was visualized on the TEE when mannitol infusion was restarted after replacing the regular IV set with the IV infusion set with a filter. **Conclusion:** In neurosurgical patients, the use of TEE aids in determining the hemodynamic and volume status, screening for structural pathologies of heart such as patent foramen ovale in addition to diagnosing critical events like air embolism. The neuroanesthesiologist should be prepared to differentiate this 'Mannitol shower' from actual VAE, as they have an identical presentation on TEE imaging.

ISNACC-S-27

Venous air embolism during removal of bony spur in a child of split cord malformation: A case report

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Introduction: Venous air embolism (VAE) is one of the potential serious complication in neurosurgical patients. The incidence of VAE ranges from 16% to 86% but its incidence was reported to be lower in pediatric neurosurgical patients than adults. The incidence of VAE is higher in surgeries done in sitting position and VAE is not a common complication in patients operated in prone position especially in pediatric population. **Case Summary:** In our case, one year old female child with split cord malformation type 1 with tethered cord was operated for tethered cord release and one episode of VAE occurred while removal of bony spur. The child went into impending cardio-pulmonary arrest which was resuscitated with cardio-pulmonary resuscitation in prone position. Rest of surgery and anaesthesia was uneventful. In postoperative period, patient was haemodynamically stable and discharged after 6 days. **Conclusion:** A special attention must be paid to detect and manage VAE in pediatric patients undergoing surgery for split cord malformation in prone position.

ISNACC-S-28

Time to emergence and factors affecting emergence in patinets with aneurysmal subarachnoid hemorrhage following craniotomy: A prospective observational study

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Introduction: Rapid emergence is deemed necessary in the patients undergoing neurosurgery in order to permit an early neurological evaluation. The incidence of the early extubation in neurosurgical patients who underwent intracranial surgery has been around 82-89 %. However, the pattern of emergence in patients undergoing neurosurgery following an acute aneurysmal sub-arachnoid hemorrhage has not yet been reported. **Methods:** The study is a prospective observational study conducted over a period of one and a half years. All the pre-operative (age, gender, weight, ASA, Hunt and Hess, WFNS, Fisher) and intra-operative data (Total anesthetic time, total surgical time, estimated total intraoperative blood loss, amount of intravenous fluids, urine output, temporary clipping time, IOR, temperature at the end of the surgery (≤36 or >36°C), anesthetic drugs, brain bulge) data was recorded and analysed to assess the factors effecting emergence in the pateints undergoing clipping. **Results:** A total of 67 patients, aged 46 years [IQR - 40-53], 33 male and 34 female were included in the study. 44, 16 and 2 patients were of WFNS grade I, II and III at the time of the admission respectively. The number of the pateints with admission CT Fisher grade I, II, III and IV were 6, 20, 25 and 16 respectively. At the time of the surgery 1 patient had GCS of 13 while 6 and 60 patients had a GCS of 14 and 15 respectively. The median time to emergence was 17 minutes (IQR 10-240 minutes). On univariate analysis the factors which were found to have significant co-relation with time to emergence were pre-operative GCS ($p = 0.002$, WFNS grade ($p = 0.005$, TC duration ($p = 0.03$) and the temperature at the end of the surgery ($p = 0.00$, In generalized linear model (γ- distribution), the temperature at the end of the surgery ($p = 0.0.00$), temporary clipping duration ($p = 0.008$), ASA grade ($p = 0.05$), Fischer grade ($p = 0.002$), duration of anaesthesia ($p = 0.042$) and GCS pre-induction ($p = 0.00$) had significant impact on the emergence time in pateints undergoing clipping for ruptured aneurysm. **Conclusion:** None of the pre-operative and intra-operative factors had any