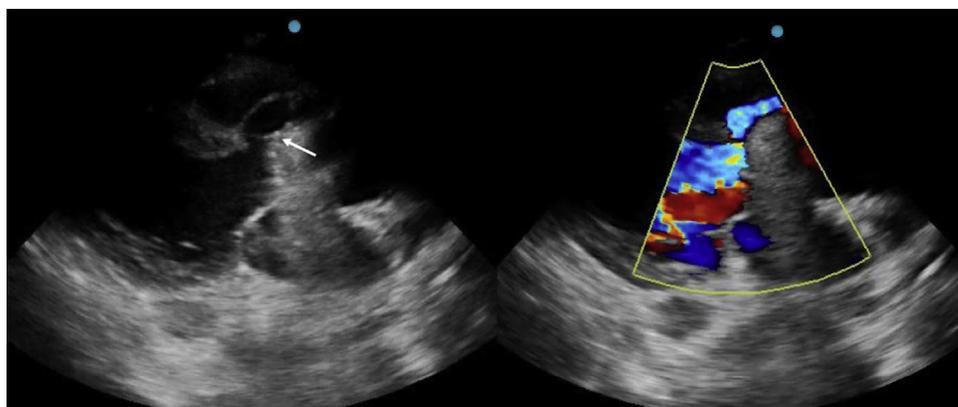


**Figure 1.** Compared with the chest radiogram (left panel) obtained 6 months ago, the one in the ED (right panel) showed a displaced prosthetic aortic valve (arrow). The pulmonary trunk was engorged and the lung fields were mildly congested (right panel).



**Figure 2.** Parasternal long-axis view of the 2-dimensional echocardiogram (left panel), showing prosthetic aortic valve dehiscence (arrow). Parasternal long-axis view of the color Doppler echocardiogram (right panel), showing severe aortic regurgitation with paravalvular leakage.

[Ann Emerg Med. 2019;74:e9-e10.]

A 39-year-old man with Behçet's disease, who received aortic valve replacement and ascending aorta graft interposition for chronic sclerosing valvulitis 7 months ago, presented to the emergency department (ED) with progressive dyspnea and orthopnea for 2 days. He had a grade 3/6 systolic murmur. The ECG showed a normal sinus rhythm with diffuse ST-segment depression. Compared with the chest radiogram (Figure 1, left panel) 6 months ago, his current chest radiogram (Figure 1, right panel) showed a displaced prosthetic aortic valve. The bedside 2-dimensional echocardiogram (Figure 2, left panel) and color Doppler imaging (Figure 2, right panel) showed severe aortic regurgitation with paravalvular leakage. Video recordings of the echocardiogram (Videos 1 and 2) were obtained.

*For the diagnosis and teaching points, see page e10.*

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## IMAGES IN EMERGENCY MEDICINE

*(continued from p. e9)***DIAGNOSIS:**

*Prosthetic aortic valve dehiscence.* The patient was admitted to the ICU soon after the diagnosis was obtained. However, during preparation for an emergency surgery, he experienced cardiac arrest because of a rapid deterioration of cardiogenic shock.

Prosthetic aortic valve dehiscence is a rare complication that is reported in approximately 1% of patients who have undergone aortic valve replacement.<sup>1</sup> Postoperative valve dehiscence in Behçet's disease is related to higher morbidity and mortality.<sup>2</sup> Evaluation of prosthetic valve dysfunction by echocardiography can be difficult because of acoustic shadows of the prosthetic valve.<sup>1</sup> A comparison of chest radiograms may reveal displacement of the prosthetic valve as a diagnostic clue. Cardiovascular specialists and cardiovascular surgeons should be consulted promptly for further management and potential surgical intervention.

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