

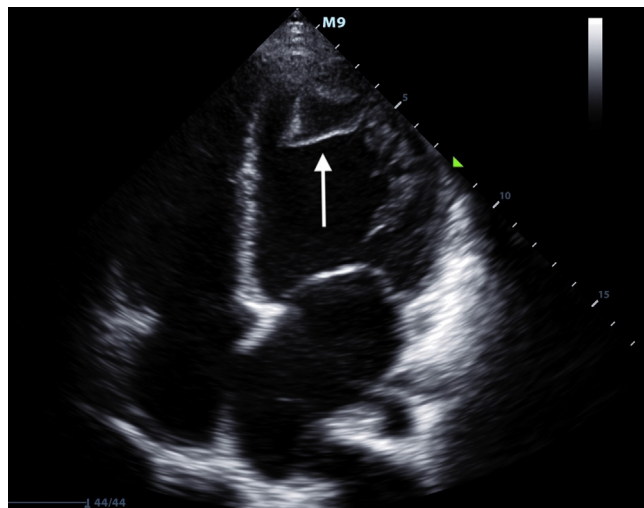


Figure 1. Sonographic apical cardiac view demonstrating a large hyperechoic thrombus protruding from the apex into the left ventricular chamber (arrow).



Figure 2. CT angiography of the whole aorta, demonstrating absence of flow in the abdominal aorta (infrarenal part) to the aortic bifurcation artery (arrow).

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A 25-year-old man with a 3-year history of dilated cardiomyopathy presented to the emergency department with acute onset of pain in both legs. He also reported vague abdominal pain 9 days before admission. Physical examination result was notable for cold, purplish skin on both legs but a nontender abdomen. The ECG demonstrated evidence of left ventricular hypertrophy with left atrial enlargement. Laboratory testing results were noteworthy for a serum creatinine level of 1.54 mg/dL and creatine phosphokinase level of 1,095 U/L. The emergency physician performed bedside ultrasonography (Figure 1, Videos E1 and E2, available online at <http://www.annemergmed.com>) and confirmed the diagnosis by computed tomography (CT) (Figure 2).

For the diagnosis and teaching points, see page 469.

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DIAGNOSIS:

Dilated cardiomyopathy complicated by left ventricular thrombus with systemic arterial embolism. CT angiography of the whole aorta demonstrated total occlusion of the infrarenal abdominal aorta to aortic bifurcation, along with the common iliac arteries and distal main renal artery leading to subtotal left renal infarction. Echocardiography confirmed the presence of a large left ventricular apical thrombus. The patient was treated with systemic heparinization and bilateral transfemoral thromboembolectomy and bilateral lower-leg fasciotomies. The patient was discharged home after 12 days with oral anticoagulation.

In patients with dilated cardiomyopathy, the incidence of left ventricular thrombus ranges from 13% to 50%.^{1,2} Left ventricular thrombus is most often diagnosed with echocardiography, although cardiac magnetic resonance imaging has greater sensitivity.³ Without systemic anticoagulation, the risk of arterial embolization has been estimated to be 29%.⁴ Warfarin is the most commonly used anticoagulant therapy for left ventricular thrombus, but heparin-based approaches have also been described.⁵

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