

## An Elderly Patient with Left Atrial Myxoma

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### Abstract

Among the primary cardiac tumors atrial myxomas are the most common. It is a benign tumor that is relatively rare. Symptoms of mitral valve obstruction is the classic symptom myxoma; patients often present with features of cardiac failure or malaise. Symptoms of embolism is the second frequent presenting feature. Embolism can occur in several locations common one is cerebral emboli with stroke. Myxoma may also produce constitutional symptoms such as fever, weight loss. It has been observed that young and male patients suffer from neurologic symptoms more, and female patients have more systemic symptoms. In many cases due to nonspecific symptoms, early diagnosis may be a challenge. Left atrial myxoma may present with features of mitral stenosis. As mitral stenosis is still the most common sequel of rheumatic fever in developing countries, family physicians should be aware of the differentials that may cause mitral stenosis like features. A good number of patients having myxoma can be diagnosed preoperatively with echocardiography. A large myxoma occupying in the left atrium producing features of mitral stenosis in a 72 years male was evident in this case. Surprisingly he doesn't have many symptoms for this.

**Keywords:** Myxoma; Left Atrium; Mitral Stenosis

### Introduction

A cardiac myxoma is the most common tumor originating from the heart. About 75% of myxomas are in the left atrium [1]. The clinical presentation varies. Patients may remain asymptomatic or may present with cardiovascular complications and extracardiac manifestation. Myxomas are usually solitary. There are reports of multiple atrial, biatrial, atrioventricular, and biventricular myxomas also. Most of the myxomas range in size between 0.4 and 6.5 cm [2].

Myxomas usually originate from endocardial cells in and around the region of fossa ovalis and are soft, gelatinous, pedunculated. There are often areas of haemorrhage or thrombi in it. Myxomas are slowly growing tumor [3-5].

Most commonly they present with features that mimics mitral valve disease. Tumor prolapsed in mitral orifice may mimic feature of mitral stenosis or features of regurgitation due to tumor induced valve trauma [6,7].

Our patient, 72 years male remained asymptomatic with a large left atrial myxoma till he developed exertional dyspnoea for the past three months and attended medicine OPD.

### Case Report

An elderly male of 72 years presented in medicine OPD with the complaints of exertional dyspnoea for the past 3 months. He develops the symptoms especially in sitting posture when rising from the bed and get relieved when lying down. Walking, working in paddy field which were his routine activities became difficult to carry out. Constitutional symptoms myalgia, low grade fever and weight loss were also present for the last one month. Pulse was regular, blood pressure was 130/90 mmHg. Precordium examination revealed findings consistent with mitral valve stenosis. A loud first heart sound, low pitched “tumor plop”, and a mid diastolic murmur well noticed in the sitting position were the characteristic findings. There were no other notifiable physical findings. Erythrocyte sedimentation rate was 80 mm in first hour and all other parameters of routine examination were within normal range.

ECG and chest X-ray were normal. Echocardiography revealed a large myxoma measuring 4 × 2.26 cm (Figure 1) occupying the left atrium, producing mitral valve orifice obstruction (Figure 2).



Figure 1



Figure 2

He was prescribed to take small doses of diuretics and metoprolol and advised to avoid exertion. As his age was advanced surgical intervention was not preferred in this patient. He was followed up after a month no further deterioration of symptoms was noticed.

### Discussion

Myxomas are the most common benign primary cardiac tumor and mostly they are found in the left atrium. The mean age of presentation with sporadic myxoma is 56 years. About 70% of patients with myxomas are females [1]. The cause of myxoma is still unknown. Excessive proliferation of certain mesenchymal cells and excessive glycosaminoglycans production has been proposed as a cause. Most of the tumors are benign [2]. Myxomas may cause valvular obstruction, disturbance in conduction system of the heart and also result peripheral embolism. Myxomas often are associated with constitutional symptoms which are likely due to synthesis and secretion of interleukin-6. Left atrium is the most common site of myxomas, Myxomas in left atrium commonly prolapse to various degrees into mitral valve orifice, resulting in obstruction to atrioventricular (AV) blood flow mimicking features of mitral stenosis. Sometime myxomas may cause tear of mitral valve leaflet and patient may present with features of mitral regurgitation [2,3]. Sudden onset of symptoms most often related to the patient's body position should raise the suspicion of left atrial myxoma. Most common symptoms with atrial myxomas which obstruct the AV valves are dyspnoea, palpitation, dizziness or syncope when sitting or standing and it usually relieves on lying down. Surprisingly despite of having large myxoma our patient was quite asymptomatic for a long time till his presentation. Sudden death also been reported. The late onset of mitral valve closure resulting from prolapse of the tumor through the mitral valve causes loud first heart sound. An early diastolic sound, "tumor plop" can be heard and it is thought to be produced as the tumor strikes the endothelial wall or its movement is abruptly halted. If the AV obstruction is incomplete, a mid diastolic murmur follows the tumor plop. If the obstruction is severe enough, cardiac output may be compromised [2-4]. Diagnosis of myxomas can be made by 2D echocardiography. More than two decades ago is Effert and Domanig explained 2D echocardiography is the non-invasive procedure of choice for the diagnosis of left atrial myxoma. In echocardiogram the pathognomonic finding is that of a large pedunculated tumor mass traversing through the AV valves with a to-and-fro motion. Large atrial myxomas have been classified by echo appearance as follows [4]:

- Class I-small and prolapse through the mitral valve.
- Class II-small and non prolapsing.
- Class III-large and prolapsing.
- Class IV-large and non prolapsing.

Myxomas have a mottled appearance in echocardiogram. Echolucency in myxomas correspond to areas of haemorrhage within it. Thrombi and infective lesions may also present in a myxoma. In this case, 2D echocardiographic (Figure 1) illustrate the myxoma in the left atrium (size 4 × 2.26 cm) causing obstruction of AV orifice. Mitral valve cusps appeared normal, no evidence of commissural fusion, valve thickening and calcification. So, the resultant feature of mitral stenosis is due to the movement of the myxoma across the mitral valve (Figure 2).

Surgical excision is the treatment of choice and result in complete cure. In 1% to 5% recurrence may occur after resection. Large size of myxoma together with location on posterior left atrial wall may need complete removal of the heart which was followed by "auto transplantation" i.e. reimplantation of the patient's excised heart [7-9].

Mitral stenosis is a common acquired valvular heart disease in Asian developing countries and also in other parts of the world. Physicians finding features of mitral stenosis in their patients should also consider left atrial myxoma as one of the differentials.

### Conclusion

Atrial myxoma is a rare disease. It may present with its paraneoplastic symptoms and clinical signs such as anaemia, fever and findings like mitral stenosis. In the present clinical case, the patient was remarkably well for a long time despite of having a large left atrial myxoma. The commonest means of reaching the diagnosis is echocardiography. A large atrial myxoma requires urgent surgical excision to reduce the risk of associated complications such as thrombo-embolic events.

### Support

None.

### Conflict of Interest

None.

### Bibliography

1. Reynan K. "Frequency of the Primary Tumors of Heart". *American Journal of Cardiology* 77 (1996): 107.
2. Molina JE., *et al.* "Primary Cardiac Tumors Experience at the University of Minnesota". *The Journal of Thoracic and Cardiovascular Surgery* 38 (1990): 183-191.
3. Hanson EC. "Cardiac Tumors. A Current Perspective". *New York State Journal of Medicine* 92 (1992): 41.
4. Charuzi Y., *et al.* "A New Echocardiographic Classification of Left Atrial Myxoma". *American Journal of Cardiology* 55 (1985): 614-615.
5. Finogan RE and Harrison DC. "Diagnosis of Left Atrial Myxoma by Echocardiography". *The New England Journal of Medicine* 282 (1970): 1022-1023.
6. Spencer III WH., *et al.* "Detection of a Left Atrial Myxoma by Echocardiography". *Archives of Internal Medicine* 128 (1971): 787.
7. Talley DJ and Wenger NK. "Atrial Myxoma: Overview, Recognition, and Managements". *Comprehensive Therapy* 13 (1987): 12-18.
8. Bass NM and Sherratt GP. "Left Atrial Myxoma Diagnosed by Echocardiography, with Observations on Tumor Movement". *British Heart Journal* 35 (1973): 1332-1335.
9. Salcedo EE., *et al.* "Cardiac Tumors-Diagnosis and Treatment". *Current Problems in Cardiology* 17 (1992): 73.

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