



## EXERTIONAL SYNCOPE IN A 38 YEARS OLD MAN

## General Medicine

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## ABSTRACT

Cardiac myxoma is rare but the most common primary cardiac tumor amongst all cardiac tumors, and left atrial origin is nearly 80%. It is responsible for different constitutional symptoms, progressive dyspnea, and systemic embolization. In this report 38 years patients was admitted with exertional syncope, In investigation transthoracic echocardiography demonstrated large left atrial mass encroaching into left ventricle. The mass after operation was diagnosed as myxoma. This diagnosis is very important from the patient point of view as in undiagnosed may be the forerunner of systemic embolization in different parts of the body.

## KEYWORDS

## CASE REPORT:

38 years old security guard came in emergency with history of sudden one episode of Exertional syncope which he never faced before. He told that while he ran upstairs for some work he felt dizziness and fell on the stairs and other colleague caught hold him. There was occasional history of cough with mucoid expectoration but without ant syncope, no history of posture or any straining related syncope, no history of paroxysmal nocturnal dyspnea.

On examination, patient was afebrile having vital signs and jugular venous pressure within normal limit and oxygen saturation in room air was 97%. On auscultation of cardiovascular system, loud first heart sound in mitral area with suspected tumor plop but in supine position there was no murmur. But in standing position there was evidence of mid diastolic murmur in mitral area. Auscultation of chest demonstrated normal vesicular breath sound but no added sound. No evidence of chronic heart failure, like, pedal edema, positive hepatojugular reflux seen.

On laboratory investigation, all hematological and biochemical parameters were normal. Echocardiography demonstrated large 4.9 x 4.8 cm<sup>2</sup> mass in the left atrium encroaching into left ventricle. Left ventricular ejection fraction is 60%. Left atrium is moderately enlarged (Fig 1).

After preanesthetic check-up he underwent cardiothoracic surgery to remove the left atrial mass which was diagnosed histologically as myxoma. During removal it was seen that this tumor was attached to left atrial septum. Patient was discharged after 7<sup>th</sup> day postoperatively with following medications, like, vitamins, aspirin. After two weeks repeat transthoracic echocardiography was performed to see the function of the heart which was shown as normal (Fig 2).

Figure 1

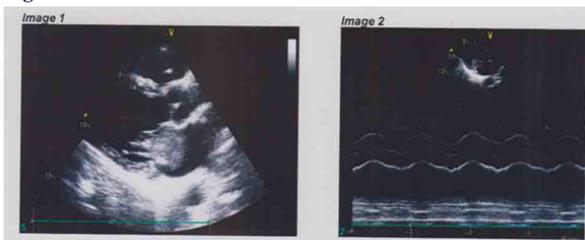


Fig:2



## DISCUSSION:

Atrial myxoma accounts for 0.1% population in the world<sup>1</sup>. 80% of primary cardiac tumor is benign, of these half are benign tumor is atrial myxoma, papillary fibroelastoma and lipoma are the rest in adult and rhabdomyoma and fibroma in child<sup>2,3</sup>. Approximately 80% to 90% of myxoma is seen in left atrium, nearly 12% to 15% in right atrium and rarely from ventricles<sup>4,5,6</sup>. This tumor tissue is composed of mucopolysaccharide tissue containing scattering of cells<sup>7</sup>. This is common in females<sup>4</sup>.

Symptoms of tumor depends upon several factors, like, location of tumor, amount of obstruction of blood flow through the heart, embolization, invasion to the surrounding lung and myocardium along with constitutional symptoms. Systemic embolization is very common in case of left atrial and aortic myxoma<sup>8</sup>. Depending upon the position of the tumor different types of conduction abnormalities, hypertrophy of left atrium, heart failure and syncope may occur. Most common manifestations of atrial myxoma are fatigue, weight loss with cardiovascular features, like, Exertional dyspnea, paroxysmal nocturnal dyspnea, orthopnea, tumor embolization of in cerebral blood vessels leading to infarction producing neurodeficit<sup>9, 10, 11, 12</sup>. This embolization may also produces retinal artery occlusion even sudden death<sup>13,14</sup>. In this case the clinical findings of loud first heart sound and early diastolic sound, tumor plop due to progress of the myxoma into the left ventricle from left atrium. The syncopal attack was due to obstruction of blood flow from left atrium to left ventricle thereby peripherally to the cerebral vessels by the myxoma which is more common in upright position.

Use of postoperative anticoagulation treatment after successful removal of left atrial myxoma is not demonstrated. But there are many case reports in case of removal of right atrial myxoma producing pulmonary embolism as there was incidence of 0.4% to 5% incidence of pulmonary embolism by the fragment of operated tissue during removal of tumor or incomplete surgical resection<sup>1</sup>. This recurrence is due to friability of the tumor tissue and easily detachability from the origin. Usually there is incidence of recurrent embolism from many causes, like, emboli of multiple origin, family history of myxoma (Carney complex) or recurrences from progenitor cells<sup>1, 15</sup>. Carney complex consists of pigmentation in the skin called lentiginos, multiple myxomatous tumor in the heart as well as throughout the body and tumors in the multiple endocrine glands<sup>16</sup>. This complex is responsible for 7% to 10% of cardiac myxoma and recurrence rate is high<sup>17,18</sup>.

## CONCLUSION:

Though cardiac tumor is rare but common cardiac tumor is cardiac myxoma. In absence of any constitutional symptom presentation of exertional syncope must require clinical examination of heart with concurrent echocardiography to exclude primary cardiac tumor to prevent future systemic tumor embolization.

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