

Multimodality Imaging to Exclude Right Atrial Thrombus Post Mitral and Tricuspid Valve Surgery

Mitral ve Triküspit Kapak Cerrahisi Sonrası Sağ Atriyal Trombüsü Dışlamak için Multimodalite Görüntüleme

A 66-year-old female with severe rheumatic mitral stenosis and chronic atrial fibrillation was admitted for elective cardiac surgery. The preoperative transesophageal echocardiogram showed normal biventricular systolic function, severe mitral stenosis, moderate tricuspid regurgitation, a thrombus in the left atrial appendage, and moderate pulmonary hypertension with a pulmonary artery systolic pressure of 50–55 mmHg (Figure 1A–D). The patient underwent bioprosthetic mitral valve replacement with a 27 mm Magna Mitral Ease (Edwards, Irvine, CA), tricuspid valve annuloplasty with a Physio Tricuspid annuloplasty ring (Edwards, Irvine, CA), and ligation of the left atrium appendage. The patient had an uneventful recovery and was promptly moved to the ward. A routine post-operative transthoracic echocardiogram (TTE) six days later demonstrated normal left ventricular systolic function, left atrial dilatation, and impaired longitudinal right ventricular systolic function. The TTE also showed a 28 mm x 40 mm non-mobile structure, which was reported as a possible

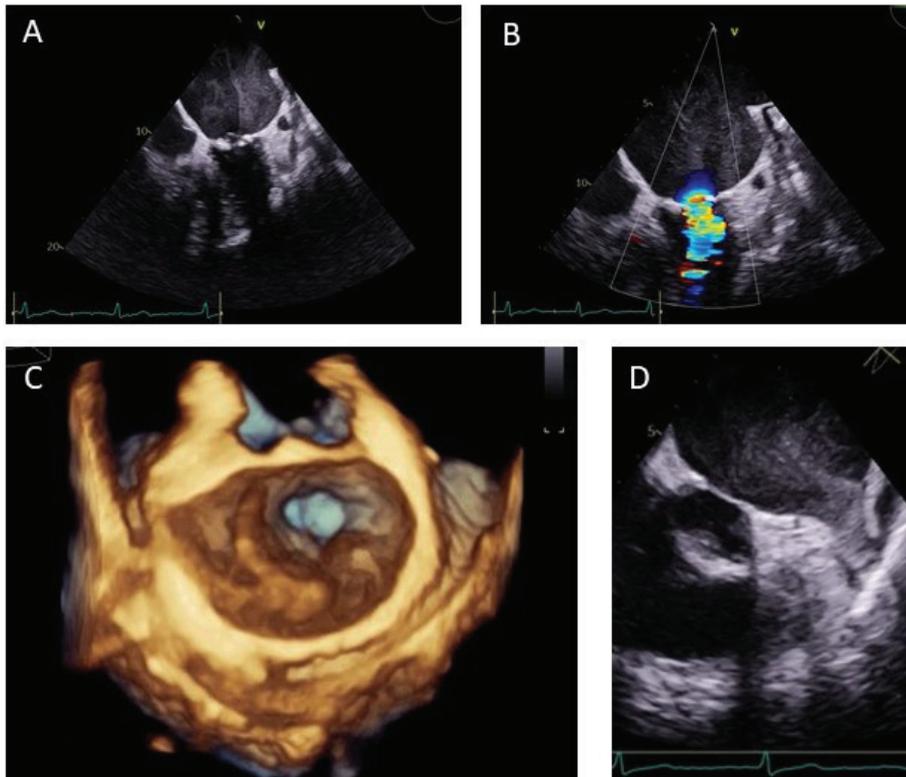


Figure 1. (A) Preoperative transesophageal echocardiogram, 4-chamber view in mid-diastole, showing severe mitral stenosis and spontaneous contrast in the left atrium. (B) 4-chamber view in mid-diastole with color Doppler, showing severe mitral stenosis with a proximal isovelocity surface area (PISA) on the atrial side of the valve. (C) 3D zoom mode, surgical view of the mitral valve in diastole, showing severe stenosis. (D) Thrombus in the left atrial appendage.

CASE IMAGE OLGU GÖRÜNTÜSÜ

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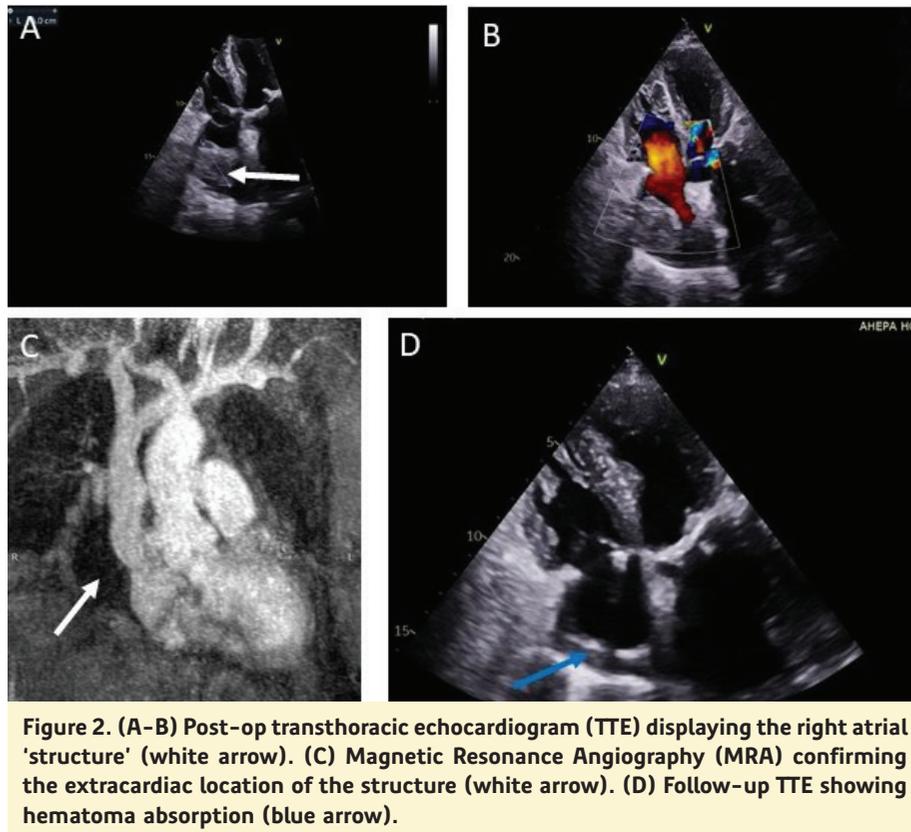
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thrombus in the right atrium (Figure 2 A-B). The inferior vena cava was not visible in the subxiphoid view to assess right atrial pressure; however, there were no clinical signs of high right atrial pressures, such as raised jugular venous pressure (JVP) and peripheral edema. Given that the patient was on a therapeutic anticoagulation dose and considering the echocardiographic characteristics of the structure and the absence of spontaneous contrast in the right atrium, we decided to further investigate this with a cardiac magnetic resonance (CMR). This confirmed the extracardiac nature of the structure, which was characterized as a possible hematoma behind the right atrium (Figure 2C). The patient was discharged four days later. One month later, she was in good clinical condition, and a TTE was consistent with the pre-discharge one. A repeat TTE six months later demonstrated almost complete absorption of the hematoma (Figure 2D).

The patient was clinically stable and was discharged from the outpatient clinic.

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