Original Research Paper

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Radiology

A CASE REPORT OF LEFT ATRIAL MYXOMA PRESENTING WITH DYSPNOEA

Dr B.K. Duara	Professor & HOD, Department of Radiology, Gauhati Medical College
Dr. Subhosree Dey	3rd Year PGT, Department of Radiology, Gauhati Medical College
Dr. Baloy Jyoti Talukdar	3rd Year PGT, Department of Radiology, Gauhati Medical College

ABSTRACT **Background** About 75% of primary cardiac tumours are benign of which cardiac myxomas are the most common benign tumours of the heart. These tumours are usually detected incidentally following investigation of pyrexia, syncope, dyspnoea, arrhythmias or emboli. Occasionally, patient presents with constitutional symptoms like malaise and features suggestive of a connective tissue disorder, including a raised ESR. **Case summary** A 60-year old woman presented with a year history of dyspnea, malaise and generalized weakness which got worsened for the past one week. Physical examination revealed pallor and tachycardia. Electrocardiogram demonstrated normal sinus rhythm. Chest X ray showed cardiomegaly with double contouring of right heart border and widening of carina, suggestive of left atrial enlargement. Echocardiography revealed a left atrial mass attached to inter atrial septum, dilated left atrium, mild mitral regurgitation, mild left ventricular systolic dysfunction and type I diastolic dysfunction. Contrast enhanced cardiac magnetic resonance imaging revealed a broad based left atrial mass arising from the interatrial septum with resultant decreased contractility of left atrium and reduced left ventricular ejection fraction. Subsequently she underwent surgical resection and the gross specimen was sent for histopathological examination. HPE revealed features of myxoma. **Discussion** Cardiac myxomas are rare benign tumours of the heart. Echocardiography is the diagnostic procedure of choice. However, contrast enhanced cardiac magnetic resonance imaging helps to differentiate this condition from atrial thrombus which is sometimes difficult to distinguish on echocardiography. Early diagnosis and timely surgical resection of the condition can prevent its debilitating and catastrophic complications.

KEYWORDS :

INTRODUCTION

Primary cardiac tumors are rare, with an incidence of 1.38 per 100,000 people per year [1]. Cardiac myxoma (CM) still remains a rare clinical entity with an incidence of surgically resected cases of 0.5–0.7 per million population and prevalence of < 5 per 10,000 [2]. It typically manifests in woman after third decade of life (mean age 30-70 years). It has diverse clinical presentations ranging from asymptomatic to symptoms like dyspnea, angina, syncope, cough, vertigo, fatigue, fever and stroke. Patients with myxomas often present with at least one feature of a triad that consists of cardiac obstructive symptoms, constitutional symptoms, and embolic events. About 75 to 85% of myxomas occur in the left atrium, 10 to 20% in the right atrium, and 5% in the ventricles [3]. They typically manifest as a polypoid intracavitary left atrial (LA) mass that arises from the interatrial septum in the region of fossa ovale. Imaging plays a key role in establishing the diagnosis of patients with cardiac myxomas and thrombi because the clinical presentation is often diverse and nonspecific[4]. The differentiation between myxomas and thrombi is important because of the distinct patient treatment (namely, surgery for myxomas and anticoagulation therapy for thrombi)[5].

Case presentation

A 60-year old woman, known hypertensive and diabetic, presented with a year history of dyspnea on exertion, malaise and generalised weakness which got worsened for the past one week. Upon evaluation patient was afebrile with a temperature of 98.6°F, blood pressure of 150/90 mmHg, increased heart rate of 120 b.p.m., respiratory rate of 22, and oxygen saturation of 95% on ambient air. On physical examination, there was pallor. There was no jugular venous distension. On auscultation, lungs were clear and cardiac examination revealed. Abdomen and neurological examination were unremarkable.

Electrocardiogram demonstrated normal sinus rhythm.(Figure 1)

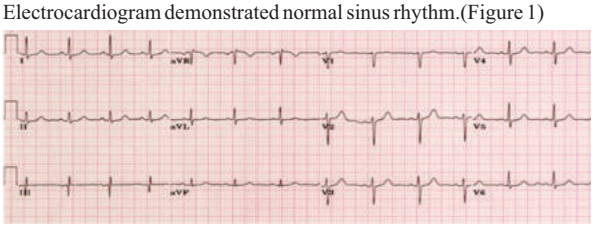

Figure 1

Chest X ray showed cardiomegaly with double contouring of right heart border and widening of carina, suggestive of left atrial enlargement (Figure 2).

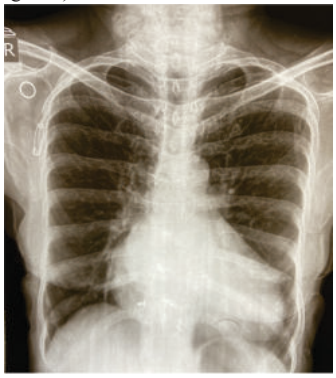

Figure 2

Echocardiography revealed a left atrial mass attached to inter atrial septum (Figure 3), dilated left atrium, mild mitral regurgitation, mild left ventricular systolic dysfunction and type I diastolic dysfunction.

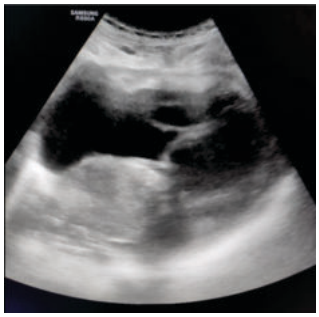

Figure 3

Contrast enhanced cardiac magnetic resonance imaging revealed a broad based left atrial mass, which is T1 hypointense and T2 heterogeneously hyperintense and shows heterogeneous post contrast enhancment arising from the interatrial septum with resultant decreased contractility of left atrium and reduced left ventricular ejection fraction. (Figure 4)

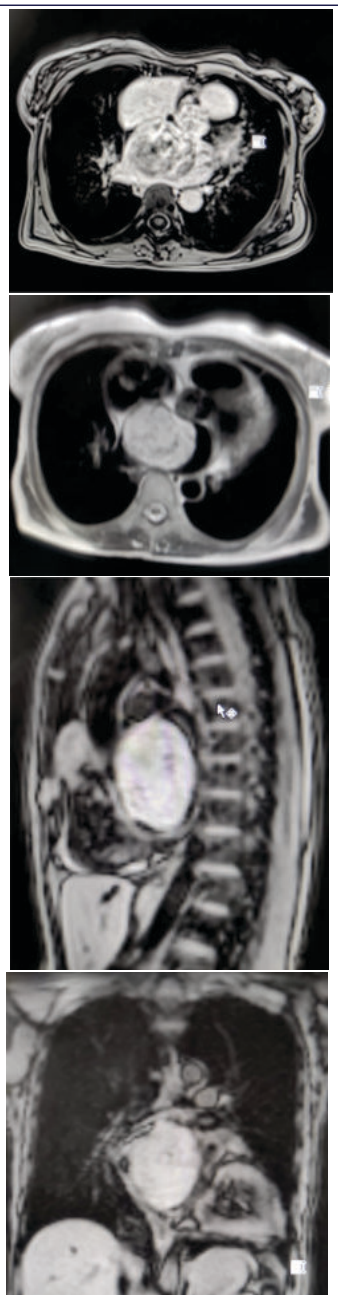

Figure 4

Subsequently she underwent surgical resection and the gross specimen was sent for histopathological examination. HPE revealed features of myxoma. (Figure 5)

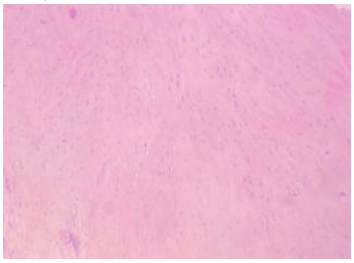

Figure 5

DISCUSSION

Cardiac myxomas are rare benign tumours of the heart. Seventy-five percent of cardiac tumours are benign, with myxoma accounting for 50% and rhabdomyoma comprising 20% of lesions [6]. The majority of cardiac myxomas are sporadic and mostly occur as an isolated lesion in middle-aged women[7]. An uncommon but well-described association with multiple endocrine neoplasia syndromes has been described, and is known as Carney complex[8,9]. Clinical presentation is variable ranging from fatigue, fever and shortness of breath to transient ischemic attack and at worst, sudden cardiac death [10]. They can be sessile or pedunculated (commoner) and of variable size (1-10 cm). They most frequently arise in the left atrium, attached to the interatrial septum in the region of the fossa ovale. Echocardiography is the diagnostic procedure of choice. However, contrast enhanced cardiac magnetic resonance imaging helps to differentiate this condition from atrial thrombus which is sometimes difficult to distinguish on echocardiography. Early diagnosis and timely surgical resection of the condition can prevent its debilitating and catastrophic complications.

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