Case Description: A 19-year-old, male patient weighing 58 kg was scheduled for an elective D1–D2 laminectomy and excision of an arachnoid cyst under general anesthesia. Diagnosed with tricuspid atresia at birth, he underwent modified right Blalock–Taussig shunt as a neonate and a hemi-Fontan procedure at 8 months of age. He was NYHA class 2 until 1 month ago until he developed muscle weakness with grade-4 power. The ECHO done preoperatively showed functional hemi-Fontan's shunt, restrictive VSD 2 mm, small ASD, rudimentary RV, dilated LV, and a normal LV systolic function. After establishing standard ASA monitors, induction, and tracheal intubation were performed with intravenous fentanyl, ketamine, etomidate, and atracurium. Anesthesia was maintained with sevoflurane, MAC 0.5 and propofol infusion titrated with BIS. The patient was positioned carefully in prone with transcutaneous pacing pads and MEP was monitored intraoperatively to guide excision.

Conclusion: Understanding the Fontan physiology, the single ventricle physiology and pulmonary blood flow is critical to maintain hemodynamic stability. Anesthetic management, enabling intraoperative MEP monitoring, while maintaining cardiac function in the setting of altered cardiac physiology is essential for successful management.

A033 Craniotomy in a Case of Eisenmenger's Syndrome with Pulmonary Artery Hypertension: A Neuroanesthetic Challenge

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Background: The Eisenmenger syndrome is a form of cyanotic congenital heart disease not amenable to corrective surgery. It develops in patients with left-to-right shunts that results in concomitant pulmonary hypertension and right heart volume overload. The reported perioperative mortality of these critically ill patients is as high as 20 to 30%.

Case Description: An 18-year-old female patient presented to our institute for neurosurgical management of third ventricular colloid cyst. She was a diagnosed case of double-outlet right ventricle (DORV) with patent ductus arteriosus (*P*DA) with hypoplastic left aortic arch with pulmonary arterial hypertension (*P*AH) and Eisenmenger syndrome. She underwent right frontal craniotomy and tumor decompression under general anesthesia. She was managed with the hemodynamic goals to avoid any decrease in preload, decrease in systemic vascular resistance, increase in pulmonary vascular resistance, and decrease in myocardial contractility.

Conclusion: We would like to discuss the unique set of challenges encountered in perioperative management of these critically ill patients with reference to the present guidelines available and share how we managed this case.

A034 Anesthetic Management of a Patient of Pituitary Microadenoma with Low Ejection Fraction for Inferior Petrosal Sinus Sampling

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Background: Adrenocorticotropic hormone secreting pituitary adenoma is though quite rare yet associated with increased morbidity and mortality due to severe comorbidities associated with them. Inferior petrosal sinus sampling (IPSS) is the gold standard invasive procedure for the anatomical localization for Cushing's disease.

Case Description: We report two typical cases of Cushing's disease with low–ejection fraction who underwent IPSS and discuss the difficulties encountered and their management. Both of them were female patients of age 40 and 38 years, respectively. They presented with similar complaints of weight gain, facial hair, and body ache and after clinical examination and investigations, they were diagnosed to have Cushing's disease with pituitary microadenoma. Hypertension and diabetes mellitus were present with echo findings of ejection fraction of 30 and 35%, respectively. IPSS was performed under general anesthesia. Patients were hemodynamically stable throughout the procedure and we avoided any tachycardia, hypoxia, hypercarbia, hypothermia, and proper analgesia was ensured. Blood sugar levels were kept within normal limits.

Conclusion: Anesthetic implications due to Cushing's disease include hyperglycemia, hypertension, proximal muscle weakness, and skin thinning. Delicate skin and osteoporosis cause difficulty in venous access and increases risk of spontaneous fractures. A thorough understanding of preoperative assessment of airway, neurological, and endocrine status were helpful for our management.

A035 Craniotomy in Klippel–Trenaunay Syndrome: Concerns and Challenges

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Background: Klippel–Trenaunay Syndrome (KTS) is a rare congenital disorder characterized by cutaneous capillary malformations, soft tissue and bone hypertrophy, and venous varicosities. Multisystem involvement of this syndrome mandates adequate preparation and planning, with meticulous conduct of anesthesia, and surgery in these patients to achieve favorable outcomes.

Case Description: A 17-year-old girl presented for excision of right frontal calvarial hemangioma measuring 8 cm × 9 cm × 5 cm with intracranial extension and associated