

Incidental finding of a filamentous mass in the left atrium in a patient investigated for endocarditis

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DESCRIPTION

A previously fit and well middle-aged woman presented with a 24-hour history of deteriorating breathlessness and rigors. The patient showed signs of acute respiratory distress. She was febrile, tachycardic and had a loud pansystolic murmur at the cardiac apex. A chest radiograph showed right lower zone consolidation, and an ECG showed sinus tachycardia. Blood tests showed raised inflammatory markers with white cell count of $11.8 \times 10^9/L$ (normal range $4-10 \times 10^9/L$) and C reactive protein 56 mg/L (normal range 0–10 mg/L). A transthoracic echocardiogram identified severe mitral regurgitation secondary

to posterior mitral valve leaflet prolapse with a hyperdynamic left ventricle. Peripheral blood cultures were negative.

The patient was treated for community-acquired pneumonia and presumed endocarditis. A transoesophageal echocardiogram (TOE) confirmed severe mitral regurgitation secondary to a flail posterior mitral valve scallop (P2) with ruptured primary and secondary chords. There was also a posterior leaflet calcium spur and a vegetation. In addition, the TOE demonstrated a long, filamentous, mobile structure arising from the left atrial wall where the anteriorly directed jet of mitral regurgitation struck the left atrium (figure 1 and online supplementary video).

The patient underwent a mitral valve repair with a 26 mm annuloplasty ring, insertion of Gore-Tex neochords and removal of the filamentous mass. This was fibrous and was not infected (figure 2).

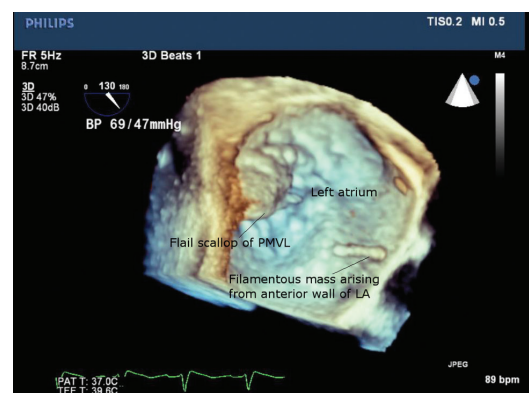


Figure 1 Three-dimensional TOE image showing a fibrinous mass arising from the anterior wall of the left atrium and flail scallop of posterior mitral valve leaflet. LA, left atrium; PMVL, posterior mitral valve leaflet; TOE, transoesophageal echocardiogram.

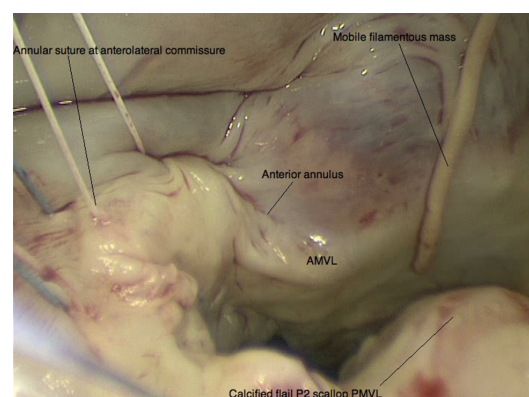


Figure 2 Intraoperative photograph of the fibrinous mass arising from the anterior left atrial wall in relation to neighbouring structures. AMVL, anterior mitral valve leaflet; PMVL, posterior mitral valve leaflet.

Learning points

- ▶ The European Society of Cardiology recommends the use of transoesophageal echocardiogram (TOE) in the assessment of valvular lesions when transthoracic echocardiogram is of suboptimal quality or when thrombosis, prosthetic dysfunction or endocarditis is suspected.¹ Three-dimensional TOE is of particular value in delineating exact anatomical features to determine the optimal surgical intervention, particularly relating to the mitral valve.²
- ▶ In this case, pre-procedural TOE was used to diagnose endocarditis, to identify the mechanism of mitral regurgitation and to determine the optimal valvular intervention. However, it also incidentally identified the fibrinous left atrial mass. Without this, the surgeon would not have searched for and resected the mass, and this may have resulted in a thromboembolic event in the future.
- ▶ The exact aetiology of the mass is unclear, but it arose from the left atrial wall at the site where the eccentric jet of mitral regurgitation struck the atrium, which may have been causative.

Contributors DH wrote the body of text. IA provided guidance on the operative side of the case and provided figure 2. CT acquired figure 1. RJ oversaw the project, edited the text and selected images.

Competing interests None declared.



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Patient consent Detail has been removed from this case description/these case descriptions to ensure anonymity. The editors and reviewers have seen the detailed information available and are satisfied that the information backs up the case the authors are making.

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