UFO in the heart: revealed during balloon mitral valvuloplasty for severe mitral stenosis

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DESCRIPTION

A 39-year-old man presented with worsening dyspnoea on exertion of 1-year duration. Cardiac auscultation revealed a loud first heart sound with a soft, rumbling mid-diastolic murmur. ECG showed P mitrale with tall R wave in V1. Chest roentgenogram revealed cardiomegaly with straightening of the left heart border suggestive of left atrial (LA) appendage enlargement, dilation of the right and left pulmonary arteries (horizontal arrows) and prominence of the both upper lobe pulmonary veins. A hyperdense lesion was noted in the left border of the cardiac silhouette (vertical arrow; figure 1). Transthoracic echocardiogram done showed severe mitral stenosis with a valve area of 0.8 cm^2 . No mass/thrombus could be delineated on transesophageal echocardiogram. During the percutaneous balloon mitral valvuloplasty procedure, a free floating calcified mass was seen inside the cardiac silhouette (figure 2, video 1). Possibilities considered were LA appendage mass/thrombus, healed vegetation, mitral annulus calcification and pericardial calcification. A 64 slice multidetector CT carried out showed a $1.7 \times 1.3 \text{ cm}$ calcified lesion along the pericardium of the left ventricle (figure 3A–C). Cardiac CT is an extremely useful

Figure 1 Chest roentgenogram showing cardiomegaly, straightening of left heart border, dilated pulmonary arteries and a small hyperdense mass in the left silhouette.

Figure 2 A calcified mass (the 'UFO') seen during balloon mitral valvuloplasty.

modality for delineation of pericardial calcification.^{1 2} Various causes of pericardial calcification include inflammatory diseases, such as Tuberculosis, prior pericarditis, radiation, uraemia, hemopericardium, connective tissue disorders and rheumatic fever. Pericarditis related to previous attacks of rheumatic fever was attributed as the possible cause of the calcification in this case.

Video 1 Cine film showing mobile calcified mass during balloon dilatation of the mitral valve.

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Figure 3 (A–C) Coronal, sagittal and axial multidetector CT scan sections demonstrating the location of the calcified mass in the pericardium.

Learning points

- ▶ Chest roentgenogram or fluoroscopy may not delineate the nature/location of pericardial mass.
- ▶ Pericardial calcification can occur as a benign entity as a response to previous inflammation.
- ▶ Aetiology of pericardial calcification includes inflammatory diseases such as tuberculosis, carditis, radiation, uraemia, hemopericardium, connective tissue disorders and rheumatic fever.

Competing interests None.

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