

Multidetector Computed Tomographic Characterization of a Left Atrial Myxoma

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A 57-year-old woman presented to her local hospital with left arm and leg weakness and was diagnosed with a right-sided stroke. A subsequent transthoracic echocardiogram showed a large, poorly-defined mass within the left atrium, which prompted her transfer to our institute for urgent surgical resection.

As a prelude to surgery, we performed a “tripartite” coronary CT angiogram to assess the coronary anatomy and left atrial mass (Figure 1). The findings were consistent with a left atrial myxoma and the patient subsequently underwent surgery, where the mass was resected and the diagnosis substantiated (Figure 2).

Myxomas have an estimated incidence of 0.007%. Although echocardiography remains the first-line investigation to establish their diagnosis, the current case highlights the

typical appearances and usefulness of CT as a second-line investigation when further information is required.

Author contributions

Conception and design of the research: Marciniak A, Rajani R. Acquisition of data: Rajani R. Writing of the manuscript: Marciniak A, Rajani R. Supervision / as the major investigator: Rajani R.

Potential Conflict of Interest

No potential conflict of interest relevant to this article was reported.

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Study Association

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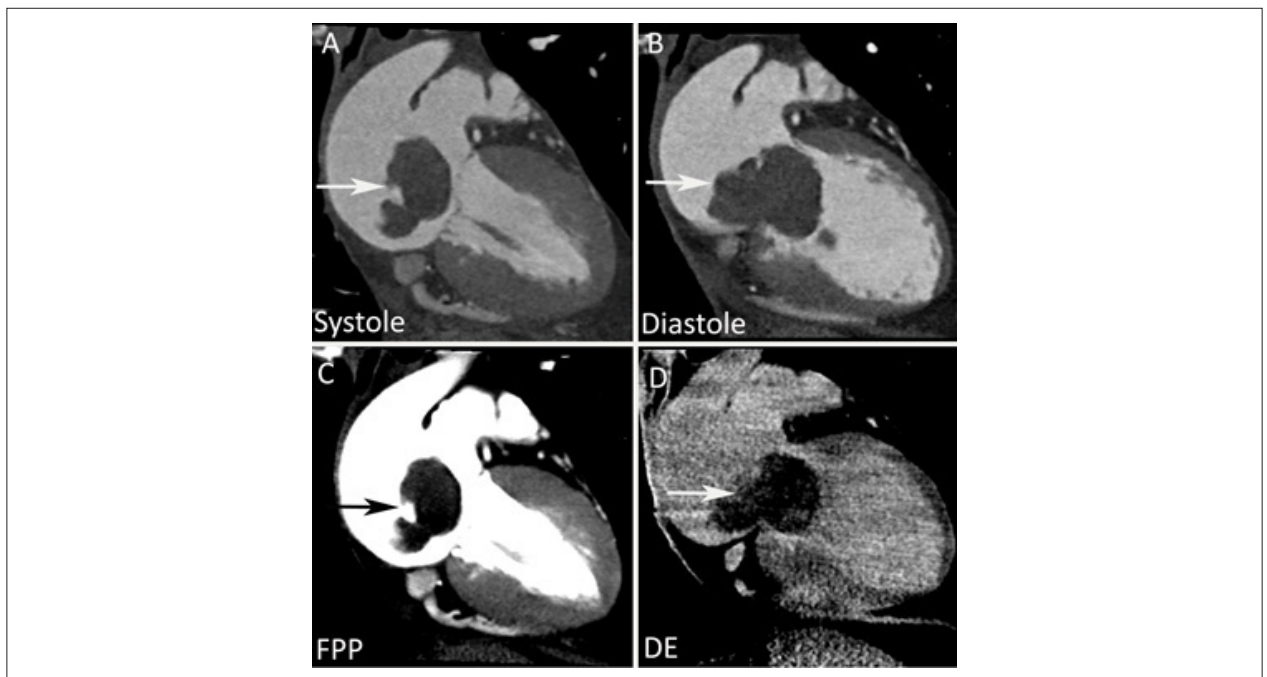


Figure 1 – ECG-gated cardiac computed tomography. Figure 1a shows a large mass (arrow) occupying one third of the left atrium in systole (40% phase). Figure 1b shows the mass (arrow) prolapsing through the mitral valve into the left ventricle in diastole (90% phase). On first pass perfusion (FPP) imaging (Figure 1c) the mass was shown to be hypoattenuated (52 HU) when compared to the myocardium (140 HU) indicating reduced vascularity. Figure 1d shows a lack of delayed enhancement (DE) on an interval scan performed 7 minutes later in keeping with the benign nature of the myxoma.

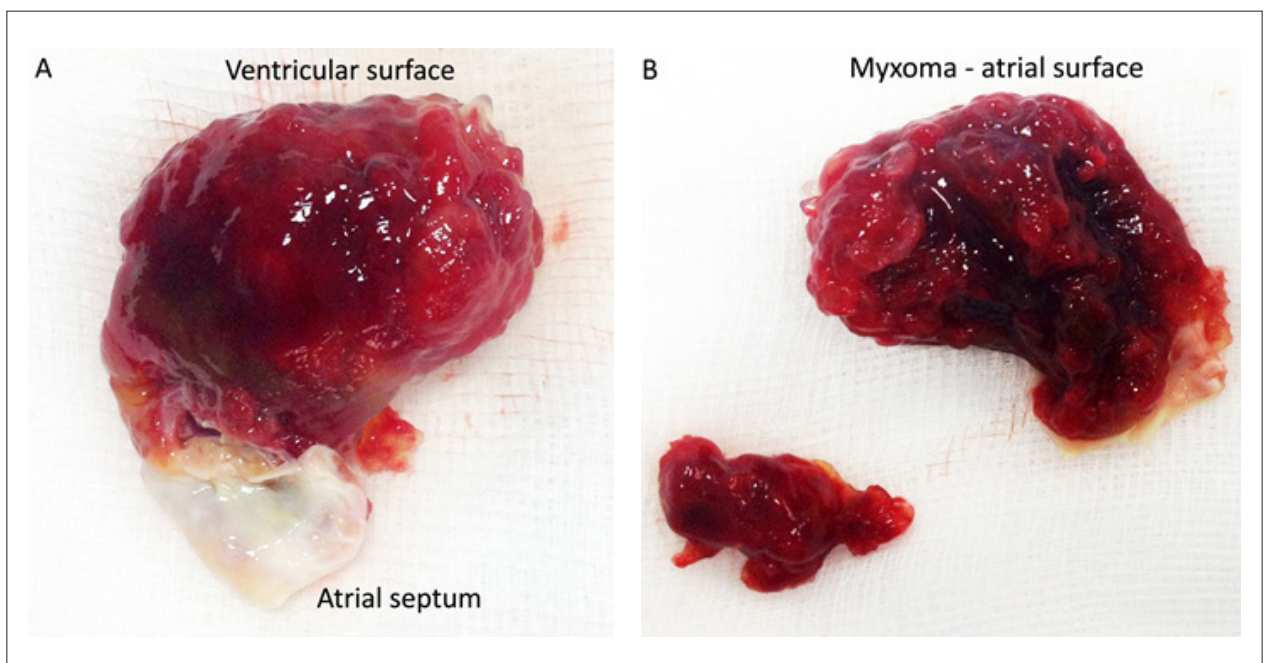


Figure 2 – Macroscopic appearance of the left atrial myxoma following surgical resection. Figure 1a shows the ventricular surface of the myxoma along with the atrial septum and Figure 1b the ventricular surface.