

## A Case of Left Atrial Myxoma – A 2 Dimensional Echocardiography Diagnosis:

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**Abstract:** Myxoma (benign tumor) is the most common tumor of the heart. Myxoma can occur in any chamber of the heart but most commonly arises in the left atrium. It is diagnosed using 2 Dimensional transthoracic echocardiography (2D ECHO), and most often occurs as a solitary pedunculated mass in echocardiography. Echocardiography gives information regarding tumor size and attachment and planning surgical excision. Here we present a 70 year old male patient who presented with symptoms of heart failure was diagnosed as a case of left atrial myxoma by 2D ECHO.

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Date of Submission: 26-04-2018

Date of acceptance: 14-05-2018

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### I. Case Report:

A 70 year old male patient presented with complaints of breathlessness on exertion for 6 months duration which is increasing for past 1 month (class III symptoms). Patient gives history of aggravating of symptoms on lying in lateral position. History of giddiness and leg swelling were present on and off for past 3months, no dropout attacks. No history of chest pain, weakness of limbs, fever or decreased urine output. No history of similar complaints in the past. He was not a diabetic, hypertensive or coronary artery disease in the past and he was a chronic smoker

On examination patient conscious and oriented, dyspneic, pallor +, bilateral pitting pedal edema +, pulse – 106/minute, low volume regular rhythm and all peripheral pulses felt. Blood pressure – 90/70 mm Hg and jugular venous pressure elevated. Cardiac examination revealed a tapping apical impulse, first and second heart sound present and a mid diastolic murmur present in the apex. All other areas auscultation was normal. Respiratory system examination – bilateral fine basal crepitations were present. Per abdomen was soft and central nervous system intact. Patient was admitted as a case of heart failure and evaluated. Ecg of the patient showed sinus tachycardia with poor R wave progression. A 2- Dimensional echocardiography was done to find the cause of heart failure. The diagnosis of this case is a pedunculated mass of size 4.1x3.2 cm attached to the interventricular septum of the left atrium prolapsing into the left ventricle during systole - **LEFT ATRIAL MYXOMA.**

### II. Discussion:

Myxoma is a benign tumor and most common primary cardiac tumor accounting for more than half of the cases. It can occur at any age but most commonly seen between 30-60 years age with a female predilection. About 90% of myxomas are sporadic and 10% familial. The familial cases are associated with the carney complex (myxoma, lentigines and/or nevi and endocrine disorders- cushing's syndrome, testicular tumors and pituitary adenoma). The syndrome associated with myxoma are the NAME syndrome (nevi, atrial myxoma, myxoid neurofibroma and ephelides) & the LAMB syndrome (lentigines, atrial myxoma and blue nevi). Myxoma can be seen in any chamber of the heart but commonly present in the left atrium. Usually they are solitary but familial cases may be multiple present in the ventricles also. They arise from the interventricular septum and are pedunculated prolapsing during systole.<sup>1</sup>

Patient present with varied clinical presentation and include symptoms of heart failure, chest pain or syncope attacks. Patients may also present with arrhythmias or conduction blocks. Also there are various case reports of atrial myxoma presenting as symptoms of systemic embolism, commonly occurring to the brain and

the lungs, but can embolise elsewhere. Also patients may present with constitutional symptoms of fever, weight loss, arthralgia, rash or raynaud's phenomenon.<sup>1,2</sup>

Examination patient may have anemia, digital clubbing, features of heart failure and cardiac examination may reveal a mid diastolic murmur in the apex (tumor plop), but in atrial myxomas the first heart sound may be muffled. Ventricular myxoma present with features of subaortic stenosis or subpulmonic stenosis. Patients presenting with constitutional symptoms are often misdiagnosed as infective endocarditis or collagen vascular diseases.<sup>3</sup>

Diagnosis is by 2-Dimensional transthoracic echocardiography (2D ECHO) which provides information about the tumour size and attachment. The tumor size and attachment are important factors necessary for planning surgery. Thus a 2D ECHO is not only useful in diagnosis but also for planning surgical excision. A transesophageal echocardiography can also be used. Computed tomography or Magnetic resonance imaging may give additional information about size, shape and surface of the tumor. Screening of the first degree family members is necessary as it may be familial. Cardiac catheterization was done previously before surgical excision but now-a-days it is no longer recommended . Treatment is surgical excision using a cardiopulmonary bypass. Recurrence after surgery is around 1-2% in sporadic cases and recurrence is high in familial cases. Myxoma may be fatal leading to sudden death and patients with cardiac symptoms should be carefully examined and investigated.<sup>3,4</sup>

**To conclude** patient with cardiac symptoms and cardiac examination of mitral stenosis should be thought of left atrial myxoma as a differential diagnosis and evaluated as delay in diagnosis can lead to emboli phenomenon and even sudden death.

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Dr. A.K.Badrinath "A Case of Left Atrial Myxoma – A 2 Dimensional Echocardiography Diagnosis:." *IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)*, vol. 17, no. 5, 2018, pp 33-34.