



I'm Breathless When I Sit – A Rare Case of Right Atrial Myxoma

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Introduction

Primary tumours of heart are rare across all age groups, with a reported prevalence of 0.001-0.03% in autopsy series. The most common primary tumor of the heart is myxoma. 75% of myxoma occur in the left atrium, and 25% in the right atrium, and rarely in the ventricle. Myxomas are benign neoplasms. They are more common in females. Myxomas are commonly seen between the second to the sixth decade. The size ranges from 1 to 15cm and weigh 15 to 180gms

Case Report

A 48 year old male with no significant past history or family history presented with breathlessness of two week duration. His symptom is of acute onset and he gives the history that he breathless on sitting up position. There is no history of any fever, cough or sputum production. No history of any chest pain, palpitation, orthopnea or PND. There is no history of any pedal edema or facial puffiness or any history of decreased urine output. No history of any progressive abdominal distension. He was completely asymptomatic two week back.

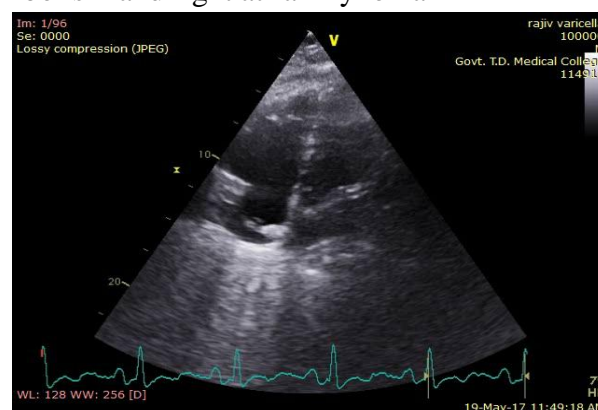
On examination his vitals were normal. General examination also did not reveal any significant abnormality. Examination of his cardiovascular system, in auscultation a diastolic sound was present in the tricuspid area. All other systems were within normal limits.

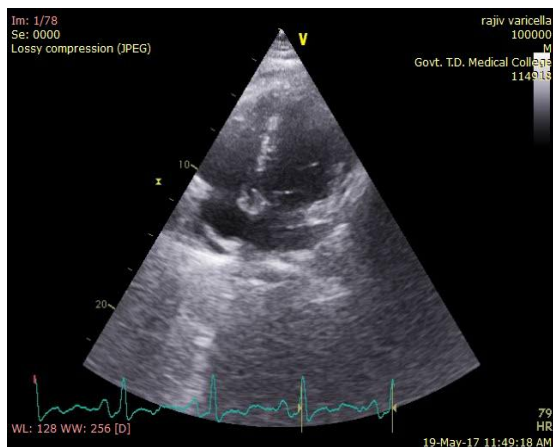
His routine investigations were within normal limits. CXR PA view and ECG were also normal.

With the above mentioned history and physical finding a possibility of myxoma was considered and an echo was done

Echo revealed a 28*17mm mobile mass on the right side of the interatrial septum

The possibilities included thrombus, pulmonary embolism and right atrial myxoma





A CECT Thorax was done and there was no evidence of pulmonary embolism

To confirm the diagnosis we proceeded with a cardiac MRI



It showed a small freely mobile pedunculated mass (28*17mm) on the right side of interatrial septum and was suggestive of right atrial myxoma

Discussion

The most common primary heart tumors are atrial myxomas. Early diagnosis of atrial myxomas are difficult due to the non specific presentations. 38-48% of primary cardiac tumors are myxomas. About 90% of myxomas are solitary and pedunculated. About 70% of myxomas arise from the left atrial cavity. The right atrial myxomas contribute about 25-30%. Most cases of myxomas are sporadic. 10% of myxomas can occur as familial and the usual mode of transmission is

autosomal dominant. Most of the familial myxomas arise from the ventricles and in about 50% there are multiple myxomas.

Grossly the myxomas are round, oval or polypoid. Myxomas are gelatinous with a smooth or lobulated surface. The colour may be white, yellow, or brown. Myxomas can also originate from the anterior atrial wall, posterior atrial wall, or from the atrial appendage. The factors that decide the tumor mobility are extent of attachment to the inter atrial septum and the stalk length. Local recurrence of the myxoma arise as a result of incomplete resection or rarely due to malignant change. Intravascular tumor embolization is common in case of myxomas

Mechanical interference with cardiac function or embolization is responsible for the symptoms associated with myxoma. The symptoms are more pronounced when the myxomas arise from the left-side and when the size is over 5 cm in diameter.

Tumor embolism occur due to the high vascularity and increased friability of the myxomas. Tumor embolism is reported in about 25-35% of cases. The site of embolisation depend on the tumor location (left or right) and also on the presence of intracardiac shunt.

Sudden death can occur in about 18% patients with atrial myxoma. Death is commonly due to coronary or systemic embolization or due to blood flow obstruction at the mitral or tricuspid valve.

Complications of atrial myxoma includes congestive heart failure, arrhythmias, infection, embolization, sudden death, cardiac rupture and myocardial infarction

Investigation are trans thoracic or trans esophageal echo and cardiac MRI. The definite treatment is surgical removal of the tumor

Conclusion

Myxomas possess a diagnostic challenge in the intial stage and we need to have high index of suspicion. Early diagnosis and treatment is very important to prevent the complications associated with it.