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ISNACC-S-01

Dexmedetomidine as anesthetic adjuvant in moyamoya patients for EDAS procedure: Our institutional experience

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Introduction: Moyamoya disease is an occlusive cerebrovascular disorder characterized by stenosis of the internal carotid arteries. The goal of surgical intervention in moyamoya disease is to establish collateral blood flow to revascularise previously ischemic areas of the brain, the most common procedure being encephalo-duro-arterio-synangiosis (EDAS). Anesthetic management of patients with moyamoya disease focuses on maintenance of adequate cerebral blood flow, normalization of intracranial pressure, and avoidance of both cerebral vasoconstriction and vasodilatation. Dexmedetomidine is a short-acting alpha 2-adrenoceptor agonist which decreases mean arterial presuure, heart rate and has reasonable analgesic effect hence can be used as an anesthetic adjuvant. The purpose of this article is to present a case series of five patients with moyamoya disease, and the effect of dexmedetomidine on their hemodynamic and recovery profile, which underwent EDAS procedure at our tertiary care hospital. **Case Summary:** Five diagnosed cases of moyamoya disease of pediatric and adult age group who underwent elective EDAS procedure were studied. The patients received an initial bolus dose of dexmedetomidine (1 mcg/kg) over 10 min, just before induction, followed by continuous infusion at the rate of 0.3 mcg/kg/hr during intraoperative period. All the patients were extubated in immediate postoperative period. Hemodynamic parameters, emergence response, and recovery time were noted. Smooth emergence with stable hemodynamic and reduced recovery time were observed with use of dexmedetomidine. **Conclusion:** Dexmedetomidine can be used as an effective anaesthetic adjuvant for stable hemodynamics and smooth emergence in patients with moyamoya disease undergoing EDAS procedure.

ISNACC-S-02

Central neurogenic hyperventilation with acute respiratory alkalosis and transient lactic acidosis following endoscopic third ventriculostomy in a child - A case report

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Introduction: Central neurogenic hyperventilation (CNH) is a rare but well documented complication after endoscopic third ventriculostomy (ETV) in adults. However, it is not well described in the pediatric population. CNH is attributed to irritation of the hypothalamus while irrigating the floor of the third ventricle with normal saline. **Case Summary**: 6 year old child developed CNH, acute respiratory alkalosis, intraoperative tachycardia and lactic acidosis following ETV for a pineal gland tumour causing obstructive hydrocephalus. CNH has been attributed to irritation of the hypothalamus while irrigating the floor of the third ventricle with normal saline. Treatment with sedation and oxygen via rebreathing mask resulted in normalization of symptoms and blood gas. **Conclusion**: CNH can occur in the pediatric population as well following ETV. A high index of suspicion is essential for early recognition. Measurement of ICP during ETV and use of alternative irrigation fluids such as lactated ringer's or artificial CSF may minimize occurrence.

ISNACC-S-03

Non-asleep fibreoptic intubation in a 5 year old child with C1/C2 subluxation - A case report

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Introduction: Spinal cord damage following cervical spine injury is a feared complication that can leave the