Rare Case of Atrial Myxoma with Mitral Regurgitation - Case Report

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ABSTRACT
Atrial myxomas are the most common primary cardiac tumors, typically arising from the left atrium. However, their presentation can vary widely, with mitral regurgitation being a rare but significant complication. This report discusses a rare case of atrial myxoma associated with severe mitral regurgitation in a 45-year-old patient presenting with dyspnea and palpitations. The interatrial septum was connected to a massive, pedunculated mass that prolapsing into the left ventricle during diastole caused considerable regurgitation and occlusion of the mitral valve, as seen by echocardiography. The patient's hemodynamic instability necessitated urgent surgical intervention. The tumor was successfully excised, and mitral valve repair was performed. Histopathological examination confirmed the diagnosis of atrial myxoma. Postoperative recovery was uneventful, with significant improvement in symptoms and echocardiographic findings. The significance of taking atrial myxoma into account while making a differential diagnosis for mitral regurgitation is demonstrated by this instance, particularly in those with unexplained cardiac symptoms.
Early diagnosis and prompt surgical management are crucial to prevent potential complications such as embolization, heart failure, or sudden cardiac death. This case also underscores the role of echocardiography as a vital diagnostic tool in identifying and assessing cardiac masses and associated valvular dysfunction.

1. Introduction

The most frequent primary cardiac tumors[2] are atrial myxomas, which usually start in the left atrium. This report describes a rare case of severe mitral regurgitation in a female patient, age 55, who presented with dyspnoea and exhaustion due to atrial myxoma. A significant, portable mass connected to the interatrial septum[4] was discovered by echocardiography. This mass caused severe mitral valve blockage and regurgitation by periodically prolapsing during diastole through the mitral valve and into the left ventricle.

The patient's worsening symptoms and hemodynamic instability necessitated urgent surgical intervention. The tumor was successfully excised, and mitral valve repair was performed. Histopathological analysis confirmed the diagnosis of atrial myxomarecovery was uneventful, and follow-up echocardiography showed no residual tumor or mitral regurgitation[4]. This case underscores the importance of considering atrial myxoma in the differential diagnosis of mitral regurgitation, especially in patients with unexplained cardiac symptoms. Early recognition and prompt surgical management are critical to prevent severe complications such as embolization, heart failure, or sudden cardiac death. This case also highlights the vital role of echocardiography in diagnosing cardiac masses and evaluating associated valvular dysfunction.

2. Case Report

A formerly healthy 65-year-old woman complained of increasing exertional dyspnoea to her primary care physician six months ago, whichprogressed to grade IV NYHA with exertionalpalpitations, Cough, Chest pain, and progressive fatigue and with no prior similar and significant family history. Clinically she was afebrile and hemodynamically stable with bilateral pitting pedal edema and without any other significant peripheral signs. On cardiovascular examination she was found to have JVP raised, Apical impulse in 7th intercostal space 2cm lateral to the mid-clavicularline,S1, S2 normal, Loud P2 heard, Grade III parasternal heave and Grade3 Pan systolic murmur in a mitral area radiating to axilla, Lungs on auscultation revealed bilateral crackles. In all four

quadrants, the abdomen had typical bowel sounds and was non-tender, soft, and non-distended. Laboratory findings were as follows: Hb10.1 g/dl, WBC 10.200cells/cumm, Platelets 3.25Lakhs/cumm. The results of the electrolyte panel were as follows: K 4.7 mmol/L, Na 139 mmol/L, Cr 0.7 mg/dl, BUN 38 mg/ dl, ESR: 60mm/h. Other labs included: TSH 17.8mIU/l, INR: 1.53 ECG showed sinus tachycardia with features suggestive of left atrial enlargement and left axis deviation. Transthoracic Echocardiogram (TTE) showed a large myxoma affixed to the left atrium's roof,Dilated LA with Severe MR, No RWMA, Mild AR, Severe TR with severe PAH, Normal LV Systolic Function, No VEG/P.E, LV EF -60%. After a diagnosis of left atrial myxoma, the patient's case was forwarded to a cardiac centre for further therapy.

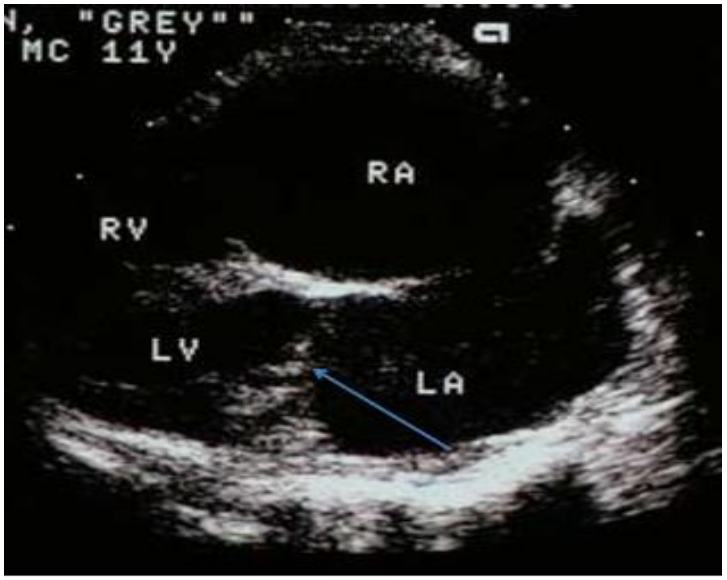

Figure 1: Echo

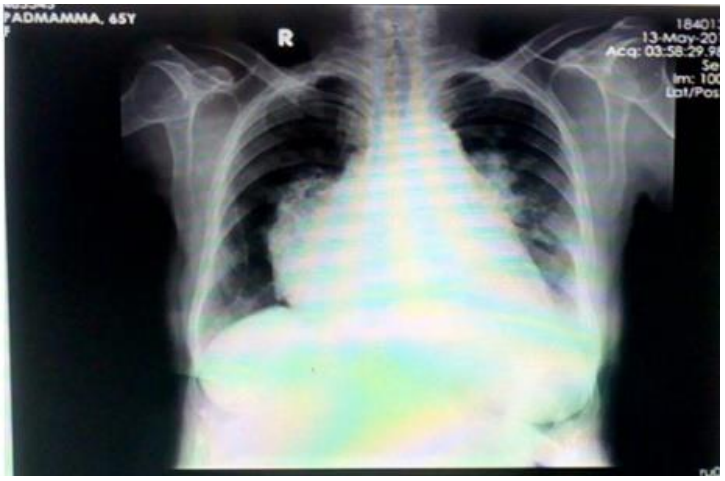

Figure 2: xray

3. Discussion

Myxoma is the most frequent primary cardiac tumour, with a frequency of around 0.001 and 0.28%, of which 75% are benign[1]. Primary cardiac tumours are uncommon. While cardiac myxomas can develop anywhere in the heart, the left atrium—typically around the fossa ovalis—is where 75% of cardiac myxomas emerge[2]. Myxomasare more common in women[1]. About 1 in 10 myxomascan be passed down through families (inherited) and are called Familial myxomas. The majority of myxomasare solitary tumors like in our case, They would be correlated with familial myxoma syndrome if they are multifocal. Even cases of atrial myxoma and unrelated mitral valve illness have been reported, in which the tumor complex itself is not the cause of mitral regurgitation but rather an intrinsic pathology in the mitral valve. Myxoma most frequently manifests as congestive heart failure. It's not always easy to distinguish between cardiac myxoma and mitral regurgitation clinically. Based solely on the medical history and physical examination, a differential diagnosis is typically not

feasible due to the variety, non-specificity, and partial concordance of symptoms. The appearance of myxomas might vary based on the size and location of the tumors.

Our patient had worsening breathlessness mainly, which is the most common presenting complaint, and also the tumormass which is present in the left atrium and is causing incomplete closure of mitral valves, causing palpitations also. Transthoracic echocardiography is considered the "gold standard" for non-invasive diagnosis of cardiac myxoma; however, a more comprehensive characterisation can be obtained by the transesophageal method. However, our patient could not afford the same. The preferred course of treatment is the complete eradication of the tumor. Due to her old age and worsening symptoms patient was deferred from doing surgery.

4. Conclusion

A diagnosis of Left Atrial myxomacausing MR was made and managed accordingly. The present case highlights the uncommon etiology of one of the commonest valvularheart diseases and highlights the need to widen our views when dealing with common scenarios.

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