

Ultrasound for Critical Care Physicians: Right Diagnosis, Wrong Place

The patient was a 76 year old man, with a history of a prosthetic aortic valve (aortic stenosis) and chronic myelogenous leukemia. He presented with fever and cough, and was found to have pneumonia with *Klebsiella pneumoniae* cultured from a BAL. However, he also had persistent *Enterococcus faecalis* bacteremia and a new 3/6 diastolic murmur.

An ultrasound of the heart was performed (Figures 1 and 2).

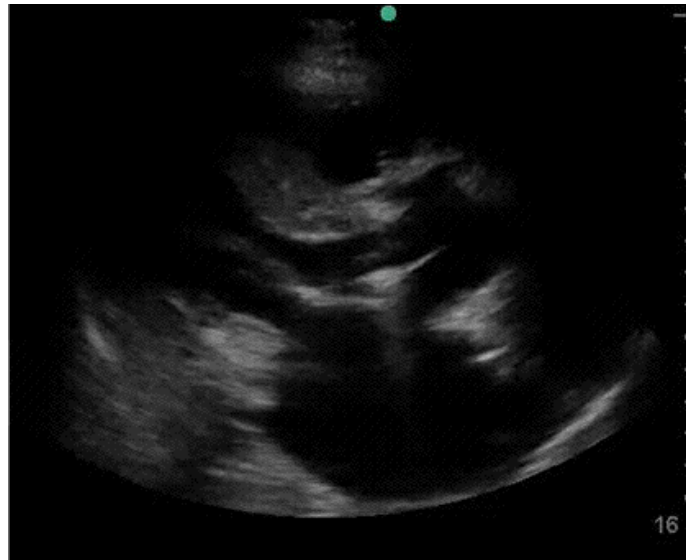


Figure 1. Parasternal long axis view of the heart.

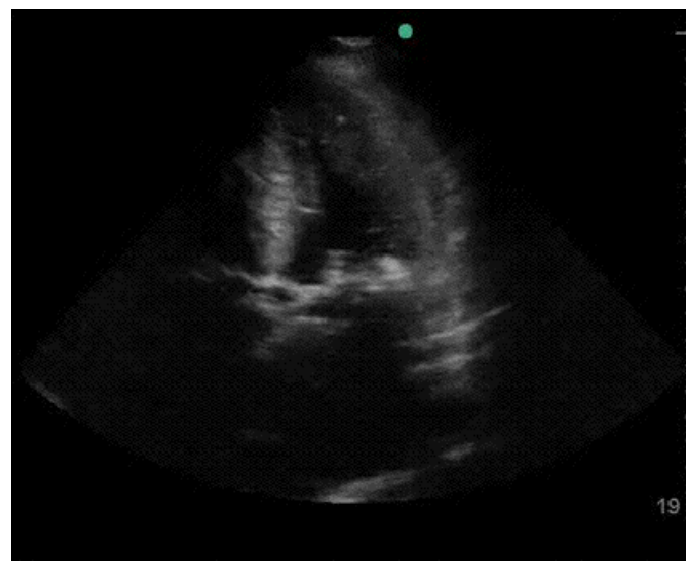


Figure 2. Four chamber view of the heart.

Which of the following is the **likely diagnosis**?

1. Aortic dissection
2. Aortic valve endocarditis
3. Displacement of the aortic valve
4. Mitral valve endocarditis
5. Tricuspid endocarditis

Correct!
4. Mitral valve endocarditis

The ultrasound of the heart shows a large vegetation in the area of the mitral valve (Figures 3 and 4).

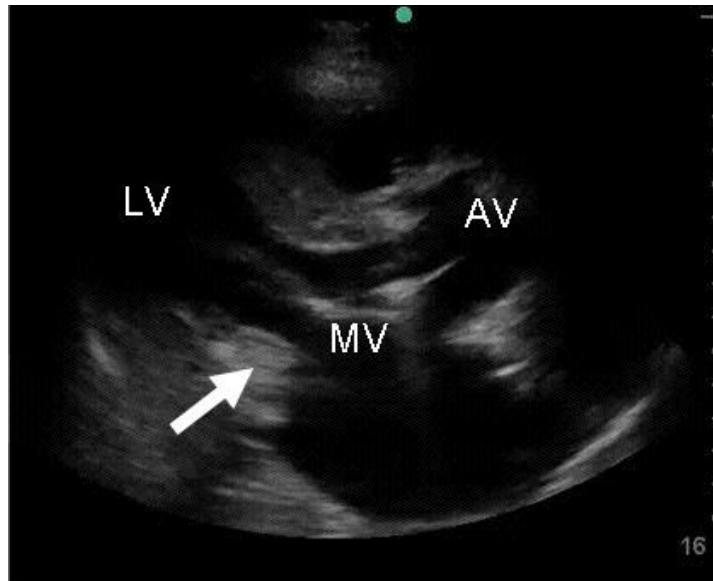


Figure 3. Parasternal long axis view shows a mass on the posterior leaflet of the mitral valve (arrow). The areas of the mitral valve (MV), left ventricle (LV), and the aortic valve (AV) are also labeled

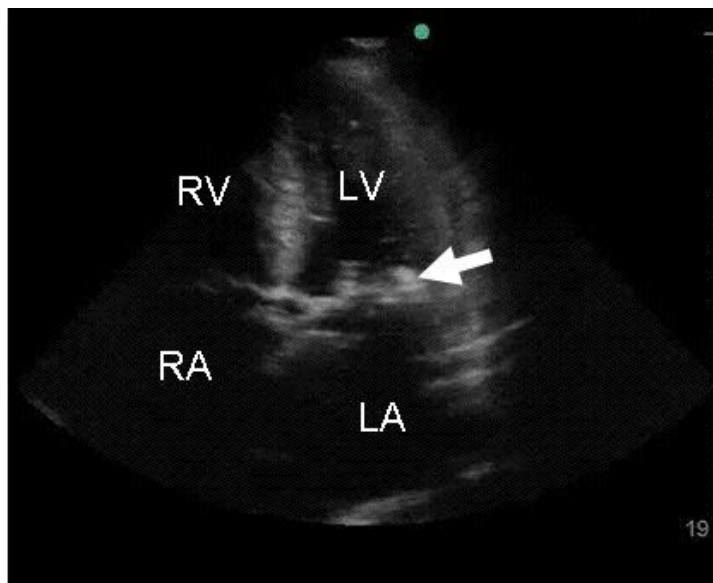


Figure 4. The four-chamber view shows thickening of the MV and a mobile vegetation on the posterior MV leaflet (arrow). The areas of the left atrium (LA), left ventricle (LV), right atrium (RA), and right ventricle are also labeled.

The patient was treated with piperacillin/tazobactam and gentamicin, but suffered multiple embolic strokes and multisystem organ failure, and did not survive.

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