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Multimodal Imaging of a Huge Atrial Myxoma Accompanied by Valvular Regurgitation

Valvüler Regürjitasyona Eşlik Eden Büyük Atriyal Miksomanın Multimodal Görüntülemesi

CASE IMAGE
OLGU GÖRÜNTÜSÜ

Cardiac myxomas account for 30–50% of all primary tumors of the heart. Approximately 75–83% originate from the left atrium, 13–18% from the right atrium, and the remainder from the ventricles, both atria (biatrial), or multiple locations. A 44-year-old female patient with a congenital speech disorder was admitted to our clinic with symptoms of dyspnea and palpitations. She had no history of cardiac disease. Transthoracic echocardiography (TTE) revealed a giant cardiac mass measuring approximately 80 × 60 mm, involving both atria but predominantly located in the left atrium (Videos 1 and 2). Transesophageal echocardiography (TEE) confirmed the presence of a large mass within both atria (Figure 1). Due to dense cystic areas observed on TEE, a hydatid cyst was initially suspected. The mass appeared round, stalkless, and contained cystic regions. Severe mitral and tricuspid regurgitation was noted, attributed to annular dilatation and leaflet distortion (Videos 3 and 4). Computed tomography angiography (CTA) revealed a mass with minimal calcific areas, raising suspicion for hemangioma or myxoma, while coronary arteries appeared normal. Cardiac magnetic resonance imaging (MRI) was performed, and in a four-chamber early perfusion image, the lesion displayed T1-weighted (T1W) spontaneously hyperintense cystic components with nodular enhancement. The solid

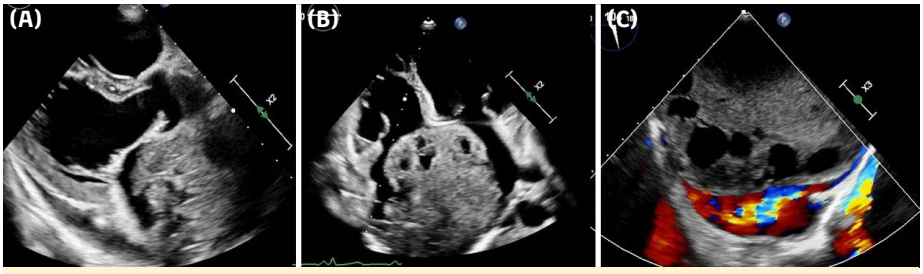

Figure 1. (A) Parasternal long-axis view and (B) apical four-chamber transthoracic echocardiography view showing a large myxoma. (C) Bicaval color-Doppler view from transesophageal echocardiography (TEE) indicating the myxoma predominantly located in the left atrium.

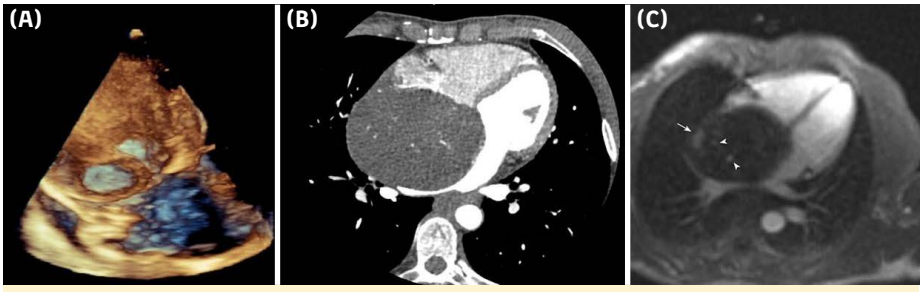

Figure 2. (A) Four-chamber, three-dimensional transesophageal echocardiography (TEE) view of the myxoma. (B) Thoracic computed tomography (CT) image showing a myxoma with internal calcifications. (C) Cardiac magnetic resonance imaging (MRI), four-chamber early perfusion image showing T1-weighted (T1W) spontaneously hyperintense cystic components (arrow) and nodular enhancement (arrowhead).

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portion of the lesion showed no significant enhancement (Figure 2). The patient underwent surgical resection, and a mass approximately 10 cm in diameter was removed. Mitral and tricuspid regurgitation persisted following myxoma excision, necessitating mechanical valve replacement for both mitral and tricuspid valves. Histological examination revealed a characteristic myxoid matrix containing stellate or spindle-shaped cells within a mucopolysaccharide-rich stroma, showing low mitotic activity and occasional calcification. Immunohistochemistry was positive for the endothelial markers CD31 and CD34. The patient had an uneventful postoperative recovery and continues with clinical follow-up.

Ethics Committee Approval: This is a single case report, and therefore ethics committee approval was not required in accordance with institutional policies.

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Video 1. Mid-esophageal four-chamber transthoracic echocardiography (TTE) video demonstrating a large myxoma.

Video 2. Mid-esophageal four-chamber color-Doppler transthoracic echocardiography (TTE) video showing the myxoma along with severe mitral and tricuspid regurgitation.

Video 3. Two-dimensional transesophageal echocardiography (2D TEE) four-chamber view showing the myxoma.

Video 4. Three-dimensional transesophageal echocardiography (3D) TEE video of the myxoma.