

A square peg in a round hole: a case of painless aortic dissection

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Aortic dissection (AD), with a prevalence of 5-30 cases per million people, is a rare but life-threatening condition that often relies on pattern recognition for diagnosis. Classical presentation involves acute presentation of severe chest pain; however, atypical symptoms can obscure timely recognition.

A 49-year-old man with a history of hypertension, ischemic heart disease, and previous lung empyema presented with chronic symptoms of reduced effort tolerance and left lower limb numbness during ambulation. On examination, absent pulses were noted in the left femoral artery and distal pulses. Point-of-care ultrasound (POCUS) revealed a dilated aortic root with intimal flaps in both the thoracic and abdominal aorta. computed tomography angiography confirmed the diagnosis of a Stanford A thoracoabdominal AD. Unfortunately, due to the complexity of the tear, the patient was managed conservatively.

This case underscores the critical role of clinical acumen paired with POCUS in identifying atypical presentations of AD. In emergency settings, where rapid diagnosis can be life-saving, POCUS serves as a powerful adjunct to clinical history and examination. Painless AD has a prevalence of 5%-15%, often mimicking stroke and congestive heart failure, while peripheral numbness in AD is only seen in 20% of cases. It is noted that patients presenting with painless AD have a higher mortality rate, especially in Stanford B AD. POCUS by emergency physicians (EPs) is reported to reduce time to diagnose AD and eliminate missed cases of AD. Literature suggests there is no statistical difference in mortality of AD patients in EP-led POCUS and non-EP-led POCUS groups. However, in the emergency department setting, beds are precious commodities; therefore, the benefit from rapid diagnosis allows the primary team to be established earlier, and admission can be expedited.

"When you hear hoofbeats, think horses, not zebras" is not applicable in this case. The vague presentation in this case highlights the importance of maintaining a high index of suspicion, considering atypical presentations while utilizing bedside diagnostic tools available to avoid potentially fatal misdiagnoses. AD is becoming easier to diagnose as POCUS becomes readily available; however, physicians should be aware of atypical presentations of AD for better clinical outcomes.

Keywords: Aortic dissection, cardiology, emergency medicine.

List of Abbreviations

AD	Aortic dissection
EP	Emergency physician
POCUS	Point of care ultrasound

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