

Left atrial papillary fibroelastoma as an unusual cause of myocardial infarction

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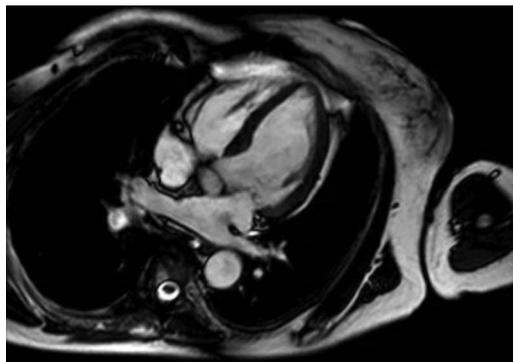
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DESCRIPTION

A 70-year-old woman with no history of cardiac disease was admitted with sudden onset of chest pain. ECG was normal. On infusion of nitroglycerin up to 16 mL/L, the patient became pain free. Bedside transthoracic echo showed discrete hypokinesia in the apicolateral region of the left ventricle and a possible thrombus in the left atrium. Cardiac markers (troponin T and creatine kinase MB) were elevated. Coronary angiography was normal with the exception of a minor side vessel occlusion, and CT showed no sign of pulmonary embolism. Transoesophageal echo showed a 0.9×1.5 cm pedunculated structure in the left atrium ([video 1](#) and [figure 1](#)). MRI of the heart showed late enhancement (gadolinium) with microvascular obstruction in the left ventricle and reinforced the suspicion of myxoma in the left atrium ([video 2](#)). Surgical excision of the tumour was successfully performed and histological examination revealed a papillary fibroelastoma.



Video 1 Transoesophageal echocardiography of pedunculated structure between the left atrial appendage and the left upper pulmonary vein.

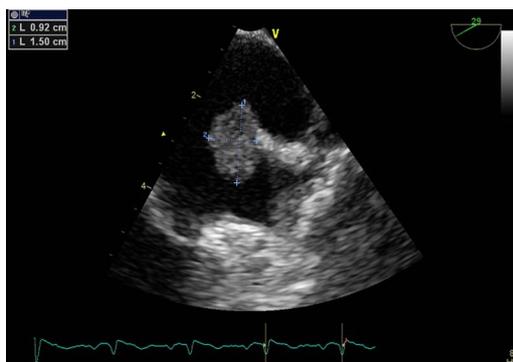
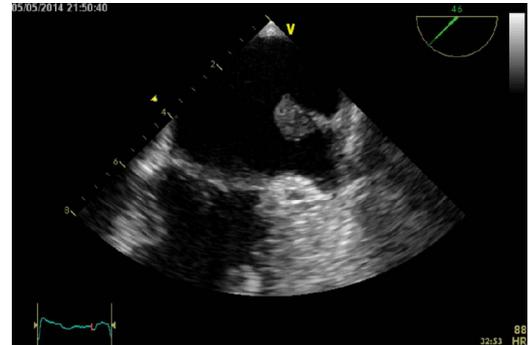


Figure 1 Transoesophageal echocardiography showing the size of the structure in the left atrium.



Video 2 Magnetic resonance imaging of pedunculated structure between the left atrial appendage and the left upper pulmonary vein.

Primary cardiac tumours are extremely rare (0.02% of autopsies),¹ whereas metastatic involvement of the heart is 20 times more common.² Papillary fibroelastoma is the second most common primary cardiac tumour found in adults.¹ Cardiac tumours may be symptomatic or found incidentally. Signs and symptoms of cardiac tumours are generally determined by their location and not by the histopathology.³ More than 80% of fibroelastomas are located on the heart valves, few in the ventricles and even less in the left atrium (1.6%).¹ Primary cardiac tumours are extremely rare causes of ischaemic cardiovascular events.

Learning points

- ▶ Cardiac tumours are rare causes of ischaemic cardiovascular events.
- ▶ Transoesophageal echocardiography provides high diagnostic certainty in patients with cardiac papillary fibroelastomas and reliably identifies atypical locations of these tumours on non-valvular surfaces.
- ▶ The type of cardiac tumours is generally determined by the location of the tumour, but definitive classification is given by histopathological examination.

Contributors FW and ELG collected the patient data (picture, videos and patient history). FW wrote the initial draft and ELG critically revised the manuscript. Both authors approved the final version.

Competing interests None.

Patient consent Obtained.

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