

## Left atrial myxoma: tortoise (2D TOE) or elephant (3D TOE)?

### CASE

A 59-year-old female presenting with confusion, short-term memory impairment and drowsiness was subsequently found on MRI to have innumerable small acute ischaemic foci involving both cerebellar hemispheres and thalamus. Two-dimensional transoesophageal echocardiography (2D TOE) revealed a tortoise-shaped, mobile left atrial mass arising from the superior atrial wall (figure 1A, white arrow). Real-time three-dimensional (3D) TOE delineated a large, multilobulated mass (4.7×2.3 cm) with an irregular surface, long elephantine trunk protruding into the mitral valve orifice with each atrial contraction (figure 1B, Video 1) and a narrow attachment to the left atrial wall in the region of the right upper pulmonary vein. The 3D TOE characterisation of the site of attachment and its stalk facilitated surgical approach for subsequent resection, which necessitated a pericardial patch and reconstruction of the left atrial wall. Histopathological evaluation confirmed the diagnosis of myxoma (figure 1C, Tumour (T)).

This case highlights the superiority of 3D over 2D TOE in the diagnosis and assessment of a left atrial myxoma. The 3D TOE images revealed the myxoma's actual size and geometrical shape

with a trunk-like protrusion not readily appreciated by 2D TOE. The tumour's attachment to the atrial wall could be clearly defined by virtual cropping through the 3D data set, thereby facilitating a surgical approach. This modality can also detect echolucencies within cardiac tumours and may help distinguish between myxomas and haemangiomas (echolucencies are more extensive with little intervening solid tissue).<sup>1</sup> Real-time 3D TOE has several advantages over 2D alone and provides a comprehensive and detailed assessment of myxomas.

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Additional video is published online only. To view this file please visit the journal online (<http://heartasia.bmj.com>).

**Competing interests** None.

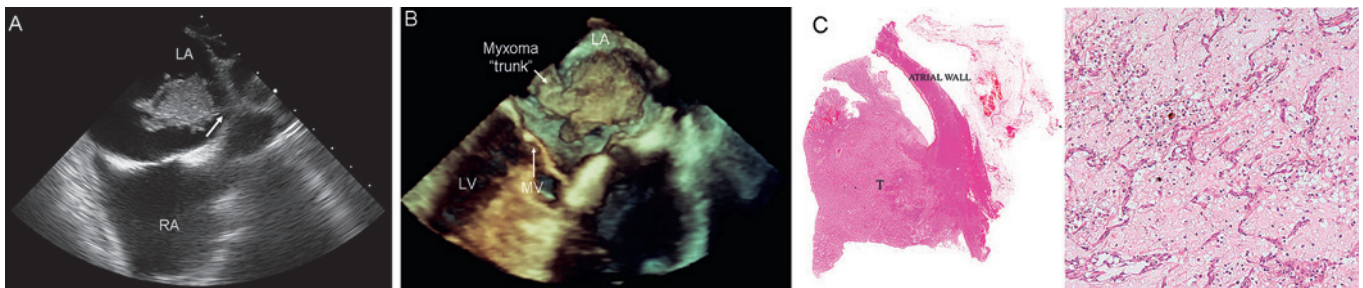
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### REFERENCE

1. **Mehmood F**, Nanda N, Vengala S, *et al*. Live three-dimensional transthoracic echocardiographic assessment of left atrial tumors. *Echocardiography* 2005;**22**:137–43.



**Figure 1**