

Return of the Jedi

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Abstract

Papillary fibroelastomas are an uncommon cardiac anomaly which may present with cardiac or neurological symptoms or be found incidentally on echocardiography [1]. We report a patient who presented as a 74-year-old in 2007 following a cerebrovascular accident. Echocardiography demonstrated a round mobile mass attached to the basal anterior septum. The patient underwent surgical excision and the lesion was confirmed as a papillary fibroelastoma. The gentleman made a full recovery and was lost to follow-up until he represented in early 2018 for investigation of possible heart failure associated with atrial fibrillation. At echocardiogram we demonstrated recurrence of his basal anterior septal mass and a new second mass attached to his aortic valve. The appearances are highly consistent with papillary fibroelastomas and represent a rare recurrence following surgery.

Keywords: Fibroelastoma Recurrence; Left Ventricular Cardiac Tumor; Transthoracic Echocardiography

Introduction

Papillary Fibroelastomas are a not uncommon benign primary cardiac tumour, often found incidentally during a routine echocardiogram. When they do occur in association with significant neurological signs and symptoms the treatment is usually anticoagulation or surgical removal of the tumour. Following removal of the tumour recurrence in the same position on the endocardium is unusual if not rare.

Here we report the recurrence of a Papillary Fibroelastoma on the basal interventricular septum following previous surgical removal from the same position some 10 years earlier.

Case Report

A previously well 74-year old man presented for a transthoracic echocardiogram as a part of the stroke work up following a stroke in October 2007. The presentation was right lower limb hemiparesis with full recovery in 48 hours. Transthoracic echocardiogram (TTE) showed normal left ventricular (LV) size and systolic function with a left ventricular ejection fraction (LVEF) of 60 - 70%, aortic sclerosis with a round mobile mass attached to the basal anterior septum moving within the left ventricular outflow tract (LVOT) measuring 14 mm in diameter. The appearance of the echolucent mass with central cavitation was highly suggestive of thrombus. Valvular vegetation was recommended to be excluded with a transoesophageal echocardiogram (TOE).

TOE confirmed a highly mobile mass was attached to the basal anterior septum and a preliminary diagnosis of a papillary fibroelastoma was made. The mass was excised and the diagnosis of papillary fibroelastoma was confirmed on pathological examination. A follow-up TTE in March 2008 demonstrated complete removal of the mass.

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Unfortunately, the patient was lost to follow up. He was re-referred for a TTE following an episode of dyspnoea secondary to atrial fibrillation (AF). TTE showed normal LV size and systolic function with LVEF = 60%, unable to assess diastology due to AF, aortic sclerosis with mild aortic stenosis (AS) with Vmax 2.3 m/sec, mean PG < 20 mmHg and a valve area > 1.5 cm² with a small highly mobile structure attached to the basal septum of the LV and to the surface leaflet of the AV with an appearance consistent with papillary fibroelastoma. The new mobile masses measured 6mm in length and had appearances consistent with papillary fibroelastomas. Following consultation with the patient, the general practitioner (GP) and the cardiologist, a decision was made not to proceed with corrective cardiac surgery due to the patients age, co-morbidities and the patient's wishes.

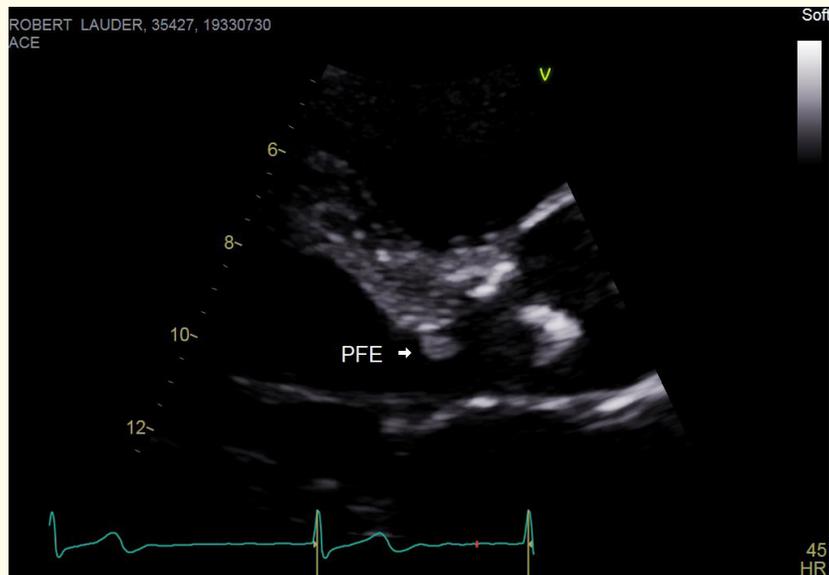


Figure 1

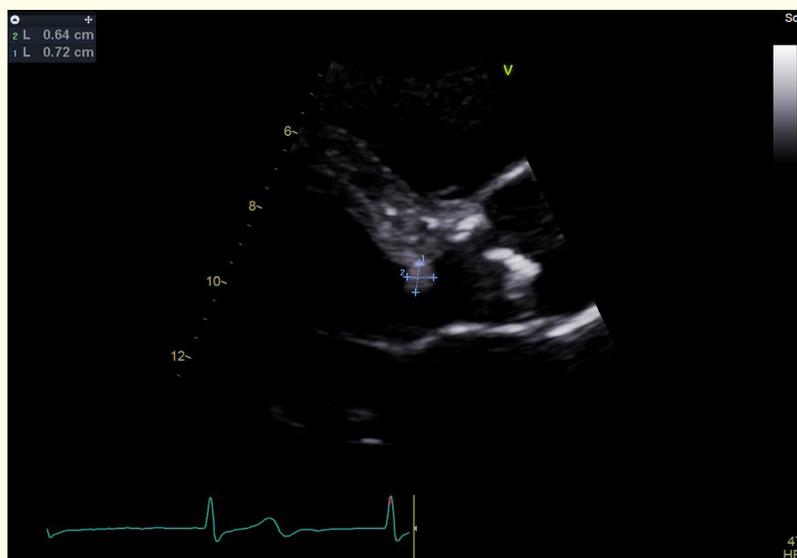


Figure 2

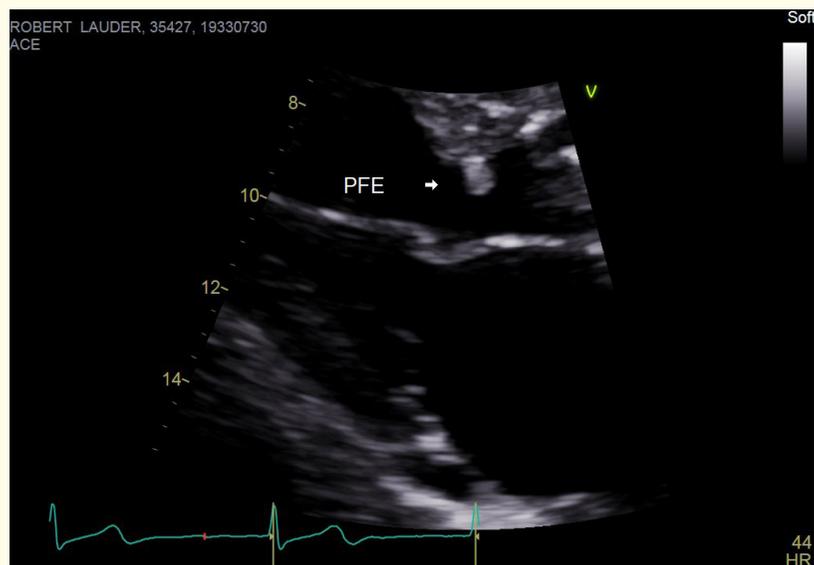


Figure 3

Discussion and Conclusion

Papillary fibroelastomas are one of the most common cardiac tumors, representing up to 10% of all tumors of the heart [2]. They commonly affect valvular structures, particularly aortic and mitral valves, and may occur in more than one area at the same time. Although they are benign tumors they can be associated with serious complications, including recurrent embolic strokes [3], which was probably the 2007 presentation of our patient. Recurrence after resection is extremely rare [4].

Although we have no tissue diagnosis on the recurrent structure its appearance, nature and location are highly suggestive of a recurrent papillary fibroelastoma.

In summary, although Papillary Fibroelastomas are a benign cardiac tumour, often surgical removal is necessary in the presence of an ongoing neurological risk related to thrombus on or around the Papillary Fibroelastoma. This case demonstrates that long term echocardiographic follow-up of these patients may reveal a recurrence rate for the Papillary Fibroelastoma.

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