

Left Atrial Myxoma with Pre-operative and Post-operative Follow up

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Myxoma is the most of primary tumour of the heart in adults. Majorities of myxomas of the heart are found in the left atrium, followed by the right atrium and ventricle. The actual statistics of LA myxoma in our country is not known but many cases have been diagnosed and operated in many centers of Bangladesh. We found six cases in different age during eight years private practice. Out of these five were female and one male. Because of non-specific symptoms, early diagnosis may be a challenge. Most atrial myxomas are benign and can be removed by surgical resection. Two-dimensional echocardiography (2D) is the diagnostic procedure of choice. We describe herein a patient who had a left atrial myxoma who underwent successful resection of the tumor but the patient developed post-operative complications with smooth recovery.

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Introduction

Atrial myxomas are the most common primary heart tumours.¹ Approximately 75% of these tumors originates in the left atrium, and 15% to 20% in the right atrium, only <10% are located in the ventricle.^{2,3} Most cases are sporadic. Approximately 10% are familial and are transmitted in an autosomal dominant mode. Multiple tumors occur in approximately 50% of familial cases and are more frequently located in the ventricle (13% VS 2%, in sporadic cases).

In the United States (US) based upon the data of 22 large autopsy series, the prevalence of primary cardiac tumors is approximately 0.02% , (200 tumor per million autopsies). About 75% of primary tumors are benign and 50% of benign tumors are myxomas, resulting in 75 cases of myxoma per million autopsies. Approximately 75% of sporadic myxomas occur in female. Female sex predominance is

less pronounced in familial type. myxoma has been reported in patients aged 3 – 83 years. The mean age for sporadic cases is 56 years and the mean age for familial cases is 25 years. Most patients

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with this conditions present clinically with one or more of the triad of cardio-embolism (29%), intra-cardiac obstruction 67% or non-specific constitutional manifestation (25%).⁴ In about 20% of cases of myxoma may be asymptomatic, particularly with small myxoma.³ Here we describe a 70 years old lady with LA myxoma presented to us with constitutional symptoms.

Case Report

A female patient of 60 years old presented to us with gradual weight loss, weakness, anorexia, shortness of breath on exertion and occasional cough with low grade fever. She noticed that she was alright two months before this illness. On examination she is mildly icteric and she had mild anaemia. Here body temperature was 100°F. Her chest examination shows loud first heart sound with mid-diastolic murmur in mitral area. On investigation her haemoglobin was 10 gm/dl, total WBC count 14,000/cmm, bilirubin 1.5 mg/dl, ECG shows atrial fibrillation (fig- 1) and chest radiograph showed cardiomegaly with fullness of pulmonary conus (fig- 2). Initially we thought it may be a case of mitral stenosis with pulmonary infection with jaundice. Subsequently, we did her transthoracic echo-cardiography which demonstrated a well defined mobile non-homogenous oscillatory mass (dimensions, 30 X 33 mm.) with a broad base attached with interatrial septum (fig- 3). Then this patient was referred to a cardiac surgeon. She consulted with a private clinic at Dhaka. She was admitted there and managed conservatively to improve her general condition. Subsequently after doing all pre-operative investigations her open heart surgery was done and the whole mass was excised. The post-operative period was uneventful. All post operative investigations were normal.

One months after operation the patient came to us unconsciousness without any focal neurological lesions (fig- 4). She found hyponatremic and that was corrected properly but she was not improve her consciousness. Latter on CT scan of brain was done and which showed cerebral infarction and treated by a neurologist. Gradually the patient was improved and now she is surviving with good physical and mental state.

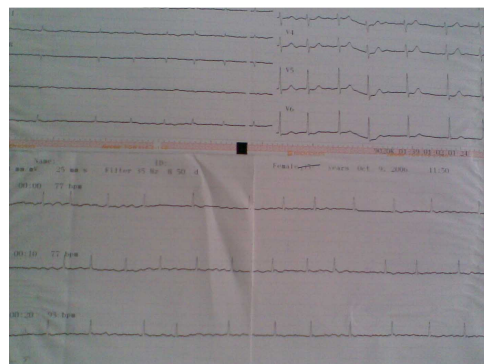


Figure 1. ECG showing atrial fibrillation

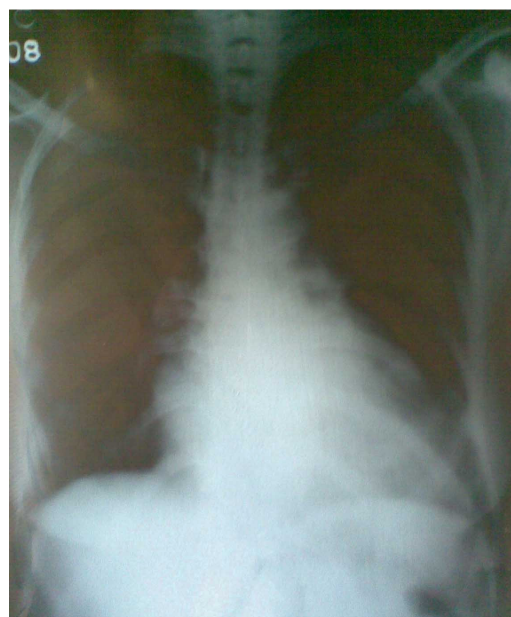


Figure 2. Chest radiograph showing pulmonary conus



Figure 3. Echo-cardiography showing oscillatory mass



Figure 4. Unconscious patient

Discussion

A left atrial myxoma was first described in 1845 prior to 1951.⁵ The diagnosis of intracardiac tumors was made only at post mortem examination in that year, the diagnosis of left atrial tumor was confirmed by angio-cardiography.⁶ Chest radiography may reveal left atrial enlargement and left atrial hypertension and congestion. Transthoracic two dimensional echocardiography and if necessary trans-esophageal approach can be used to determine the location, size, shape, point of attachment and motion characteristics of a myxoma. Supplementary noninvasive diagnostic imaging methods include CT & MRI examination is often prudent as most cardiac masses are metastatic, requiring more extensive evaluation for lymphadenopathy & other visceral involvement. Generally, MRI has better ability to characterize tissue than CT but this may not necessarily be helpful as

many cardiac tumors have overlapping imaging features. Coronary angiogram (CAG) is useful in the diagnosis and evaluation of atrial myxomas by demonstrating the vascular supply to the tumour. Filling defect and total occlusion of coronary arteries, as well as aneurysmal dilatations and narrowing of the distal coronary branches due to tumor emboli, can also be disclosed by coronary arteriogram.^{7,8,9} However, the indication for selective coronary arteriography in patients with myxoma remains the detection of coronary artery disease, especially for patients above 40 years of age, enabling coronary artery by-pass surgery to be performed if needed.

Our patient's left atrial myxoma attached to the middle part of interatrial septum which is the most common site of origin, in descending order of frequency from the posterior atrial wall and the atrial appendages.^{2,10} Considering the age, sex, general condition and clinical status our patient did not perform coronary arteriogram though it was indicated for her. Atrial myxomas have been estimated to come up to 0.5 % of ischaemic strokes.¹¹ In a recently published series the median delay between onset of symptoms & diagnosis in myxoma with neurologic symptoms mainly TIA was 36 months.¹² Our patient presented with cerebral stroke one month after operation which may be of atherosclerotic in origin or from tumor emboli that is not known to us.

Once the diagnosis of left atrial myxoma has been made, operation should be done as soon as possible to avoid the risk of sudden death. Tumor resection usually provides a good long term result. Recurrences of atrial myxomas are rare and usually occur within a 48-months period.¹³ An 8 percent mortality has been reported in patients awaiting operation following definitive diagnosis.¹⁴

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