A Case of Left Atrial Myxoma Diagnosed on Routine Preoperative Evaluation

Dhinakaran Krishnamurthy

AMC Superspeciality Hospitals, Tirupur, Tamil Nadu, India

Citation: Dhinakaran Krishnamurthy. A Case of Left Atrial Myxoma Diagnosed on Routine Preoperative Evaluation. ERWEJ. 2023;3(3):116-119. 10.54136/ERWEJ-0303-10060

© Author(s), 2023, Publisher and License: THB. Open Access. This article is distributed under the terms of the Creative Commons Attribution 4.0 International License, which permits unrestricted use, distribution, and non-commercial reproduction in any medium, provided you give appropriate credit to the original author(s) and the source.

Abstract

Cardiac tumors are very rare and myxoma is the most common primary cardiac tumor. Cardiac myxomas frequently originate from the left atrium and predominantly affect women. We present a case of a 65-year-old male who was admitted for hernia surgery and underwent preoperative evaluation. On evaluation, he was found to have a diastolic murmur on auscultation and had a history of exercise intolerance, and a transthoracic echocardiogram was done. It revealed a large mass in the left atrium attached to the interatrial septum suggestive of left atrial myxoma. He then underwent surgical resection of the tumor. The lack of recognition of this condition by appropriate history and physical exam can lead to a delay in diagnosis and treatment and the risk of cardiovascular complications.

Introduction

Cardiac tumors can be primary or secondary. Secondary cardiac tumors are more frequent than primary tumors. Myxomas are the most common primary tumors of the heart. Atrial myxomas originate from the left atrium in more than 75% of the cases and around 20% originate from the right atrium. The clinical presentation of the tumor depends on the size and its location and may present as a diagnostic challenge in view of the varied presentation [1].

We are presenting a case who was admitted for an abdominal surgical procedure and on preoperative workup, found to have a left atrial myxoma. He underwent surgical removal of the tumor.
Case presentation

A 65-year-old male, with no previous comorbidities, was evaluated for abdominal pain and was diagnosed with an inguinal hernia. He underwent a preoperative workup. On taking the initial history, the patient denied any history of cardiac or pulmonary disease. On repeated questioning, he complained of decreased exercise tolerance over the past 2 years for which he did not approach any medical facility. There was no history of angina, palpitations, edema, and syncope. Clinical examination was unremarkable except for a faint diastolic murmur at the cardiac apex. Blood pressure was 120/70 mmHg, and pulse rate was 82/minute, regular.

Another system exam was unremarkable except for left groin swelling (Hernia). His routine blood investigations revealed normal blood counts, normal hemoglobin, glucose, and creatinine levels. ECG showed sinus rhythm, with non-specific ST changes. Chest X-Ray was unremarkable (Figure 1).

Figure 1: Echocardiographic image (Parasternal long axis and apical four-chamber view) revealed a large nodular mass in the left atrium

The transthoracic echocardiogram showed dilated left atrium, and a large lobulated (34 x 28 mm), smooth-surfaced, pedunculated mass in the left atrium attached to the inner surface of the interatrial septum. The mass was slightly protruding into the LV without causing a significant gradient between the chambers. The left ventricular ejection fraction was normal and trivial mitral regurgitation was present. Based on the clinical and echocardiographic features a provisional diagnosis of LA myxoma was made. The patient was referred to the cardiac surgery department. After further workup, he underwent Surgical removal of the mass by median sternotomy and a biopsy confirmed the diagnosis. He was scheduled for hernia surgery later.
Discussion

The incidence of primary tumors of the heart is very rare and is reported to be approximately 200 per 1,000,000. Approximately 75% of primary tumors of the heart are benign. Nearly half of the benign lesions are atrial myxomas. They arise from the interatrial septum frequently but can also arise from the atrial appendage or posterior atrial wall. Atrial myxomas predominantly occur in women and are present commonly between the fourth and sixth decades of life [2].

The clinical presentation varies based on the size and location of the tumor. LA myxoma can present with clinical features resembling mitral stenosis (due to LV inflow obstruction) which includes breathlessness, orthopnea, syncope, and paroxysmal nocturnal dyspnea. It may also present with constitutional symptoms such as fever, weight loss, or systemic symptoms thought to be due to tumor-induced interleukin-6 secretion [3]. It can rarely present with the embolic phenomenon. Asymptomatic cases of LA myxoma are infrequently seen.

Some tumors can invade into local myocardium and cause conduction abnormalities, leading to arrhythmias such as supraventricular tachycardia. In one-third of patients, an early diastolic murmur (called “tumor plop”) can be appreciated during auscultation [4].

A transthoracic echocardiogram is the initial investigation of choice. It is an easily available investigation that can characterize the location, size, and mobility of the lesion. It is not associated with the risk of tumor fragmentation or embolization. An echocardiogram shows a lobulated, echo-dense, noncalcified, well-defined mass attached to the inner surface of the interatrial septum. Left atrial myxoma must be differentiated from other masses in the left atrium like thrombus, metastatic sarcoma, malignant fibrous histiocytoma, etc. In 30%–40% of patients with myxoma embolization of tumor cells can occur [5].

The treatment of choice is surgical excision of the tumor. Due to possible complications like embolization, mitral valve obstruction, or coronary artery occlusion leading to sudden death, asymptomatic tumors are also removed by surgery. According to the literature, the risk of mortality during surgery is very low.

Conclusion

A high index of suspicion with a detailed history and physical examination is needed to make the diagnosis of this condition in asymptomatic or less symptomatic patients. Diastolic murmurs are commonly missed on auscultation. Hence any patient presenting with recent onset heart failure symptoms and a cardiac murmur on examination, a transthoracic echocardiogram should be done as part of the workup. Although left atrial myxomas are benign tumors they can present with a variety of systemic symptoms and life-threatening complications. Prompt surgical removal gives excellent results with a low recurrence rate.
Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient has given his/her consent for his/her images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published, and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

Conflict of Interest: Nil

Financial Disclosure: None

References