Left atrial myxoma with coronary artery disease

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DESCRIPTION

A hypertensive man in his 80s presented to the emergency department with a fall preceded by a 'funny turn' and syncope. Examination findings were consistent with fracture of the left neck of femur. Laboratory investigations, including ECG, were normal. He was discharged after total left hip arthroplasty. During outpatient evaluation for syncope and dizziness, his 24-hour Holter examination showed predominantly sinus rhythm with episodes of first-degree atrioventricular block, ventricular ectopy <1%. Transthoracic echocardiogram showed a large, elongated, mobile left atrial mass with no clear attachment, measuring 4.8 cm × 1.6 cm and a dilated left atrium. (figure 1). Transoesophageal echocardiogram revealed a 4.7 cm × 3.5 cm × 2.6 cm multilobulated, gelatinous, mobile left atrial mass attached to the area around the fossa ovalis of the interatrial septum not prolapsing through or obstructing the mitral valve (figure 2, video 1). CT of thorax, abdomen and the pelvis confirmed intracardiac left atrial mass. There were no signs of extracardiac primary malignancy, metastatic disease or lymphadenopathy. Preoperative workup for surgery was carried out. Coronary angiogram revealed severe proximal left anterior descending artery stenosis and diffuse mild disease in the left circumflex and right coronary artery. He was started on secondary prevention for coronary artery disease. He underwent surgery for myxoma resection and coronary artery bypass grafting with left internal mammary artery graft to the left anterior descending artery. Electrical cardioversion was done for postoperative atrial fibrillation. The patient was discharged home following restoration of sinus rhythm. His biopsy report confirmed left atrial myxoma.

Myxomas represent the most common benign primary cardiac tumours. Most often located in the left atrium, they can also be seen in the right atrium and ventricles.[1] They are usually seen in middle-aged patients with a reported mean age of 56 years.[2] The prevalence of coronary artery disease in patients with myxoma has not been clearly defined. Previous studies have reported a wide range, from 0% tp 11%.[3–6] Erdil *et al* found a 36% prevalence rate of CAD[2] whereas Fueredi *et al*[7] and Velasco *et al*[8] reporting a higher prevalence (66.7% and 82%, respectively). A systematic review and meta-analysis of 109 patients with cardiac myxoma by Silva *et al* showed a CAD prevalence ranging from 5.3% to 36.3% with an average of 20.7%.[9] Patients with myxoma can present with constitutional symptoms, dyspnoea, angina, syncope or embolic manifestations. In addition, myxomas can present as myocardial infarction secondary to arterial embolisation.[10] Transthoracic echocardiography is the initial modality, but transoesophageal echo is more sensitive. In cases of uncertainty,

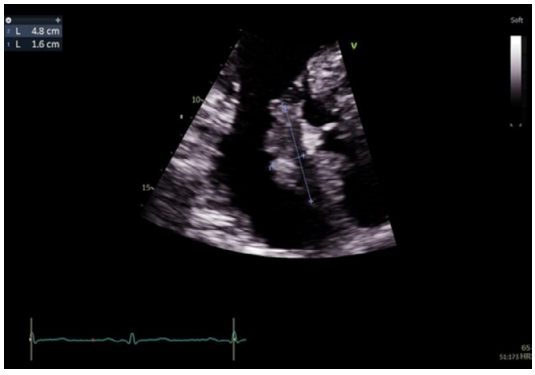


Figure 2 2D and 3D transoesophageal echocardiogram images showing a multilobulated, mobile left atrial mass attached to the interatrial septum. 2D, two dimensions; 3D, three dimensions.

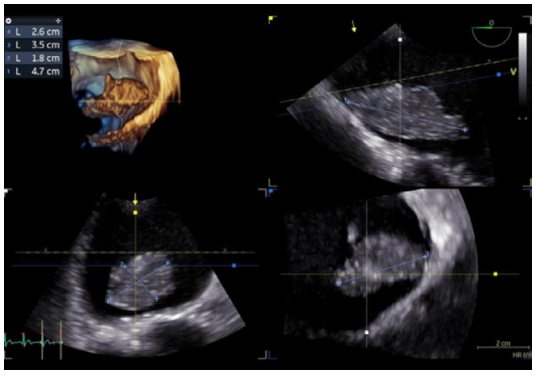
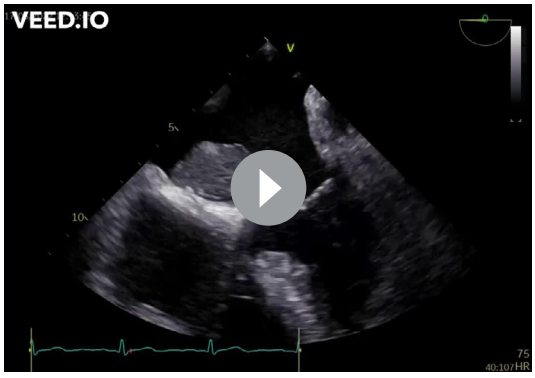


Figure 1 Transthoracic echocardiogram showing a large elongated mobile mass in the left atrium.



Video 1 Transthoracic and transoesophageal echocardiogram revealing a large left atrial mass.

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after transthoracic and transesophageal echocardiogram, CT or myocardial resonance imaging can be useful for diagnosis.[11–13] A definite diagnosis is made on biopsy. In isolated myxomas, surgical excision is the definitive treatment and should be performed early to reduce embolic complications, particularly stroke.[14] Management in patients with myxoma and concomitant CAD differs. Coronary angiography aids in identifying underlying obstructive coronary artery disease and provides information about tumour vascularity before surgery in patients with myxoma.[8] There are no definite guidelines, but patients presenting with acute myocardial infarction with myxoma undergo emergent percutaneous intervention with resection later[15] whereas those with stable coronary artery disease can undergo coronary artery bypass grafting and tumour resection simultaneously.

Learning points

- Cardiac mass should be considered in the differential diagnosis of syncope in all age groups.
- Myxomas can present in old age.
- Patients with myxomas can have underlying silent coronary artery disease.

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Case reports provide a valuable learning resource for the scientific community and can indicate areas of interest for future research. They should not be used in isolation to guide treatment choices or public health policy.

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