

A Large Atrial Myxoma in a Patient Presenting with Paroxysmal Atrial Fibrillation: A Case Report

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ABSTRACT

We present here an unusual cause of paroxysmal atrial fibrillation in a 40-year-old Caucasian woman diagnosed years later with echocardiography of a large left atrial myxoma together with an image of the excised tumor and its histology. This case informs general medical physicians to be aware of uncommon causes of paroxysmal atrial fibrillation and have a low threshold for arranging transthoracic echocardiography not only look for structurally heart disease, but also cardiac tumors during their medical takes.

KEY WORDS: Atrial fibrillation, echo, histology, myxomas, pathology

Introduction

Atrial fibrillation is often associated with ischemic heart disease, hypertension, diabetes or other systemic disease such as thyroid disease. However, uncommon causes such atrial myxomas are often overlooked and should be part of one's list of differential diagnosis. Atrial myxomas are the most common primary cardiac tumor, with higher prevalence in women.^[1] Macroscopically they are often pedunculated and arise from the region of the fossa ovalis, with 75% located in the left atrium and 25% in the right atrium. Interestingly, right atrial myxomas are associated with tricuspid stenosis as well as atrial fibrillation.^[2] Microscopically, these tumors are benign although local recurrence due to inadequate resection may occur, and they may behave in a malignant manner due to invasion, obstruction of valve leaflets and embolization.

Case Report

A 40-year-old woman presented to the hospital with a 6-h history of palpitations associated with dyspnea and chest tightness. 12-lead electrocardiogram revealed atrial fibrillation,

which reverted spontaneously to sinus rhythm, which subsequently settled her symptoms. Clinical examination was unremarkable. It transpired that she has had recurrent episodes of palpitations over the last 7 years, intermittent in nature, irregular and fast with duration up to 12 h. No previous investigations were performed. An echocardiogram was performed. This revealed a large left atrial (LA) mass measuring 7.9 cm × 2.75 cm, which prolapsed through the mitral valve causing significant valvular obstruction (Figure 1). The mass appeared to be attached to the mid portion of the interatrial septum. She subsequently underwent surgery to remove the large LA mass. During the surgery, they found a broad-based myxoma attached to the atrial septum. The tumor was excised completely with the septal defect repaired with an autologous pericardial patch (Figure 2).

Discussion

Clinical presentation depends on the size, location and mobility of the tumor. Well-recognized presentations are with systemic embolization, conduction disturbances and valve obstructions, which can result in sudden death. Transthoracic echocardiography is often diagnostic.^[3] The rate of growth is unknown with the mainstay of treatment being surgery as was with this case.^[4] The risk of operative mortality is <5% with a risk of recurrence in the order of 5% and therefore follow-up is required. The risk of recurrence is higher in the familial myxoma syndrome.^[5]

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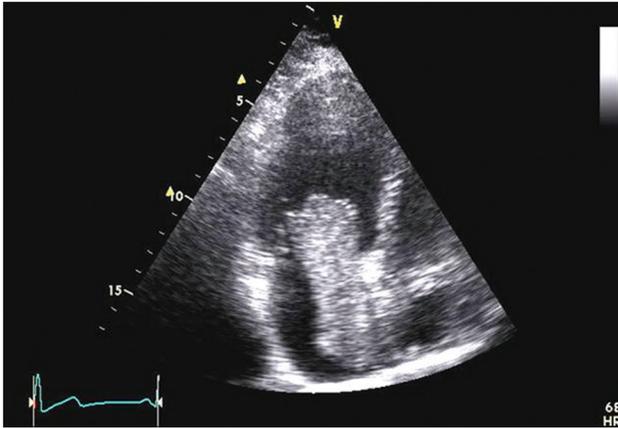


Figure 1: Echocardiography showing a large mass within the left atrium protruding through the mitral valve causing some obstruction to left ventricular inflow

Learning point for clinicians

This case informs general medical physicians to be aware of uncommon causes of paroxysmal atrial fibrillation and have a low threshold for arranging transthoracic echocardiography to not only look for structurally heart disease but also cardiac tumors during their medical takes.

Authors' Contributions

TTP and RB were major contributors in writing the manuscript. All authors read and approved the final manuscript.

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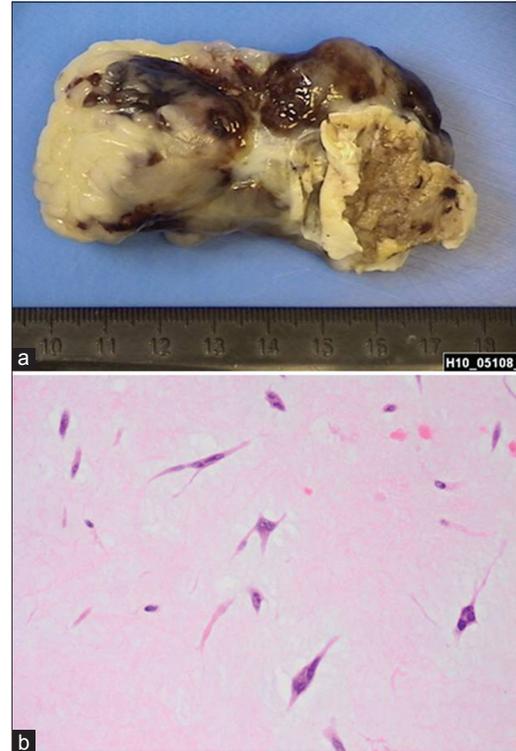


Figure 2: (a) Excised myxoma tumor with a smooth surface and the irregular area on the right is the insertion, (b) is a histological slide showing fusiform/stellate myxoma cells

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