

Acute mitral valve endocarditis complicated by complete atrioventricular block, junctional escape rhythm, and skin manifestations

A 19-year-old female patient with no history of heart disease was admitted to the hospital with fatigue, fever, and a rash on the hands and feet. The laboratory tests revealed white blood cells count of $13.4 \times 10^3/\mu\text{L}$ and a C-reactive protein 113 mg/L. The patient was referred to the cardiology department to determine the cause of fever. Osler nodules and janeway lesions were observed on the patient's hands and feet; the fingers were cyanotic due to peripheral embolisms (PE) (Fig. 1a, 1b). Complete atrioventricular block with junctional escape rhythm, which is a very rare electrocardiographic finding, was observed (Fig. 1c). Trans-thoracic echocardiography showed an approximately 14-mm-long vegetation on the anterior mitral leaflet (Fig. 1d). Transesophageal echocardiography showed a 15-mm-long fibrillary like vegetation on the A-3 mitral scallop (Fig. 2a, 2b). Moderate mitral regurgitation (Fig. 2c) and bicuspid aortic valve were also noted (Fig. 2d). A preliminary diagnosis of infective endocarditis (IE) was made based on the results of blood culture reports; antibiotic treatment was initiated. Blood cultures were positive for Methicillin-



Figure 1. (a) On the left hand, Osler nodules (red arrow) and Janeway lesions (black arrow) along with cyanosis in the fingers. (b) Osler nodules (red arrow) and Janeway lesions (black arrow) on the foot. (c) Complete atrioventricular block with junctional escape rhythm on electrocardiography. (d) Mobile and fibrillary like vegetation seen on the anterior leaflet of mitral valve on transthoracic echocardiography (white arrow)

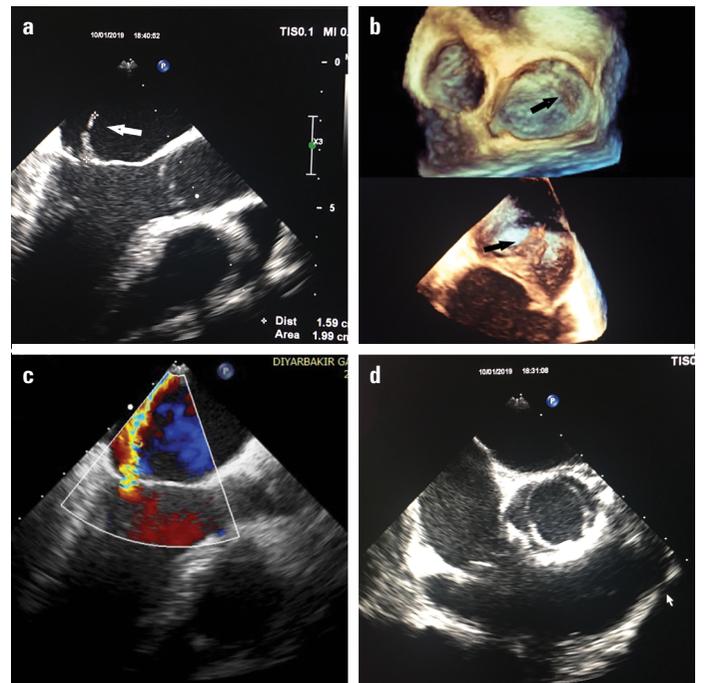


Figure 2. Transesophageal echocardiography. (a) 130 degree long axis view, fibrillary like vegetation seen on the anterior leaflet of the mitral valve with 15 mm diameter (white arrow). (b) Vegetation is seen on the A3 scallop of mitral valve in 3D images (black arrow). (c) 145-degree long axis view of moderate mitral valve regurgitation. (d) 45-degree short axis view of the bicuspid aortic valve

sensitive *Staphylococcus aureus*. The patient was transferred for surgery due to rapid progression, large vegetation, and PE. Bioprosthesis mitral valve replacement was performed; however, the patient died due to prosthetic valve dehiscence and pulmonary edema 10 days after discharge.

IE is a disease that should be diagnosed rapidly and evaluated with a multidisciplinary approach. Early surgery should be considered in patients at high risk for PE and effective antibiotic therapy should be initiated immediately. Additionally, the patients should be closely monitored hemodynamically for arrhythmias, such as atrioventricular block.

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