Case Report

LEFT ATRIAL MYXOMA WITH CONCOMITANT CORONARY ARTERY DISEASE...A RARE OCCURRENCE

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ABSTRACT

Atrial myxoma is the most common benign cardiac tumor. The ages and clinical presentation of patients who have atrial myxoma and coronary artery disease are similar. Simultaneous coronary artery bypass grafting and resection of left atrial myxoma has been rarely reported. We describe a case of 47 year old male who presented to our hospital with unstable angina. On investigation, he was found to have a large left atrial mass along with significant coronary artery disease. The patient underwent surgical excision of the mass and coronary artery bypass grafting. The histopathology report of the mass was compatible with myxoma. The postoperative period was uneventful except successfully treated wound infection and the patient is doing well, with no recurrence of myxoma.

KEY WORDS: myxoma, coronary artery disease, cardiac tumor

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INTRODUCTION

Coronary artery disease may be present in patients who have concomitant valvular heart disease or cardiac tumors.[1] Atrial myxoma is the most common benign cardiac tumor and upto 80 % are located in the left atrium, out of which 75 % involve the interatrial septum. [2] The average age of presentation is between 30 to 70 years.[2] The tumor may cause symptoms of atrioventricular valve obstruction and systemic embolization.[3] Concomitant coronary artery disease has been described, although less frequently.[4]

CASE REPORT:

A 47 years old Asian male, with uncontrolled diabetes and strong family history of ischemic heart disease presented in the outpatient department with CCS class III angina for 6 months and dyspnea on mild exertion (NYHA Class III) for 2 ½ months. His symptoms aggravated for the last 1 week with additional history of orthopnea. He was admitted in the coronary care unit with the provisional diagnosis of unstable angina. Patient was vitally stable. He was given aspirin, clopidogrel, heparin and metoprolol. On cardiovascular examination, he had normal first and second heart sounds followed by an early diastolic sound best heard at the mitral area. His baseline investigations and troponin levels were normal. Chest X-ray PA view showed normal cardiac silhouette and normal lung fields. ECG showed sinus rhythm with 1mm downsloping ST depression in V1 and V2 along with T wave inversion in the same leads. Transthoracic echocardiography incidentally revealed large echo dense 5x4 cm irregular,shaggy mass attached to the interatrial septum and causing mitral valve obstruction, right atrial and right ventricular dilation, impaired RV function with RVSTDI of 9cm/sec and moderate pulmonary hypertension with estimated PAP of 52 mm Hg. There was no segmental wall motion abnormality and LVEF was 55%. His coronary angiogram was performed which showed severe mid stenosis in left anterior descending artery, severe

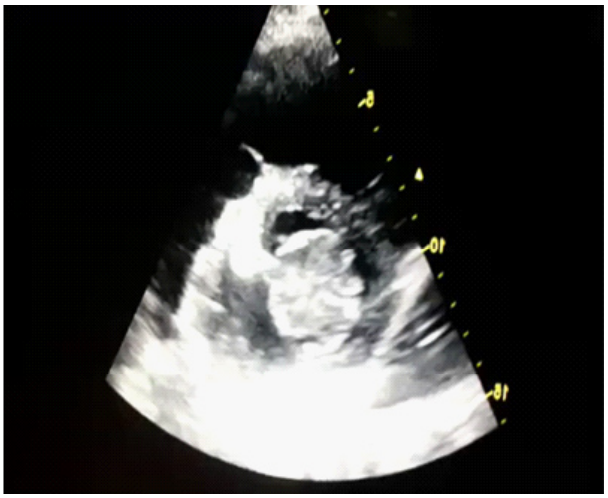

Figure 1. Transthoracic echocardiogram showing a huge left atrial mass

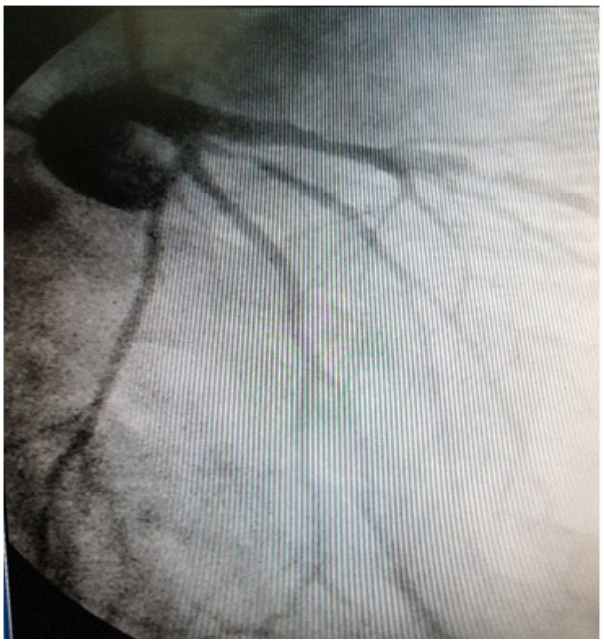

Figure 2. RAO caudal projection showing severe stenosis of high OM branch

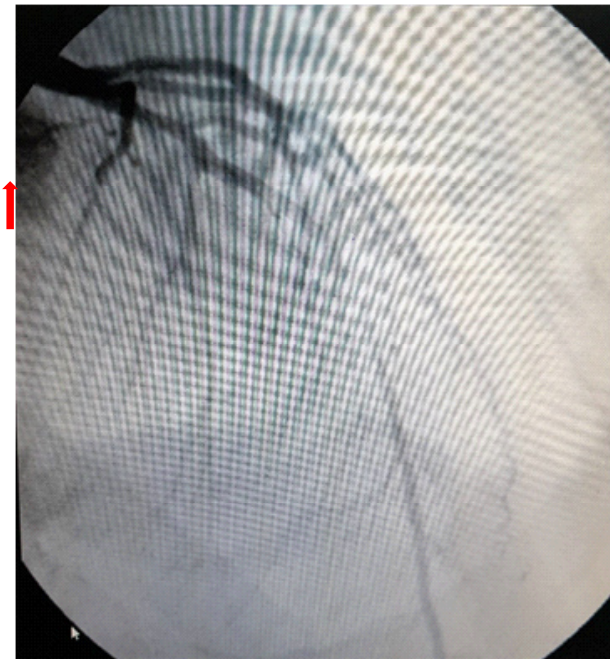

Figure 3. RAO cranial projection showing significant stenotic disease in mid LAD

stenosis in distal AV circumflex artery and severe proximal stenosis in high OM1 branch. He was referred to the Cardiothoracic Surgery department and underwent successful resection of left atrial mass along with coronary artery bypass grafting (CABG) on LAD and high OM1 branch, using saphenous venous grafts. Histological analysis of the tumor confirmed the diagnosis of left atrial myxoma. Post operative echocardiography showed no residual myxoma. The course was complicated by wound infection, which was successfully treated with antibiotics and the patient was discharged home. Since then, he has been symptom free with no evidence of recurrence.

DISCUSSION:

About 85% of myxomas are present in the left atrium, 10% in the right atrium, and 5% in the ventricles. [3] Five percent of patients have more than single myxoma or a polycentric myxoma.[3] Echocardiography remains a useful tool for diagnosis and for topographic definition such as size and location. Transesophageal examination is more accurate than transthoracic examination.[4] Atrial myxomas present with embolic, non specific constitutional or obstructive symptoms.[4] Obstruction mimics AV valve disease which causes symptoms of left ventricular failure leading to the wrong diagnosis of mitral stenosis. [5] The commonest symptom is dyspnea followed by constitutional symptoms, embolization palpitation, syncope, pedal edema and chest pain.[5] Patients can have weight loss, arthralgias, fever, anemia, elevated erythrocyte sedimentation rate, and protein abnormalities. [3] Concurrence of acute coronary syndromes and left heart myxoma should always raise the possibility of coronary embolization. [2] The incidence of coronary artery embolization of myxomas is 0.06% [6] and death has been reported in such cases.The embolization of tumor fragments explains the presence of symptoms of coronary artery disease in these patients. RCA embolization is believed to be present in 47.6% of the cases, while embolism in the LAD and CX arteries account for the 19% and 9.5% respectively[1]. Normal coronary angiogram is present in 23.8% of the cases. [1] Hypercoagulability state and increased levels of interleukin-6 and 8 have been demonstrated in patients with myxoma. [4]The presence of risk factors for atherosclerosis and the high mean age make the presence of coronary artery disease an important diagnostic possibility.Two recent studies showed prevalence of coronary artery disease in patients with myxoma to be between 20.3 and 36.6%.[4] In our patient, the clinical findings and investigations led to the diagnosis of significant two vessel coronary artery disease and left atrial myxoma. This case aims to highlight that severe coronary artery disease and conditions such as a left atrial myxoma may coexist. There is still no consensus when to perform a coronary angiogram in myxoma patients. While some argue that patients should undergo cardiac surgery as soon as the diagnosis is made without prior coronary angiography, based on the risk of sudden death[4,5] others believe preoperative coronary angiography should be performed in patients older than 40 years or in the presence of ischemic symptoms.[4,6] We suggest coronary artery tree to be evaluated in all patients of myxoma especially those with cardiovascular risk factors and ischemic symptoms. The incidental co-existence of such different diseases in the same patient highlights the importance of echocardiographic examination in suspected coronary artery disease especially before proceeding for surgery.

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