

A lesion that can and should be removed through a minimally invasive approach

Minimally invasive excision of a papillary fibroelastoma

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A 51-year-old patient suffered from recurrent atypical thoracic pain. Clinical examination, cardiac biomarkers and electrocardiography were unremarkable. Transthoracic echocardiography revealed a normal ejection fraction, trivial mitral regurgitation and a mobile, echo-dense mass, 10 mm long and 6 mm in diameter, attached to the chordae tendinae of the P1/A1 segment of the mitral valve leaflet (fig. 1A, arrow).

Cardiac magnetic resonance imaging confirmed the presence of the mass, showing a mobile structure on the cine images, an isointense signal on T1 and T2 weighted images, as well as a hyperenhancement after late gadolinium administration (fig. 1B, cine image, arrow).

Given the appearance of the tumour, a papillary fibroelastoma of the mitral valve was suspected. Papillary

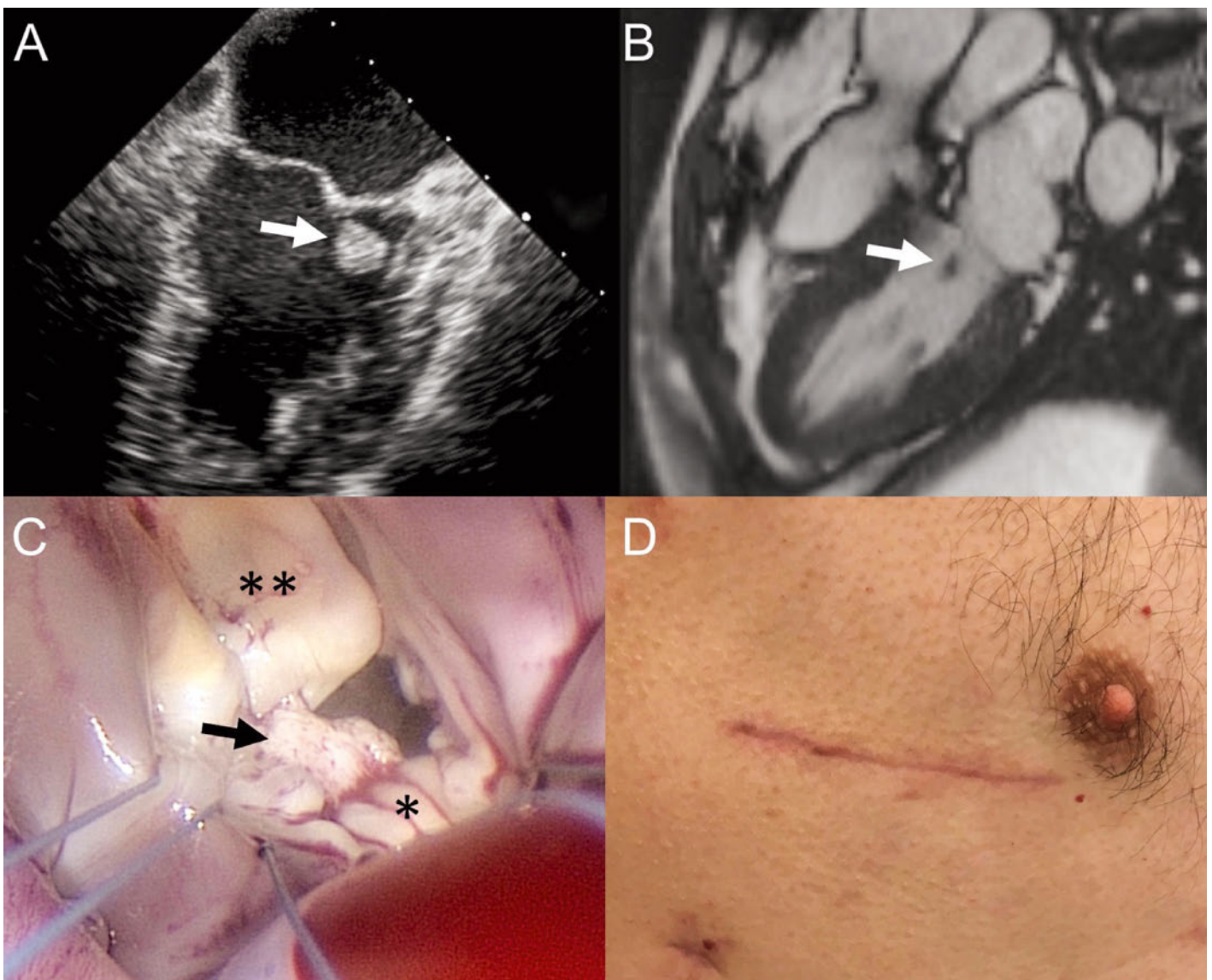


Figure 1.

fibroelastomas are rare primary cardiac tumours with a reported incidence of 0.002% [1]. Most patients are asymptomatic, but some are at increased risk of thromboembolic complications – in particular if the tumour is mobile and attached to the mitral valve apparatus [2]. We discussed the thrombotic risk with the patient and weighed it against the risk of minimally invasive surgery [3].

Because of the recurrent atypical thoracic pain experienced by the patient and the large diameter of the mobile mass, we chose surgery. Cardiopulmonary bypass was installed through a 2-cm right-sided groin incision. The heart was approached via a right-sided anterolateral minimally invasive incision.

After cardiac arrest and opening of the left atrium, we found a tumour attached to a secondary chord at the P1 segment of the posterior leaflet (fig. 1C, arrow point on the tumour, posterior* and anterior** mitral leaflet). The tumour was completely excised without damaging the leaflets. The intraoperative course was uneventful,

and echocardiography confirmed competent valve function. The postoperative course was uneventful and the patient discharged at day 7. Pathological diagnosis confirmed a papillary fibroelastoma.

Clinical follow-up at 3 months after surgery showed unremarkable wound healing (fig. 1D) and a full recovery.

Disclosure statement

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