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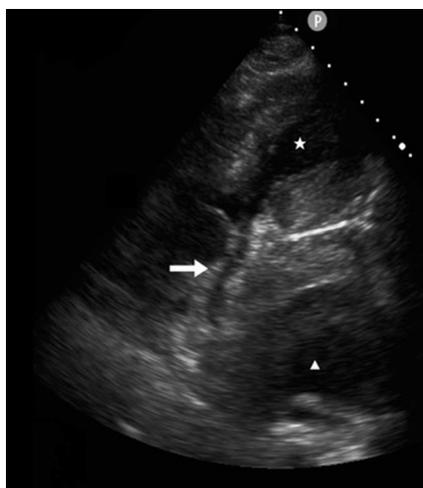
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Figure 1. Bedside echocardiography with apical 2-chamber view showing collapsed left atrium (arrow), a normal left ventricle (star), and the hematoma from the descending thoracic aorta (triangle).

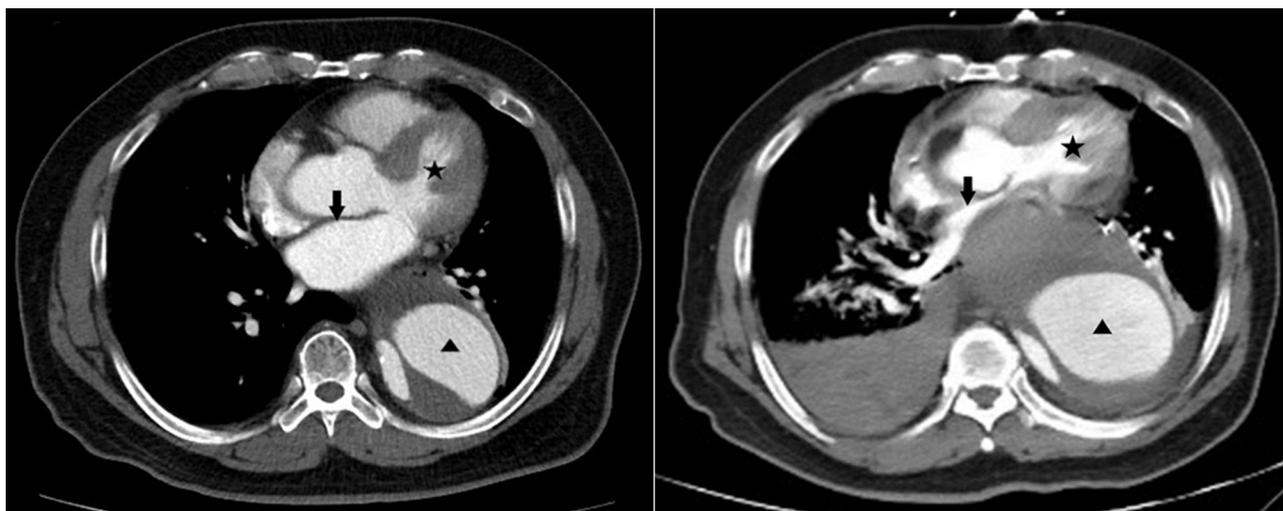


Figure 2. Contrast CT from 1 year ago (left panel). Contrast CT demonstrating hematoma from the descending thoracic aorta (triangle) and compression of the left atrium (arrow); note the uninvolved left ventricle (asterisk) (right panel).

[Ann Emerg Med. 2019;74:454.]

A 64-year-old man with hypertension and a previous uncomplicated medically managed type B thoracic aortic dissection presented to the emergency department with sudden onset of shortness of breath but no chest or abdominal pain. His pulse rate was 164 beats/min, blood pressure 145/100 mm Hg, respiratory rate 30 breaths/min, and saturation level 98% with oxygen at 10 L/min. Chest auscultation was noteworthy for bibasilar crackles, whereas the ECG showed only sinus tachycardia. Bedside ultrasonography demonstrated left atrial compression (Figure 1 and Video E1, available online at <http://www.annemergmed.com>), and this was confirmed by contrast computed tomography (CT) (Figure 2, right panel; the left panel is the corresponding image from 1 year ago.)

For the diagnosis and teaching points, see page 461.

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DIAGNOSIS:

Left atrial tamponade caused by rupture of the descending thoracic aortic dissection. The left atrium was externally compressed by the hematoma propagating from the dissection, a rare but typically fatal complication of aortic dissection.¹⁻³

Despite planned emergency surgical intervention, the patient experienced cardiac arrest and was unable to be resuscitated.

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