1067710 - OCCULT CHIARI MALFORMATION: A RARE PRESENTATION

Saravanan P. Ankichetty¹, Saleh Khunein², Venkatraghavan Lashmi³

1. ANESTHESIA, TORONTO WESTERN HOSPITAL, Toronto, ON, Canada
2. ANESTHESIA, TORONTO WESTERN HOSPITAL, Toronto, ON, Canada
3. ANESTHESIA, TORONTO WESTERN HOSPITAL, Toronto, ON, Canada

Purpose: To present a case of occult Chiari type I malformation after subarachnoid block in a patient who underwent total knee replacement.

Clinical Features: Patient was consented. A 60 year old ASA III female was scheduled for left total knee replacement. Her past history was significant for morbid obesity, asthma and hypertension. Subarachnoid block using 27G Whitacre spinal needle was performed. She had an uneventful surgery. In the PACU, she was drowsy but arousable with stable hemodynamics. However, two hours later, she had intermittent apnoeic episodes and desaturation to 90% with 60% oxygen. Blood gas analysis showed respiratory acidosis. She was intubated and lungs were ventilated and transferred to ICU and weaned in ICU over next 36 hours. Post extubation, she had difficulty of swallowing, visual disturbance of left eye and syncope while coughing. Ophthalmologist, neurologist and otolaryngologist opinion was sought and could not find the exact cause. MRI showed Chiari I malformation with 17 mm cerebellar tonsillar herniation below the foramen magnum and compression of medulla without hydrocephalus. Her symptoms resolved over a week by conservative management and advised surgery. She had an uneventful posterior fossa decompression for Chiari I malformation after 6 months subsequently. Chiari I malformation is a maldevelopment of the hindbrain characterised by cerebellar tonsillar herniation of at least 3 to 5 mm below foramen magnum. These patients are usually symptomatic when herniation > 5mm and definitely >12 mm. There are case reports of successful epidural labour analgesia in patients with chiari malformation. There is also a report of occult chiari malformation presented as quadriplegia in a patient who had dural tear secondary to gun shot wound. Lumbar puncture and external lumbar drainage, lumbo-peritoneal shunts have precipitated tonsillar herniation and death in patients with known chiari malformation. Our patient presented late with symptoms of difficulty of swallowing despite herniation of 17 mm probably due to slow leak of CSF through puncture site and subsequent changes in cranio-caudal CSF flow dynamics.

Conclusion: This is the only report of occult chiari malformation with dysphagia, visual disturbance and syncope in the post operative period after spinal anesthesia.