

27. Anesthetic management of a patient with Takotsubo syndrome undergoing hip fracture repair

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Introduction: Takotsubo syndrome (TTS) is a type of acute reversible left ventricular dysfunction in the form of acute catecholaminergic myocardial stunning in the absence of occlusive coronary artery, with considerable patient morbidity and mortality¹. The optimal anesthetic management of patients with TTS remains unclear. We would like to share our experience with a patient with TTS presenting for hip fracture repair.

Methods: An 80-year old female complained of dyspnea and retrosternal chest pain after subcapital hip fracture. Her diagnostic workup revealed elevated markers of myocardial necrosis and pathologic findings from transthoracic echocardiogram. Left ventriculography imaging along with an unremarkable coronariography was suggestive of TTS. After the initial control of acute myocardial crisis, the patient was scheduled for hip fracture repair, under spinal anesthesia. Having obtained patient's informed consent, we performed an ultrasound guided fascia iliaca compartment block (FICB) (30 mL ropivacaine 0.5%/8 mg dexamethasone). Twenty minutes after the FICB, the patient was placed in the lateral decubitus position and 3 mL levobupivacaine 0.5% were injected intrathecally. A bolus dose of dexmedetomidine 1 mcg/kg followed by a continuous intravenous infusion at a rate of 0.5 mcg/kg/hour was initiated 10 min before lumbar puncture. The infusion was reduced to 0.25 mcg/kg/hour 30 min later due to a drop in systolic blood pressure 40% below baseline, until the end of surgery.

Results: No complications occurred in the postoperative period. The patient walked on the second day and one week later she was discharged from hospital.

Conclusion: To our knowledge, there are no reports of intraoperative dexmedetomidine administration in TTS patients. Avoidance of adrenergic agonists and initiation of antiadrenergic therapy is suggestive by the pathogenesis of the syndrome [1]. Our main goal was the control of stress response [2, 3], performing FICB to facilitate perioperative analgesia and administering dexmedetomidine, an agent with sedative, anxiolytic and analgesic properties.

References

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