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IMAGE IN CARDIOLOGY

Primary cardiac undifferentiated pleomorphic sarcoma

Sarcoma primário cardíaco pleomórfico indiferenciado

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A 36-year-old male patient was admitted to our hospital due to dysarthria and left-sided hemiparesis. Past medical history included a twice resected cardiac undifferentiated pleomorphic sarcoma of the left atrium.

Brain computed tomography had negative findings. However, brain magnetic resonance angiography demonstrated a new-onset right frontoparietal infarct.

Transthoracic echocardiography (TTE) revealed multiple, mobile, echogenic masses with irregular surface in the left atrium, invading the mitral valve and left ventricle. The masses occupied the majority of the left atrial cavity and appeared to infiltrate the anterior and posterior wall of the left atrium. A broad-based mass adhering to the posterior wall of the left atrium was partially prolapsing into the left ventricle through the mitral valve during diastole, obstructing mitral inflow, with a mean transmitral gradient of 16 mmHg.

The echogenic mass lesions were also attached to the free edge and the atrial and ventricular surfaces of the mitral valve leaflets. The mitral valve subvalvular apparatus was also affected. In addition, infiltration of the ventricular surface of the aortic valve was observed. There was no associated pericardial effusion (Figures 1-4).

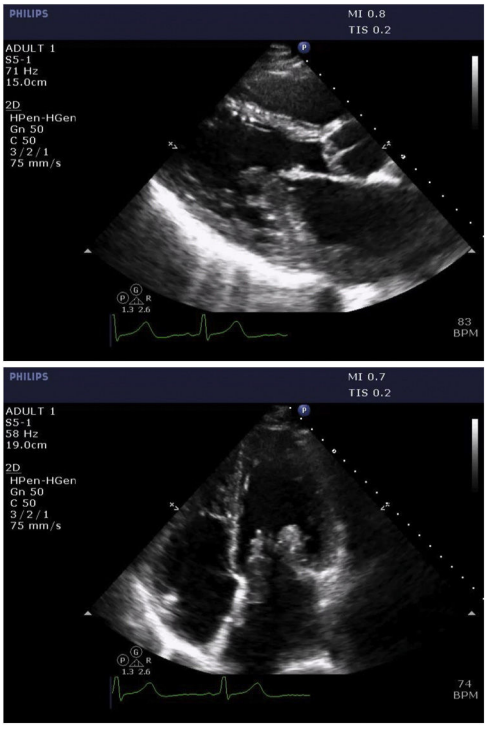

Figure 1 and 2 Parasternal long-axis view (1) and apical 4-chamber view (2) on transthoracic echocardiography showing multiple, mobile, echogenic masses in the left atrium invading the left ventricle and mitral and aortic valves.

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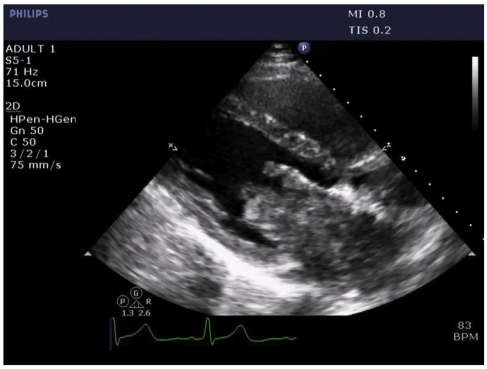

Figure 3 Parasternal long-axis view on transthoracic echocardiography showing a broad-based mass adhering to the posterior wall of the left atrium and partially prolapsing into the left ventricle.

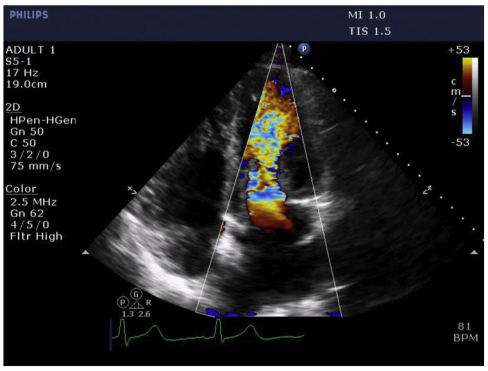

Figure 4 Color Doppler in apical 4-chamber view on transthoracic echocardiography displaying increased forward blood flow through the mitral valve during diastole, indicating mitral inflow obstruction caused by the mass.

A recurrence of undifferentiated pleomorphic sarcoma was considered based on the patient's echocardiographic findings and medical history. The underlying cause for the occurrence of stroke was thought to be sarcoma embolization.

The patient was referred for consideration of cardiac surgery. However, he was deemed inoperable due to extensive infiltration of cardiac tissue and involvement of extracardiac structures, as there was evidence of tumor penetration into the pulmonary veins.

Conflicts of interest

The authors have no conflicts of interest to declare.