

VIDEOS IN EMERGENCY MEDICINE

Cardiovascular

Cocaine user with chest pain

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Email: latha.ganti@ucf.edu**Funding and support:** By *JACEP Open* policy, all authors are required to disclose any and all commercial, financial, and other relationships in any way related to the subject of this article as per ICMJE conflict of interest guidelines (see www.icmje.org). The authors have stated that no such relationships exist.**KEYWORDS**

aortic dissection, bedside ultrasonography, emergency medicine, POCUS, Stanford type A

1 | PATIENT PRESENTATION

A 52-year-old male presented to the emergency department with a past medical history of active cocaine use and a chief complaint of chest pain that radiated to the back. Physical exam revealed a well-appearing, comfortable male with normal cardiac sounds, regular rate and rhythm, bilateral equal pulses in all four extremities, and intact motor and sensation in the extremities. A bedside ultrasound was performed and revealed an ascending aorta dissection (Figure 1 and Video 1). This was confirmed on intraoperative transesophageal echocardiogram that demonstrated the proximity of the aortic dissection flap to the aortic valve (Figure 2).

2 | DIAGNOSIS

2.1 | Aortic dissection

Computed tomography angiography (CTA) of the chest confirmed the diagnosis of Stanford A (type 1) aortic dissection extending from the supravalvular region to the level of the renal arteries. The patient was placed on nicardipine and esmolol drips and cardiothoracic surgery was emergently consulted. The patient underwent surgery where he had an intraoperative transesophageal echocardiogram, stenting of the aortic root, ascending aorta, and descending



FIGURE 1 Bedside transthoracic view of aorta demonstrating intimal flap of aortic dissection (arrow).

aorta. He recovered from his surgery and was ultimately discharged to home.

Aortic dissection is a relatively rare disease with an estimated global death rate of 2.78 per 100,000.¹ The diagnosis is typically made with CTA of the chest. Thoracic aortic dissection is classified into

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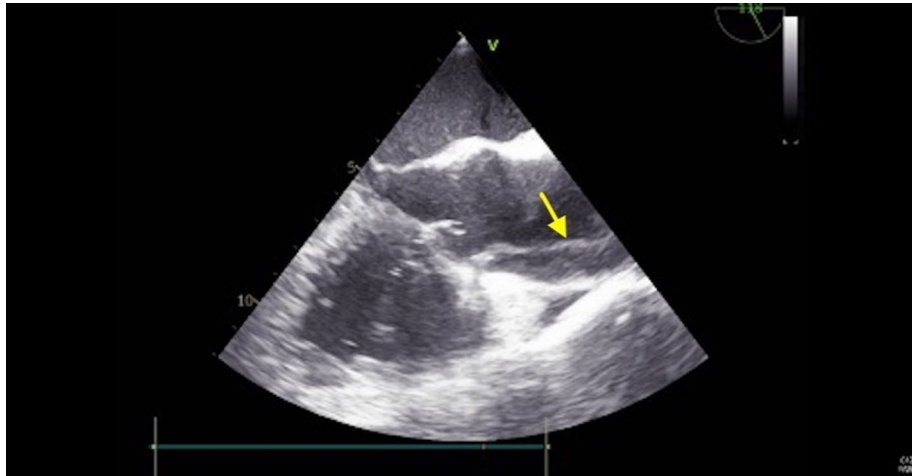
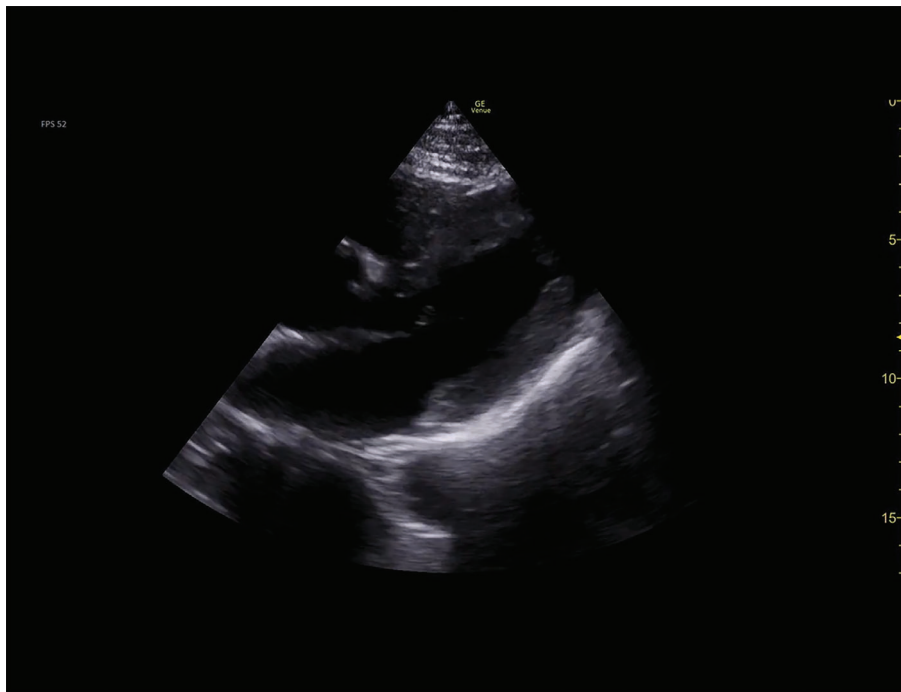


FIGURE 2 Intraoperative transesophageal echocardiogram showing proximity of aortic dissection flap to aortic valve (arrow).



VIDEO 1 Beside ultrasonography clip demonstrating intimal flap of aortic dissection.

two categories: Stanford type A that involves the proximal ascending aorta before the left subclavian and Stanford type B that involves the aorta only distal to the left subclavian.² The treatment of aortic dissection includes blood pressure and heart rate reduction. Early surgical consultation is important because type A aortic dissection is a true surgical emergency.

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