

CARDIAC IMAGING QUIZ

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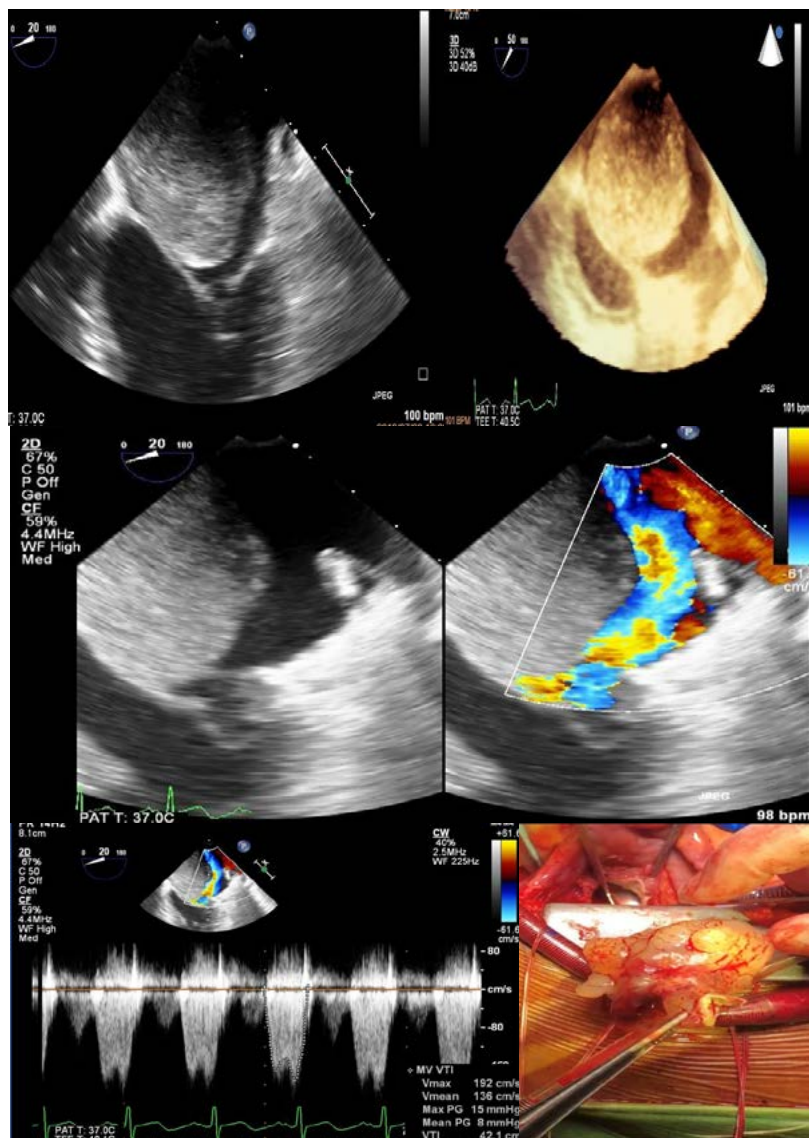
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DOI: <https://doi.org/10.24170/23-2-8340>

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QUESTION: What is the diagnosis?

- A Mitral stenosis with thrombus
- B Atrial myxoma
- C Infective endocarditis
- D Metastatic tumour

ANSWER

Correct answer: B. Atrial myxoma

CASE PRESENTATION

A young African male with no known comorbidities presented with clinical features of a cerebrovascular accident. On examination, an early diastolic sound (“tumour plop”), accompanied by a diastolic rumble and a loud first heart sound, was heard. The patient was not in heart failure and, on further history, admitted to on-and-off exertional dyspnoea. He had a normal electrocardiogram, and all his blood parameters were within the normal limits. At echocardiographic examination, a left atrial mass was noted. He underwent transoesophageal echocardiography for further evaluation. A large mass in the left atrium, attached to the interatrial septum, was observed (top panels). It straddled the aortomitral curtain and superior aspect of the anterior mitral valve leaflet (middle panels). The mass oscillated in and out of the left ventricle inlet, partially obstructing the mitral orifice in diastole and mimicking mitral stenosis physiology (bottom panels). A preliminary diagnosis of left atrial myxoma complicated by systemic embolism was made, and the patient was referred for surgery. A pedunculated mass consistent with atrial myxoma was removed at surgery. Histology confirmed the diagnosis of atrial myxoma.

DISCUSSION

Primary cardiac tumours are rare, occurring in only 0.0017–0.03% of autopsy series, and are far less common than cardiac metastases, which are approximately 30 times more frequent.⁽¹⁾ About 75% of primary cardiac tumours are benign, with myxomas accounting for roughly half of adult cases. Atrial myxomas typically affect middle-aged individuals, with a slight female predominance. In African populations, it presents diagnostic and therapeutic challenges.⁽²⁾ Limited access to echocardiography and specialised cardiac surgery often causes

delayed diagnosis, with tumours discovered at large sizes (as in this case), contributing to increased morbidity and mortality.^(2,3)

Clinically, myxomas classically present with a triad of obstructive symptoms (dyspnoea, syncope), embolic events (such as stroke), and constitutional features (fever, weight loss).⁽⁴⁾ They are most commonly found in the left atrium as pedunculated, mobile masses attached to the interatrial septum, producing a “ball-valve” effect that causes position-dependent symptoms like palpitations or dizziness.

The differential diagnosis of left atrial masses includes thrombi, lipomas, papillary fibroelastomas, metastatic tumours, and infective vegetations, each with distinguishing imaging characteristics.⁽⁵⁾ The primary diagnostic tool is echocardiography, supported by multimodality imaging.⁽⁴⁾ However, definitive diagnosis relies on histopathological confirmation, including endothelial marker positivity.⁽⁴⁾ When treated with prompt surgical resection, the prognosis of atrial myxoma is excellent, with post-operative survival comparable to that of the general population.⁽⁴⁾

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