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A RARE PRESENTATION OF A LARGE LEFT ATRIAL MYXOMA WITH GASTROINTESTINAL SYMPTOMS

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ABSTRACT

Atrial myxoma is a rare primary tumour of the heart that typically arises from the left atrium. Patients typically present with obstructive symptoms such as dyspnoea, but constitutional and embolic symptoms can be seen as well. Gastrointestinal symptoms in the absence of embolisation are rarely reported in the literature. Our case presents a 55-year-old female who was found to have a large left atrial myxoma after presenting with gastrointestinal symptoms, which resolved upon resection of the tumour. This case illustrates that atrial myxomas can have an atypical presentation with gastrointestinal symptoms, which could be related to inflammation of gastric mucosa from interleukin-6 produced by the tumour cells. Careful history-taking followed by early detection and prompt treatment is important as atrial myxomas can lead to potentially devastating complications.

KEYWORDS

Atrial myxoma, interleukin-6, gastrointestinal symptoms, constitutional symptoms

LEARNING POINTS

- Atrial myxomas are primary tumours of the heart that can present with a wide spectrum of symptoms.
- Early consideration and recognition of atypical presentations of atrial myxomas can be crucial in preventing serious consequences such as cardiac arrest.

INTRODUCTION

Myxomas are the most common primary cardiac tumour in adults. They are most frequently seen in the left atrium[1], usually from the interatrial septum, while the remainder are mostly seen in the right atrium. There is a higher occurrence among females (64%)[1], particularly between the fourth and sixth decades of life. According to a systematic review by Oktaviono et al[1], dyspnoea was the main symptom in 64 of 91 studies. Other common cardiovascular symptoms include palpitation and syncope. In addition, constitutional symptoms such as fever and weight loss are common due to interleukin-6 expressed by myxoma cells[2] and symptoms related to systemic embolism[3] can be seen in around 30–40% of cases[4]. However, gastrointestinal symptoms are rarely reported in the literature in the absence of embolisation.

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CASE DESCRIPTION

A 55-year-old female with a past medical history of hyperthyroidism and breast and uterine cancers in remission presented to the emergency department with abdominal pain for 2 weeks and intermittent nausea and vomiting for a month. She denied any fever or chills, or diarrhoea. On physical examination, she was haemodynamically stable, on room air and afebrile. The abdomen was mildly tender to palpation in the epigastrium and left upper quadrant without guarding or rebound tenderness. The remainder of the examination was unremarkable. Initial laboratory findings were unremarkable with normal liver and thyroid function tests, and negative high-sensitivity troponin T level. An electrocardiogram showed a sinus rhythm; a computed tomography (CT) scan of the abdomen and pelvis with contrast revealed an incidental 4–5 cm soft tissue density in the left atrium *(Fig. 1)*. There were no specific findings that would explain the abdominal pain. Cardiothoracic surgery and cardiology teams were consulted, and the patient was admitted to the hospital. The patient underwent coronary angiography, which showed a 'tumour blush' *(Fig. 2)* with left atrial mass receiving flow from the left circumflex artery; no significant coronary artery disease was seen. Transoesophageal echocardiogram revealed a left atrial mass measuring 6.0 cm × 3.7 cm arising from the interatrial septum that prolapsed into the left ventricle, and mitral stenosis from the mass *(Fig. 3)*. The patient subsequently underwent excision of the left atrial mass and pathology confirmed the diagnosis of myxoma.

DISCUSSION

Our patient in this case presented with gastrointestinal symptoms of abdominal pain, and nausea and vomiting. With a further interview, we found out that she had also been dealing with intermittent dyspnoea on exertion, palpitations and unintentional weight loss of 40 lbs over the past year, but her symptoms were mild, so she did not seek medical care. Our case illustrates that although cardiac myxomas are primarily thought of as benign tumours, it may present with very non-specific and mild symptoms that can easily be overlooked. This could lead to devastating consequences of myxoma such as cardiac arrest. Currently, the literature is sparse on cardiac myxoma with gastrointestinal symptoms. In our patient, it is possible that her gastrointestinal symptoms were related to inflammation of gastric mucosa from interleukin-6 produced by tumour cells. While gastrointestinal symptoms are not commonly associated with interleukin-6, there have been few studies that found an increase in expression of interleukin-6 in patients with gastritis and gastric cancer[5]. Increased expression of interleukin-6 would also explain the patient's unintentional weight loss, which is a common symptom associated with interleukin-6. The patient's symptom resolution after the resection of the myxoma could be related to the removal of the source of interleukin-6. A limitation of our study is that we had limited work-up of the patient's gastrointestinal symptoms as her symptoms quickly resolved after the resection of the myxoma.

Currently, little is known about the aetiology of cardiac

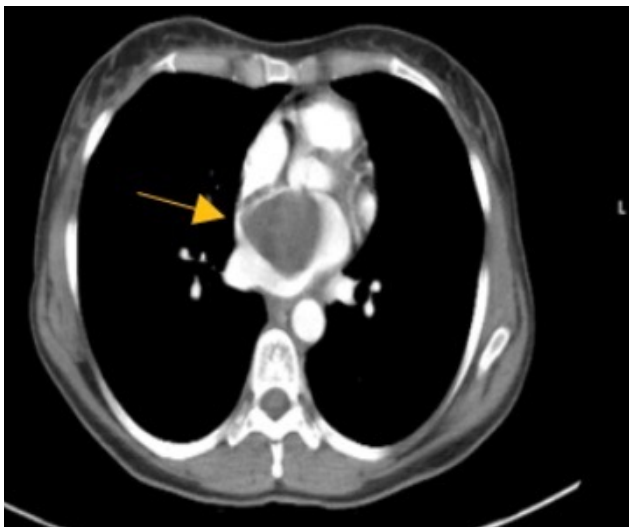


Figure 1. CT abdomen and pelvis showing a large mass in the left atrium (arrow).

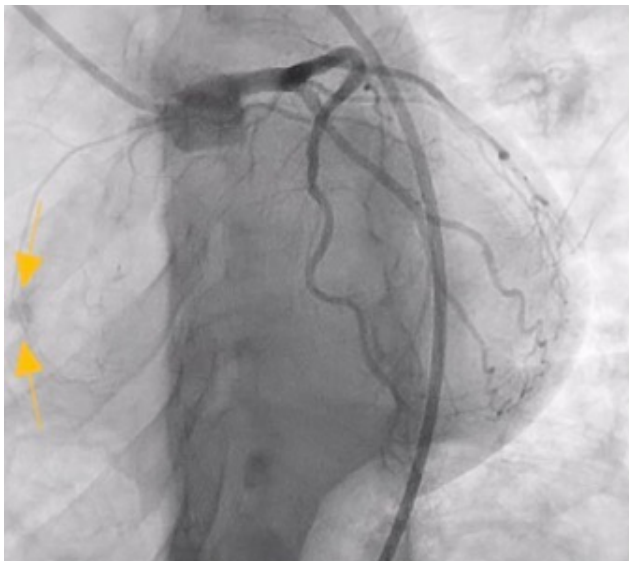


Figure 2. 'Tumour blush' from left atrial myxoma (arrow).

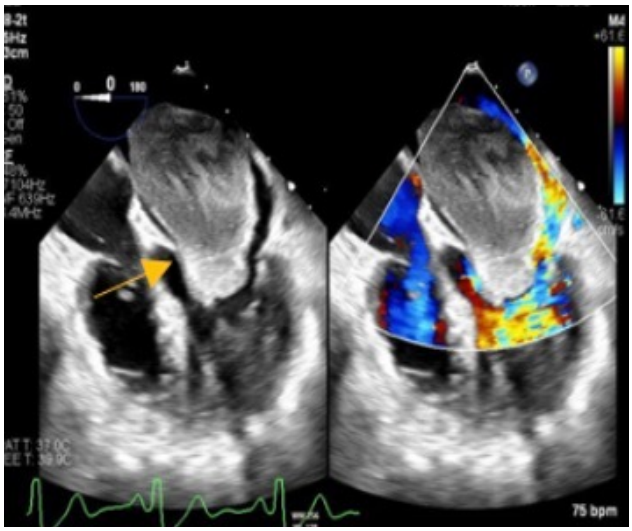


Figure 3. Left atrial mass prolapsing into the left ventricle (arrow).

myxomas. There are familial variants[6] of myxomas and they have also been described in Carney complex, an autosomal dominant disorder characterised by skin abnormalities and various endocrine and non-endocrine tumours including myxomas[7]. Further exploration into aetiology and risk factors for cardiac myxoma could aid physicians in detecting more subtle presentations of myxoma. Diagnosis of myxoma can be made with echocardiography, and surgical resection of myxoma is associated with excellent outcomes[8].

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