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RESEARCH ARTICLE

Incidental Presentation of Right Sided Cardiac Myxoma In A10-Year Old Girl

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ABSTRACT

Background; Primary cardiac tumors are rare in children with most being benign. Rhabdomyomas are the most common pediatric cardiac tumors whereas myxomas are less frequent and typically occur in atria. Clinical manifestations depend on tumor size, location and mobility ranging from asymptomatic cases to obstruction, arrhythmias, or embolic events. Incidental detection in asymptomatic children is uncommon.

Case Presentation: A 10-year-old female child was found to have a cardiac abnormality during routine school screening. The child was asymptomatic with no history of cardiovascular or constitutional complaints. Clinical examinationrevealed a cardiac murmur.

Echocardiography demonstrated a 22 × 20 mm mobile mass attached to the anterior leaflet of the tricuspid valve suggestive of a myxoma. There was no evidence of inflow obstruction or associated structural cardiac defect. The patient was referred to cardiothoracic and vascular surgery (CTVS) department for further management.

Conclusion: This case highlights a rare presentation of tricuspid valveassociated myxoma in a child detected incidentally. It emphasizes the importance of routine clinical examination and echocardiography in early diagnosis even in asymptomatic individuals to prevent potentially life-threatening complications.

Keywords; Myxoma, Echocardiography, Asymptomatic, Tricuspid valve, Cardiac tumor.

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Introduction

Primary cardiac tumors in children are rare with significantly lower incidence compared to adults. The majority are benign with rhabdomyomas being the most common in the pediatric population while myxomas are less frequently encountered.

Cardiac myxomas typically arise in the left atrium; however, right-sided involvement especially originating from the tricuspid valve is extremely uncommon. Clinical presentation depends on size, location and mobility of the tumor ranging from asymptomatic cases to serious complications such as intracardiac obstruction, arrhythmias, embolic events and constitutional symptoms. Incidental detection plays a crucial role in preventing morbidity[1].

Case Presentation

A 10-year-old female child was identified to have a possible cardiac abnormality during routine school health screening and was subsequently referred to our hospital for further evaluation.

The child was asymptomatic with no history of breathlessness, chest pain, palpitations, syncope, fever, weight loss, joint pain, swellingor rash. There was no prior history of any illness. Developmental milestones were appropriate for age and there was no family history of similar illness.

On clinical examination, the child was hemodynamically stable. Cardiovascular examination

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Fig.1: Appearance Of Our Patient

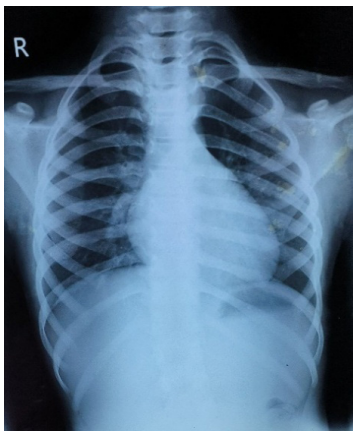

Fig. 2: Chest X Ray Apparently Normal

revealed a pansystolic murmur (PSM) best heard medial to apex with tumor plop. No signs of heart failure,precordial bulge,cyanosis orclubbing.

2D echocardiography revealed a 22 × 20 mm mobile mass attached to the anterior leaflet of the tricuspid valve, suggestive of a myxoma. The mass was mobile having to and fro motion in systole and diastole. Mild tricuspid regurgitation waspresent.Dilated right atrium seen.

In view of the echocardiographic findings and potential risk of complications due to the tumor, the patient was referred to the CTVS department for further evaluation and definitive management[2,3].

Discussion

Cardiac myxomas in children are rare and differ from adult cases in terms of location, clinical presentation and possible association with familial syndromes. While the left atrium is the most common site, right-sided and valvular myxomas are distinctly uncommon.

Clinical manifestations depend on tumor size, location and mobility. Patients may present with obstructive features mimicking valvular heart disease, embolic phenomena due to tumor fragmentation or constitutional symptoms such as fever and weight loss. However, some patients remain completely asymptomatic with tumors detected incidentally during routine examination, as in our case.

2D echocardiography remains the investigation of choice due to its sensitivity, non-invasive nature and ability to define tumor size, attachment, mobility and hemodynamic impact. Myxomas are typically pedunculated and mobile, increasing the risk of sudden obstruction or embolization

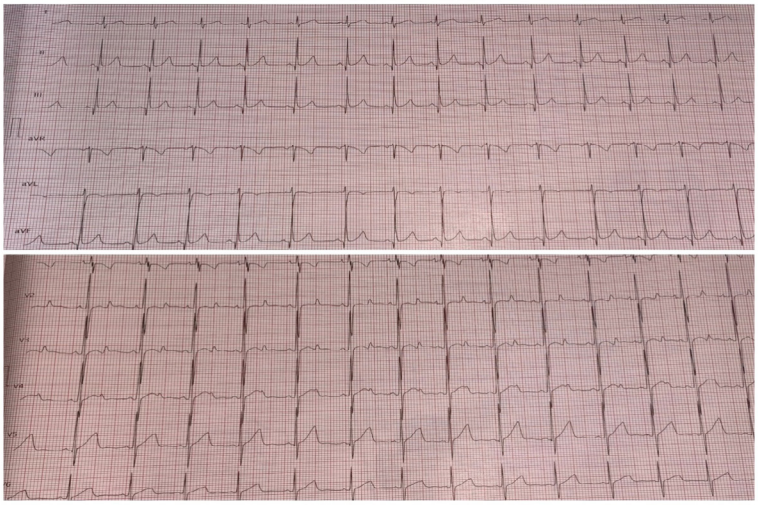

Figure 3: ECG- No Evidence Of Arrhythmia /Hypertrophy /Block

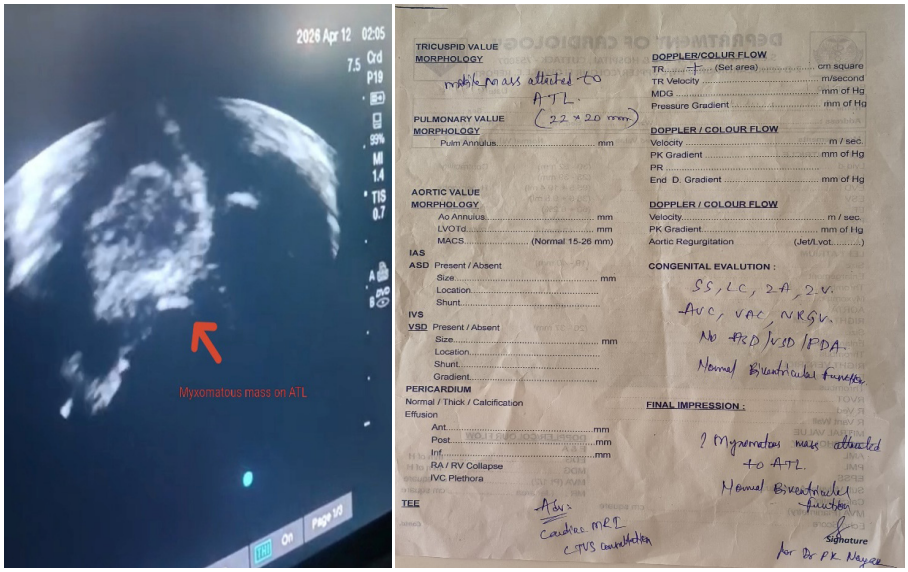

Fig. 4 & 5: 2D ECHO Showing myxomatous mass on ATL

even in asymptomatic individuals.Because of these risks, early surgical excision is recommended once the diagnosis is established to prevent life threatening complications.

Conclusion

This case highlights a rare occurrence of a tricuspid valveassociated myxoma in a pediatric patient, detected incidentally during routine screening.

By getting a pansystolic murmur(PSM) at apex in an adolescent girl one has to think of congenital MR or rheumatic MR.There is no history of any clinical symptoms in early life, thus negate the possibility of congenital MR. No prior history of polyarthritis,carditis and absence of classical radiation of pansystolic murmur to axilla rules out possibility of rheumatic MR. As the child was not febrile neither toxic possibility of Infective Endocarditis(IE) ruled out.Clinically our patientis notfitting to any of the above said causes pointing here the role of 2D-echocardiography which revealed a mass from anterior tricuspid leaflet(ATL) leading to tricuspid regurgitation(TR) which misguided as clinical mitral regurgitation (MR).

Despite the absence of clinical symptoms, the presence of intracardiac mass warrants prompt evaluation and management due to the risk of serious complications. Careful clinical examination and timely echocardiography are essential for early detection of cardiac tumors in children, thereby improving outcomes.Our patient referred to higher centre for surgical intervention and furthercare.

Finally it gives a message that all PSM at apex are not necessarily Rheumatic MR,it could be functional TR due to cardiac tumor as well.Anycardiac murmur detected during clinical examination except hyperdynamic hemic murmur, almost all other cases should go for 2D ECHO evaluation for establishing real pathology.Thisstimulated us to go for reporting this rare case[4-6].

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