

of O₂, surgical field flooded with saline. Central line (rt subclavian) was inserted and around 20 cc air was aspirated. Associated hypotension was managed with IV fluid boluses, vasopressor and ionotrops and shifted to neurosurgery ICU. **Conclusion:** Risk of venous air embolism during craniotomy requires high index of suspicion even in supine position though the incidence is very less.

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Anaesthetic management of drainage of brain abscess in a child with untreated TOF physiology: A case report

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Introduction: Cyanotic congenital heart disease accounts for 12.8 to 69.4% of all brain abscess with increased incidence in children. Right to left shunt along with hypoxia & hyperviscosity increases the propensity of seeding of microorganism in low perfusion area in brain.

Case Summary: Presenting a case of 8 year old female child planned for emergency drainage of brain abscess. The child was a case of TOF physiology diagnosed preoperatively. She presented with episode of seizure and altered sensorium since 15 days. Preoperatively, the patient was e4v5m6 with altered sensorium, Cyanosed. Baseline vitals were blood pressure of 106/78 mm of Hg, HR 82/min, spo2 86% on room air. A pansystolic murmur was present in precordial area with loud s2. Patient had left fronto parietal space occupying lesion? brain abscess on CT scan. On 2D ECHO, L- TGA with VSD with PS with PDA was diagnosed. Patient was planned for general anesthesia. After confirming NPO, all standard ASA monitors were attached with base line saturation 86% on room air. Child was preoxygenated for 3 mins. IV line 22 G was secured in right upper limb & preinduction 22 G canula inserted in left radial artery for invasive BP monitoring. Child was induced with inj fentanyl 40 mcg, thiopentone 100 mg and vecuronium 2 mg & airway secured with cuffed endotracheal tube size 5.5. Anesthesia was maintained with o₂ + air + isoflurane. SpO₂ was maintained to 95% intraoperatively and phenylephrine bolus was used to maintain systemic vascular resistance & minimize shunting. Intraoperative ABG showed 7.403/81.6/31.5/19.2/-4.4/96.2/146.3/3.53/43%. Patient was reversed & extubated. Postoperatively patient was E4V5M6 with vital HR 96/min, BP 112/65 mm of hg, spo2 88% on room air & shifted to ward. Patient was sent home after 1 weak without any neurological deficit & asked to follow up in cardiac OPD for heart disease. **Conclusion:** Children with undiagnosed heart disease may present directly to emergency for surgery & High suspicion of heart

disease should be kept in mind in patients presenting with brain abscess specially in children. Understanding pathophysiology of disease is very important for anesthetic management of such patient for neurosurgery.

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Cerebral hemodynamics and oxygenation during brain tumour resection: A comparative study between normal saline versus plasma-lyte A

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Introduction: During craniotomy, it is important to maintain adequate intravascular volume and at the same time to reduce ICP. Intraoperative fluids determine the serum osmolality which governs the fluid shift in the brain. Normal saline (NS) and Plasma-Lyte A (PA) have different compositions, osmolality, acidic activities, oxygen-carrying capacity and electrolyte constituents. These differences can affect the integrity of the delicate cerebral hemodynamics and metabolism. So, the aim of this study was to evaluate the effect of both fluids on cerebral hemodynamics and oxygenation during brain tumour resection. **Methods:** A prospective, double-blind, randomized trial was conducted in 110 adult patients scheduled for elective resection of the brain tumour. (NS group, n = 55 or PA group, n = 55). This study commenced from preinduction period till 24 hours following extubation or till the time patients started receiving oral fluids, whichever was earlier. Both the groups received the assigned fluid in the perioperative period. The following parameters were recorded: brain relaxation (at the time of bone flap elevation), cerebral metabolism variables (SjvO₂, AVDO₂, CERO₂, and eCMRO₂), arterial blood gases including serum electrolyte and serum osmolality (after induction, bone flap elevation, after tumor resection and 24 hours after surgery). **Results:** Both the group were comparable with respect demographic and clinical characteristics of tumors. Brain relaxation was similar in both the groups. (p = 0.51). The cerebral metabolic parameters were comparable in both the groups [SjvO₂ (p = 0.12), AVDO₂ (p = 0.40), CERO₂ (p = 0.06), and eCMRO₂ (p = 0.73)]. No significant difference in serum osmolality (p = 0.20), serum electrolyte, blood urea and serum creatinine were observed in both the groups. **Conclusion:** We conclude that both NS or PA appear to have similar physiological, metabolic and clinical profile in patients undergoing craniotomy for supratentorial tumors.