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Differential Diagnosis of a Left Atrial Mass – Role of 3D Transesophageal Echocardiography

Christos A. Michalakeas, MD, Constantinos H. Papadopoulos, MD

2nd Department of Cardiology, Attikon University Hospital, Athens, Greece

CASE PRESENTATION

KEY WORDS: atrial mass;
three dimensional echocardiography

An 81-year-old female patient was admitted to our clinic due to an episode of loss of consciousness. The patient had a history of type 2 diabetes mellitus, permanent atrial fibrillation and peripheral vascular disease. Her medication included antidiabetic treatment, digitalis, furosemide and propafenone. On admission the clinical examination revealed bradycardia, complete arrhythmia with normal heart sounds, a soft systolic apical murmur consistent with mild mitral regurgitation and no signs of pulmonary congestion. The ECG showed atrial fibrillation with periods of bradycardia on the 24-hour ECG monitoring. An increased cardiothoracic index was noted by chest X-ray. Laboratory investigation revealed impaired renal function, hyperkalemia, normal thyroid function tests and normal prothrombin time.

A transthoracic echocardiographic examination was performed, showing a left ventricle of normal dimensions with a preserved systolic function (ejection fraction-EF=50%) and a mass inside the left atrium. Intravenous administration of contrast agent did not reveal perfusion in the mass. Three-dimensional transesophageal echocardiography provided additional information about the origin, nature and mobility of the mass (Figure 1).

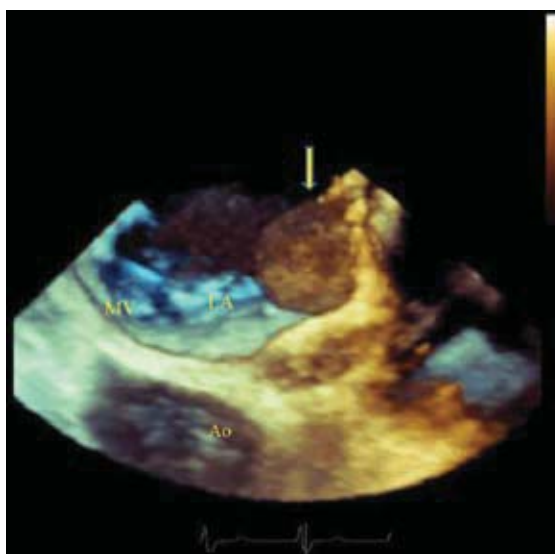


FIGURE 1. Live 3D Echo. Large, immobile echogenic mass (22 x 30 x 15 mm) (yellow arrow) originating from the upper anterior wall of the left atrium and extending into the left atrial cavity. LA: left atrium, MV: mitral valve, Ao: aorta.

Correspondence to:
Constantinos H. Papadopoulos, MD
E-mail: papcost@gmail.com