Anesthetic management of a patient with Takayasu’s arteritis undergoing total laparoscopic hysterectomy

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ABSTRACT

Takayasu’s arteritis (TA) is a rare, chronic progressive panendarteritis involving the aorta and its main branches, resulting in ischemia and persistent hypertension. Hypertension affects the anesthetic management where the main goal is to control the hemodynamics and prevent end organ damage. We present one case of diagnosed TA with hypertension and multiple cardiac morphological abnormalities posted for total laparoscopic hysterectomy.

Key words: Takayasu arteritis; Total laparoscopic hysterectomy

INTRODUCTION

Takayasu’s arteritis (TA) is a rare disease characterized by a focal stenotic process involving the aorta and the proximal segments of its main branches.¹ The affected vessel appears very thick walled, shortened, and rigid, with marked perivascular sclerosis and adhesion to surrounding tissues.² The disease is prominent in young women, has an onset before 40 years of age, with tuberculosis as a known culprit. This disease is also referred as pulseless disease, aortic arch syndrome, young female arteritis, and idiopathic aortitis.³ We present a case report of a diagnosed TA with hypertension and multiple cardiac morphological abnormalities posted for total laparoscopic hysterectomy, which was successfully managed by us by undertaking a precisely tailored induction and maintenance protocol for general anesthesia (GA). Patient was discharged home after full recovery.

CASE REPORT

A 44-year-old female (79 kg, 168 cm) with medical history of hypothyroidism (since 5 y), TA, hypertension (both since 2 y) as well as fibroid uterus and bilateral ovarian polyp, was posted for total laparoscopic hysterectomy in our hospital. Concomitant medications included azathioprine 50 mg, prednisolone 10 mg, amlodipine 10 mg, aspirin (Ecospirin™, Usv Ltd.) 75 mg and levothyroxine sodium (Eltroxin™, Concordia International) 50 µg.

She revealed a history of recurrent left upper arm pain and numbness starting 2 y back which was now controlled with above medications. There was
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In order to prevent end organ damage due to uncontrolled blood BP and because of cardiac involvement (left ventricular hypertrophy, mitral and tricuspid regurgitation) in this patient, the cardioprotective drugs were kept ready. Antihypertensive drugs and thyroid replacement were continued until the morning of surgery. Slow infusions of dexametomidine and lignocaine were initiated as a pre-induction sequence to facilitate a stress free induction and intubation. Magnesium was infused as premedication to prolong the neuromuscular blocking effects, blunting of stress response and decrease opioid requirements. BP was not allowed to go beyond 150 mmHg systolic and maximum recorded heart rate was 80/min. Postoperative pain relief is also very important to prevent stress related complications. Analgesics were used judiciously by local infiltration of port sites plus...
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paracetamol and tramadol IV. We deliberately avoided diclofenac for analgesia to prevent hypertension and renal complications.

CONCLUSION

Takayasu’s arteritis is a progressive disorder with varied clinical features indicative of vascular involvement, end organ damage making general anesthesia for laparoscopic surgery particularly challenging. Patients of Takayasu’s arteritis can be managed successfully under GA with pre-induction measures preventing stress response to intubation and minimizing the hemodynamic alterations associated with this disease during and after surgery.

Conflict of interest: Nil

Authors’ contribution: All authors took part in conduct of this case report and manuscript preparation.

REFERENCES