

Lipoma At Right Ventricular Outflow Tract In A 57-Year-Old Patient With Atrial Fibrillation: A Case Report

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Citation

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Abstract

Primary cardiac tumours are rare with a particularly low incidence. Cardiac lipomas that make up 10% of these tumours are mostly asymptomatic. We report a previously healthy 57-year-old patient with new onset atrial fibrillation that was incidentally found to have an atrial lipoma. A transoesophageal echocardiogram, computer tomography (CT) scanning and magnetic resonance imaging (MRI) aided the diagnosis. To our knowledge the radiographic features presented have never been reported

INTRODUCTION

Primary cardiac tumours have got a relatively low incidence with more than three quarters of the cases being benign. Cardiac lipomas account for just under 10% of this group of tumours and are histologically similar to extracardiac lipomas¹. Over the past 100 years just over 60 cases of heart lipoma have been reported. We present a case of a previously healthy middle-aged individual with an atrial lipoma indenting the right ventricular outflow tract and in close approximation to the right coronary artery.

CASE REPORT

A 57-year-old gentleman was electively admitted to our Cardiothoracic Centre (CTC) for a transoesophageal echocardiogram (TOE), having been previously fit and well. The patient's general practitioner had incidentally found an irregular pulse that was confirmed with an electrocardiogram (ECG) and digoxin and warfarin were commenced. He was then referred to our CTC for a planned direct-current (DC) cardioversion. This was however abandoned as the transthoracic echo that was performed previously showed a mass in the aortic root. As a result it was suggested to proceed with a TOE instead to rule out any thrombus.

The TOE re-demonstrated a mass occupying the right coronary sinus but further imaging was required to define this structure. A subsequent computer tomography (CT) of the aorta demonstrated a 2.7 x 2.0 cm fat attenuation lesion located between the right coronary sinus and the ventricular outflow tract (Fig. 1). This mass was closely related to the

origin and also to the proximal right coronary artery (Fig. 1). The structure appeared to indent into the right ventricular outflow tract (RVOT) and also into the ventricle itself, but did not seem to invade either structure (Fig. 2).

Subsequently, cardiac magnetic resonance (CMR) imaging was needed for further characterisation of the mass. It similarly showed a mass indenting the RVOT close to the tricuspid valve with fatty signal characteristics suggestive of a lipoma (Fig 3 and 4). The mass was homogenous with regular borders and appeared non-vascular after perfusion imaging. There was no evidence of myocardial fibrosis or infarction.

Following these investigations it was decided that this patient could be followed up as an outpatient with either an exercise tolerance test (ETT) or a 2-methoxy isobutyl isonitrile (MIBI) stress test. No surgical intervention was advised.

Figure 1

Fig 1 showing fatty attenuation mass between the right coronary sinus and ventricular out flow tract.

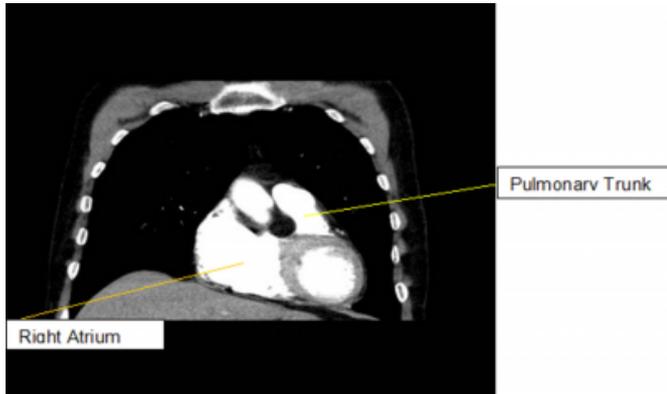


Figure 4

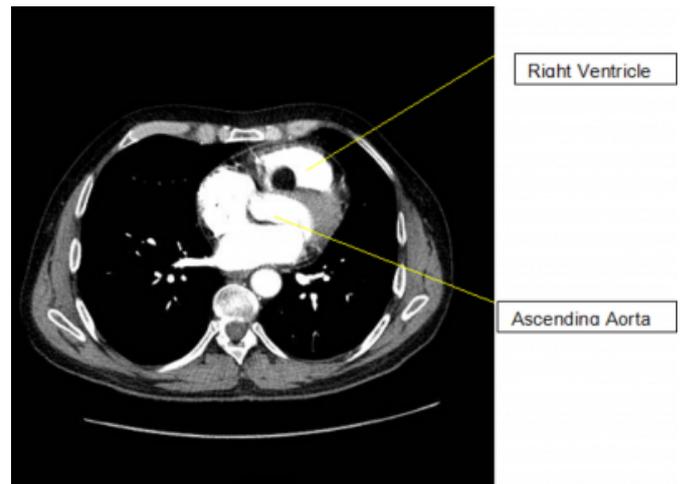


Figure 2

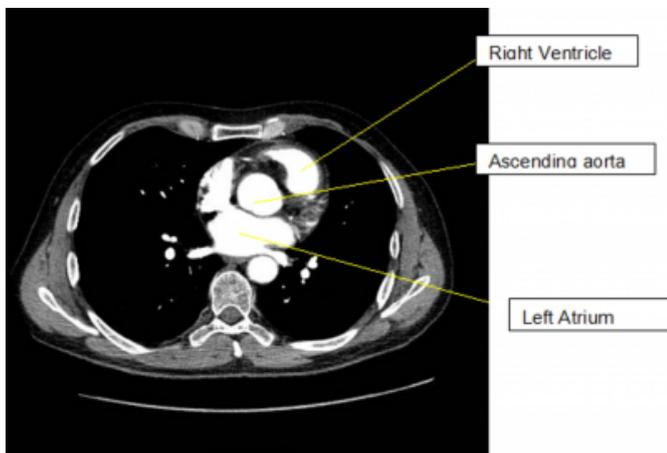


Figure 5

Fig 3 a) and b) fatty signal mass indenting RIGHT ventricle

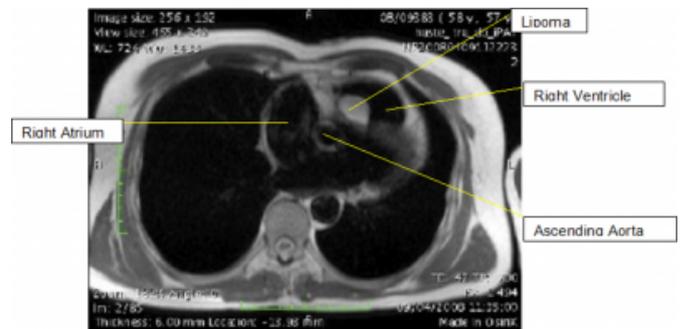


Figure 3

Fig 2 a) and b) fatty attenuation mass indenting RIGHT ventricle

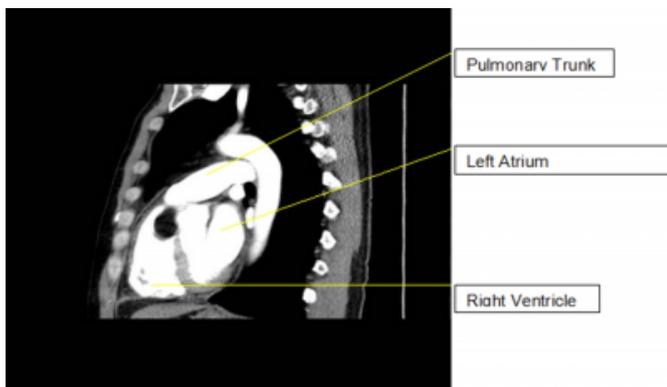
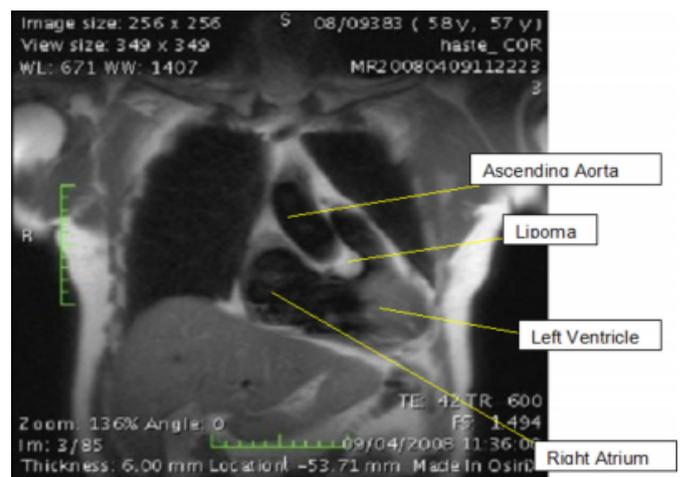


Figure 6



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