

pressure at T30. Secondary outcome measures are peak airway pressure, cardiac index, C_{dyn}, PaO₂/FiO₂ ratio.

Results: Compared with VCV, PCV resulted in significant increase in mean airway pressure at T0 (7.15 [1.34] vs. 5.87 [0.99]); at T30 (7.92 [1.97] vs. 6.47 [0.64]) and at Teos (7.96 [1.61] vs. 6.6 [0.91], $p = 0.03$) with significant decrease in peak airway pressure and no significant change in cardiac index. Other respiratory, oxygenation, and hemodynamic parameters were similar.

Conclusion: Pressure-controlled mode in prone position on bolsters provides higher mean airway pressure with no difference in cardiac output in comparison to volume-controlled mode.

Keywords: pressure-controlled ventilation, volume-controlled ventilation, spine surgery

References

1. Jo YY, Kim JY, Kwak YL, Kim YB, Kwak HJ. The effect of pressure-controlled ventilation on pulmonary mechanics in the prone position during posterior lumbar spine surgery: a comparison with volume-controlled ventilation. *J Neurosurg Anesthesiol* 2012;24(1):14–18
2. Schonauer C, Bocchetti A, Barbagallo G, Albanese V, Moraci A. Positioning on surgical table. *Eur Spine J* 2004;13(Suppl 1): S50–S55

A054 Hypoventilation in a Patient with Cervicovertebral Anomaly during Sedation for MRI

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Introduction: Sedation for magnetic resonance imaging (MRI) in a patient with cervicovertebral anomaly can be challenging. We report a case where a patient with a craniovertebral junction anomaly was sedated for MRI and developed hypoventilation

Methodology/Description: A 42-year-old lady was diagnosed to have occipitalization of atlas with atlantoaxial subluxation, treated surgically with posterior occipital cervical fusion and skull traction at 16 years of age. She had improvement in upper and lower limb movement after surgery. A repeat MRI showed occipitalization of atlas with basilar invagination and severe compression of cervical cord. She currently presented with worsening of right upper limb weakness and gait instability due to sensory ataxia and was posted for an MRI. She refused MRI due to claustrophobia, hence was referred to us for MRI under sedation. Airway examination revealed a short neck with limited neck mobility with a breath holding time of more than 15 seconds. Echocardiographic study revealed a mild pulmonary stenosis but no regional wall motion abnormality. In view of the possibility of long term ventilation in case of intubation, we decided to sedate the patient with propofol. Toward the end of the bolus infusion, we noticed that the patient started hypoventilating with desaturation. This was managed by assisting the ventilation with 100% O₂, decreasing the propofol infusion

rate, adding low-dose ketamine to the infusion. And the MRI proceeded without any mishaps.

Conclusion: Addition of ketamine to propofol resulted in less incidence of hypoventilation than use of propofol alone for deep sedation.

Keywords: hypoventilation, propofol, sedation

References

1. De Oliveira GS Jr, Fitzgerald PC, Hansen N, Ahmad S, McCarthy RJ. The effect of ketamine on hypoventilation during deep sedation with midazolam and propofol: a randomised, double-blind, placebo-controlled trial. *Eur J Anaesthesiol* 2014;31(12):654–662
2. Taylor DM, Bell A, Holdgate A, et al. Risk factors for sedation-related events during procedural sedation in the emergency department. *Emerg Med Australas* 2011;23(4):466–473

A055 Anesthetic Management of Bilateral Middle Cerebral Artery Aneurysm Clipping in a Case of Hypertrophic Obstructive Cardiomyopathy

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Introduction: Hypertrophic obstructive cardiomyopathy (HOCM) is associated with sudden unexpected death due to acute left ventricular outflow tract (LVOT) obstruction or cardiac dysrhythmia. To our knowledge, there is no published report of case of coexisting HOCM and intracranial aneurysm. We describe successful anesthetic management of bilateral MCA aneurysm clipping in patient with HOCM diagnosed preoperatively.

Methodology/Description: A 44-year-old male patient complained of headache, vomiting, convulsions, loss of consciousness, weakness in left upper and lower limbs, slurred speech, and deviation of mouth to right side for 7 days. He had history of dyspnea grade II for 6 months. On examination, he was conscious, Glasgow Coma Scale-15 (GCS-15), with right facial palsy and power 4/5 on left-sided limbs. He was hypertensive, had cardiomegaly, ST-T changes on electrocardiogram, and diastolic dysfunction with normal systolic function on 2D ECHO. Resting LVOT gradient was 52 mm Hg. Difficult intubation was anticipated due to reduced mouth opening. CT angiography showed ruptured right MCA aneurysm (4.6 mm) and left unruptured MCA aneurysm (4.4 mm). The patient was anesthetized with midazolam, fentanyl 2 µg/kg, and etomidate 0.2 mg/kg. Esmolol was used to attenuate pressor response. Intubation was guided with bougie. Anesthesia was maintained on O₂ + N₂O + isoflurane (MAC < 1.0), propofol, and PNS-guided vecuronium infusion. Fentanyl and local infiltration were given for analgesia. Invasive BP, HR, CVP, PPV, temperature, and end-tidal CO₂ were monitored. Burst suppression with thiopentone was used during temporary occlusion. Patient remained hemodynamically stable and was extubated on table.