**PO10   Awake spine surgery in a lung hypoplasia patient: a case report**

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**Introduction**: Pulmonary hypoplasia is a rare anomaly in which gross morphology of the lung is preserved, but there is a decrease in number or size of airways, vessels, and alveoli. Consequently, there is an enlargement of the contralateral lung. This compensation often results in a more fragile tissue with abnormal blood flow. Therefore, anesthetic management for these patients often poses a challenge, especially if there are other comorbidities. Intermittent positive pressure ventilation (IPPV) increases the risk of barotrauma, pneumothorax, and interstitial emphysema on the unaffected side. As a result, a lung protective strategy with low tidal volume and increased respiratory rate are recommended. Additionally, airway resistance can be increased, requiring higher peak pressure to overcome resistance and prevent shunting and hypoxemia. Moreover, positioning of a patient intraoperatively is also an important factor to consider. Prone position improves pulmonary function but also, it is associated to elevate bleeding during spine surgery due to elevated venous pressure to the abdominal and spine vessels and decreased cardiac output due to it interferes with venous return through compression of inferior vena cave.

**Case report:**A 54-year-old male, ASA III, diagnosed with L4-S1 discal hernia, was scheduled for endoscopic lumbar decompression. His past medical history included previous open L4-L5 discectomy, hypertension, diabetes, dyslipidemia and obesity (BMI 41 kg/m2). He had been diagnosed with hypoplasia of the right lung in his teenage years, without other developmental defects. It had no bearing on everyday life tasks. After obtaining patient consent, a median subarachnoid block at L2-L3 level was performed with hyperbaric bupivacaine 0,5% 12,5 mg and sufentanyl 2,5 mcg. The patient was placed in prone position and the adequacy of block for surgery was tested before the incision, following sedation with propofol infusion. Oxygen was administered via nasal cannula at 2Lmin-1. Surgery lasted 130 minutes and was uneventful. The patient remained hemodynamically stable during the whole procedure and at the end of it, he was transferred to post-anesthesia care unit. Any adverse event was reported during recovering phase and the patient was safely discharged home in less than 24h post-procedure, with adequate pain control and sensory-motor block reversal. Overall, the patient expressed satisfaction with the anesthetic care he was given.

**Conclusion**: Regarding the side effects of general anesthesia and IPPV, neuraxial anesthesia has been explored as alternative to overcome the challenges faced with ventilating a patient with pulmonary hypoplasia. Moreover, in minimally invasive procedures for lower spine surgery, subarachnoid anesthesia has gained popularity due to improved patient comfort, allowing outpatient surgery and avoid general anesthesia complications.