AB097. SOH22ABS084. Anaesthetic management of body mass index (BMI) 47 patient with moyamoya syndrome for elective total knee arthroplasty

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Background: Moyamoya is a progressive arteriopathy of internal carotid artery with formation of collateral circulation which appears as "moyamoya" ("puff of smoke" in Japanese) on angiography. The incidence is predominant in Asian population reported as 0.35 per 100,000 annually. The typical symptoms include transient ischaemic attack (TIA), stroke, headaches and seizures.
Methods: We are presenting a case of 66 years old female patient of body mass index (BMI) 47 (height 162 cm, weight 122 kg) with moyamoya syndrome undergoing elective left total knee arthroplasty. She had past medical history of TIA's, migraines, hypertension, asthma and hypercholesterolaemia. She had no allergies and had previous uncomplicated laparoscopic cholecystectomy (1998) and hysterectomy (2003). Her medications included: Aspirin, Clopidogrel, Bisoprolol, Candesartan, Atorvastatin, Lansoprazole and Salbutamol.
Results: After establishing routine, invasive arterial blood pressure (ABP) monitoring and intravenous access with 18-G cannula, we performed ultrasound guided (USG) L4/L5 level subarachnoid block (SAB) with 2.6 mLs 0.5% bupivacaine and 100 mcg intrathecal morphine. We also performed USG adductor canal block with 20 mLs 0.25% levobupivacaine. Intraoperatively, she received Midazolam 2 mg IV, Tranexamic acid 1 g IV, Dexamethasone 8 mg IV, Cefuroxime 1.5 g IV, Propofol target controlled infusion, Harmann's 1,000 mLs and periarticular injection (by surgeon). We administered oxygen 6 L/min via facemask to keep SpO_2 ≥95% and Phenylephrine infusion to maintain mean arterial pressure (MAP) ≥75 mmHg.
Conclusions: We demonstrated a successful perioperative management of the high body mass index (BMI) and rare Moyamoya syndrome patient undergoing elective TKA by performing regional anaesthesia technique with titrated sedation and meticulous targeting of the MAP to maintain the end organs perfusion.
Keywords: Moyamoya syndrome anaesthesia; moyamoya syndrome neuraxial block; moyamoya syndrome perioperative management; moyamoya rare disease; moyamoya syndrome

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Footnote

Conflicts of Interest: The authors have no conflicts of interest to declare.

Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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