



UNRAVELING TAKAYASU ARTERITIS: INCIDENTAL DIAGNOSIS DURING EMERGENCY LAPAROTOMY FOR MESENTERIC VOLVULUS WITH ATYPICAL PRESENTATION

Anaesthesiology

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ABSTRACT

Takayasu's arteritis, known as "pulseless" disease, is a large-vessel inflammatory vasculitis primarily affecting the aorta and its branches¹. Its diverse manifestations pose diagnostic challenges. Our case involves a 56-year-old female presenting with acute abdomen leading to emergency laparotomy. Intraoperatively, suspicion arose of upper limb vascular abnormality due to discordant limb pulses, prompting postoperative CT aortogram revealing occlusion of the brachiocephalic trunk. This confirmed Takayasu's arteritis diagnosis. The case underscores the significance of recognizing clinical discordance, early diagnosis, and the importance of a multidisciplinary approach.

KEYWORDS

Takayasu arteritis, pulse disparity, abdominal pain, arterial occlusion, middle-aged patient

INTRODUCTION:

Takayasu arteritis, also known as "aortic arch syndrome," "young female arteritis," and "pulseless disease," is a rare, chronic, progressive large-vessel vasculitis of uncertain origin, affecting the aorta and its major branches.¹ The clinical presentation of Takayasu arteritis varies significantly, often leading to challenges in definitive and timely diagnosis. It is most commonly observed in young females during their second or third decades of life. Reports stress the importance of intraoperative monitoring devices, such as invasive arterial blood pressure and cerebral perfusion devices. In our case, the absence of preoperative diagnosis led to the use of invasive blood pressure monitoring, anticipating potential hemorrhage. This incidentally raised suspicion, later confirmed postoperatively. We present our experience with a Takayasu arteritis patient who underwent general anesthesia, discussing anesthetic considerations and postoperative ICU management.

Case Report:

A 56-year-old female patient, with a history of chronic smoking, presented with a two-day history of severe abdominal pain, decreased oral intake, and polyuria. Initial investigations were unremarkable. Following induction, her blood pressure dropped and did not respond to standard treatment, necessitating the initiation of a noradrenaline infusion. Difficulty in obtaining peripheral IV access led to the cannulation of the right internal jugular vein and placement of an arterial catheter in the lower limb due to feeble upper limb pulses. Despite achieving a normal mean arterial pressure (MAP) with noradrenaline infusion, there persisted a disparity between upper and lower limb pulses.

Post-surgery, the patient was transferred to the ICU with endotracheal intubation and mechanical ventilation. Further investigations including arterial blood gas analysis, urine osmolality, and echocardiography were performed to rule out disparities in blood pressure between upper and lower limb and to assess the underlying cause of polyuria, all of which returned normal. However, the discrepancy in pulses persisted, prompting a CT aortogram, which revealed occlusion of the brachiocephalic trunk, stenosis of the right common and internal carotid artery, and bilateral subclavian artery occlusion.

Based on these findings, the patient was diagnosed with Type 1 Takayasu arteritis or Giant cell arteritis. Given the complexity of the vascular involvement, the patient was referred to a vascular surgeon for further evaluation and management.

DISCUSSION:

Takayasu arteritis is a rare vasculitis characterized by chronic inflammation of large vessels, predominantly affecting the aorta and its major branches.² The disease commonly manifests in young to middle-aged individuals, typically females. However, this case highlights the atypical presentation of TA in a middle-aged patient with a history of smoking.

In this case, the presence of pulse disparity and intraoperative hemodynamic instability prompted further investigation, leading to the eventual diagnosis of TA. CT angiogram played a crucial role in delineating the extent of arterial involvement, guiding subsequent management and referral to a vascular surgeon.

CONCLUSION:

This case emphasizes the importance of considering vasculitis, particularly Takayasu arteritis or giant cell arteritis, in patients presenting with unexplained hemodynamic instability and pulse disparities, even in middle-aged individuals with a history of smoking. Early recognition and appropriate referral to specialists are crucial for timely management and optimal outcomes in such cases.

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