Case Report

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Left atrial myxoma causing severe mitral regurgitation

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ABSTRACT

Myxomas are the most common benign tumours of the heart, majority of them arise from left atrium. They can have varied presentations, with asymptomatic patients to be picked up in routine screening at one end of spectrum to dangerous embolic manifestations at the other end of the spectrum. We report a case of left atrial myxoma distorting the mitral valve apparatus causing severe eccentric mitral regurgitation. Patient underwent complete surgical excision of the tumour along with mitral valve repair.

Keywords: Atrium, Mitral Regurgitation, Myxoma

INTRODUCTION

Atrial myxomas are the most common primary cardiac tumour, around 75 percent arise from left atrium. Most common site of origin is fossa ovalis. Other sites of origin have also been described. The left atrial Myxoma in this patient was arising from base of left atrial appendage, which is a relatively rare place of origin. Majority of myxomas are solitary tumour, if they are multifocal they would be associated with familial myxoma syndrome. Most common presentation of myxoma is with congestive cardiac failure. Other presentations include constitutional symptoms, features of embolization, rhythm disturbances and sometimes they can be asymptomatic to be picked up in routine screening.

CASE REPORT

A 21-year-old male presented with dyspnoea on exertion, New York Heart Association Functional class 2 for past one year. No history of chest pain, palpitations or syncopal attacks. General physical examination and cardiovascular system examination was unremarkable. An electrocardiogram showed sinus rhythm.

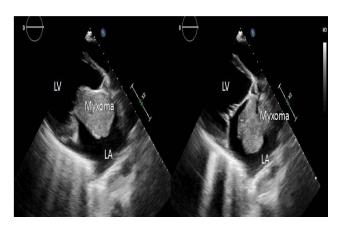


Figure 1: Transthoracic echocardiogram in parasternal long axis view showing mobile Left atrial myxoma measuring 60*38 mm attached to posterior wall of left atrium protruding through the mitral valve during diastole and returning to left atrium during systole.

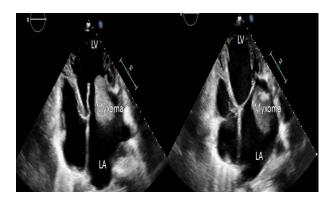


Figure 2: Transthoracic echocardiogram in apical 4 chamber view showing mobile Left atrial myxoma measuring 60*38 mm attached to posterior wall of left atrium protruding through the mitral valve during diastole and returning to left atrium during systole.

A transthoracic echocardiogram (Figure 1 and Figure 2) showed large pedunculated freely mobile echogenic mass measuring 60×38 mm attached to left atrium with severe left ventricular dysfunction (ejection fraction 29%).

The mass was distorting the mitral valve apparatus causing severe eccentric mitral regurgitation. After a multidisciplinary team meeting, surgical excision was planned. Surgical approach was through a median sternotomy and aorto-bicaval cannulation. Special care was taken to avoid manipulation of the left atrium to prevent embolism. The left atrium was opened vertically and parallel to interatrial groove. A large left atrial mass with glistening appearance resembling myxoma was seen arising from base of left atrial appendage protruding across the mitral valve into the left ventricle (Figure 3).

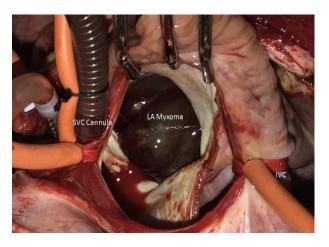


Figure 3: Intra operative picture showing glistening left atrial myxoma arising from base of left atrial appendage and occupying the entire left atrium.

It was excised along with left atrial appendage (Figure 4). The native mitral valve was inspected. The P 2 segment of the posterior mitral leaflet was retracted and fibrosed. Mitral valve repair was done by posterior segment suture annuloplasty using 2-O polyester sutures with pericardial

pledgets. Postoperative transesophageal echocardiogram confirmed trivial mitral regurgitation, and the absence of residual mass. Patient had an uneventful recovery. Histopathological features confirmed the diagnosis of a left atrial myxoma. At the three months follow up he was asymptomatic.



Figure 4: Picture showing left atrial Myxoma with excised left atrial appendage.

DISCUSSION

Myxomas can have varied presentation depending upon the size and location of tumours. Our patient had only breathlessness as presenting complaints. They can mimick both mitral stenosis and sometimes they can cause mitral valve incompetence. Our patient had severe mitral regurgitation because of the extension of tumour into mitral valve leaflets causing retraction and fibrosis of posterior leaflet. There have been even reports of atrial myxoma and unrelated mitral valve disease, where mitral regurgitation is due to intrinsic pathology in the mitral valve and not due to the tumour complex.

Myxomas can be diagnosed by trans thoracic echocardiography most of the times. Transoesophageal echocardiography can also be beneficial especially if the tumour is very small. Computed tomography and magnetic resonance imaging can also aid in the diagnosis.⁵

Diagnosis of myxoma is itself an indication for surgery. Surgery should be done as soon as possible after the diagnosis since patients are at risk of embolization. 8-10 Important surgical principle in the operative field is minimal handling of the cardiac chambers to prevent tumour emboli and complete excision of tumour with a cuff of normal endocardium.

Approach is through the median sternotomy and bicaval cardiopulmonary bypass. Left atrial and ventricular myxomas are approached through left atrium and right sided lesions are approached through right atrium. Our patient had left atrial myxoma with severe mitral regurgitation, so we approached through left atrium and

removed the tumour along with repair of mitral valve with suture annuloplasty.

CONCLUSION

To conclude, atrial myxomas can have wide spectrum of presentations and can be definitely treated by complete excision of the tumour and recurrence of the tumour is rare unless associated with familial complex.

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