International Journal of Science and Research (IJSR)
ISSN: 2319-7064
SJIF (2022): 7.942

Cardiac Tumour with a Rare Presentation

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Abstract: ***A cardiac lipoma is a rare benign tumour that arise from adipose tissue within heart. They can occur in any age group but most prevalent between ages 40 - 60 years. It is usually asymptomatic and discovered incidentally on imaging studies. The treatment of cardiac lipoma depends on the size and location of the tumour as well as the presence or absence of symptoms. In most cases, conservative management with periodic imaging surveillance is appropriate, especially if the tumour is asymptomatic and not causing any significant hemodynamics compromise.***

Keywords: Cardiac lipoma, Epicardial pacemaker

1. Introduction

A cardiac lipoma is a rare benign cardiac tumour comprising only 8 % of all cardiac benign tumours, tend to occur in left ventricle or right atrium but may occur anywhere in the heart including pericardium. Frequently asymptomatic, large tumour cause obstructive symptoms and require surgical intervention[1].

2. Case

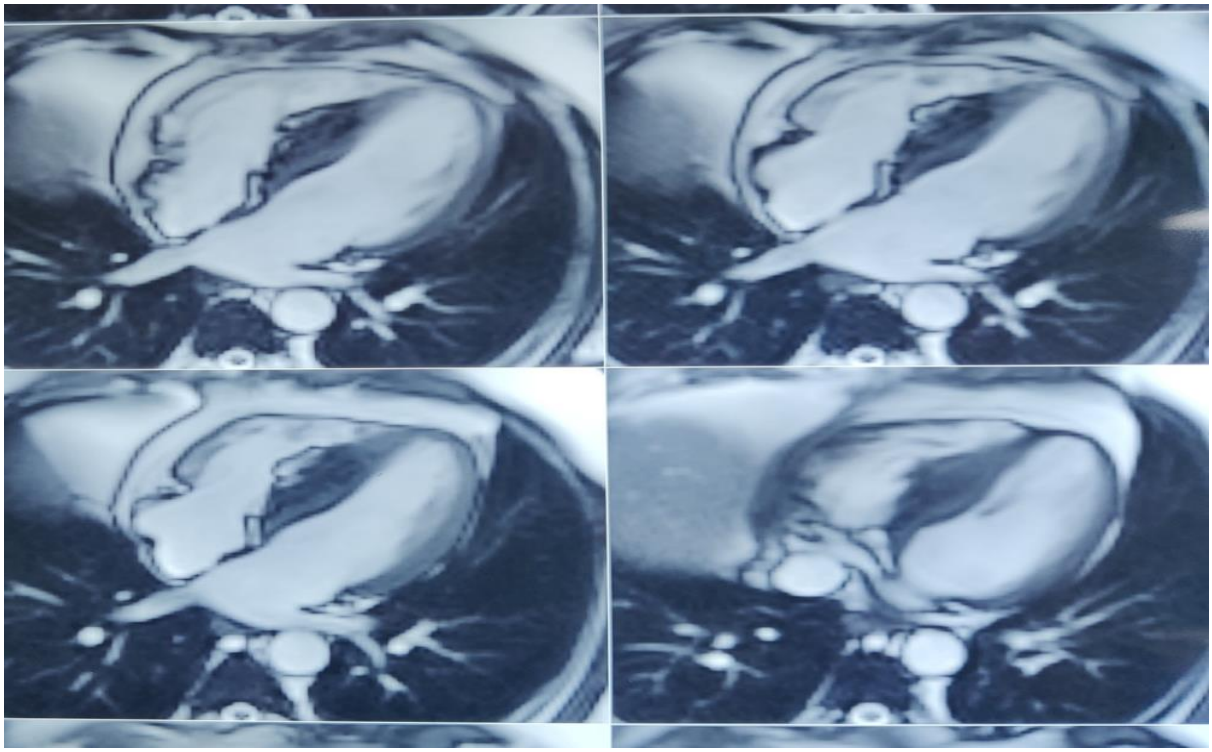
48 year old gentleman with diabetes mellitus, systemic hypertension and hypothyroidism presented with fatigue and giddiness since 2 months. Blood pressure was 140/80 mmhg, heart rate was 40 bpm, cardiovascular examination was within normal limit and no abnormal finding in others system.

An electrocardiogram (ECG) showed sinus bradycardia with right bundle branch block. A transthoracic echocardiography (Table 1) revealed a well defined, homogenous, echogenic sessile mass in the right ventricle septal. The mass was approximately 3 x 3.1 cm with no significant right ventricle outflow obstruction.

Table 1: Echocardiography

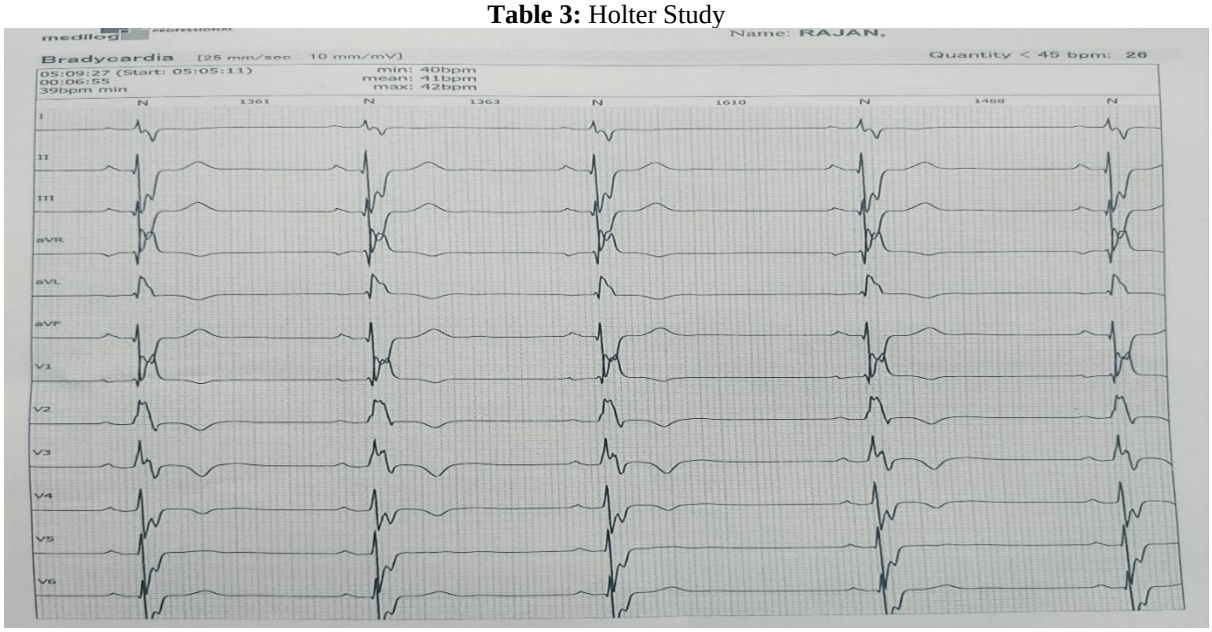
A cardiac MRI (Table 2) was performed which confirmed the presence of a mass in the right ventricle. The mass was isointense on T1 – weighted images and hyperintense on T2 – weighted images, consistent with a cardiac lipoma.

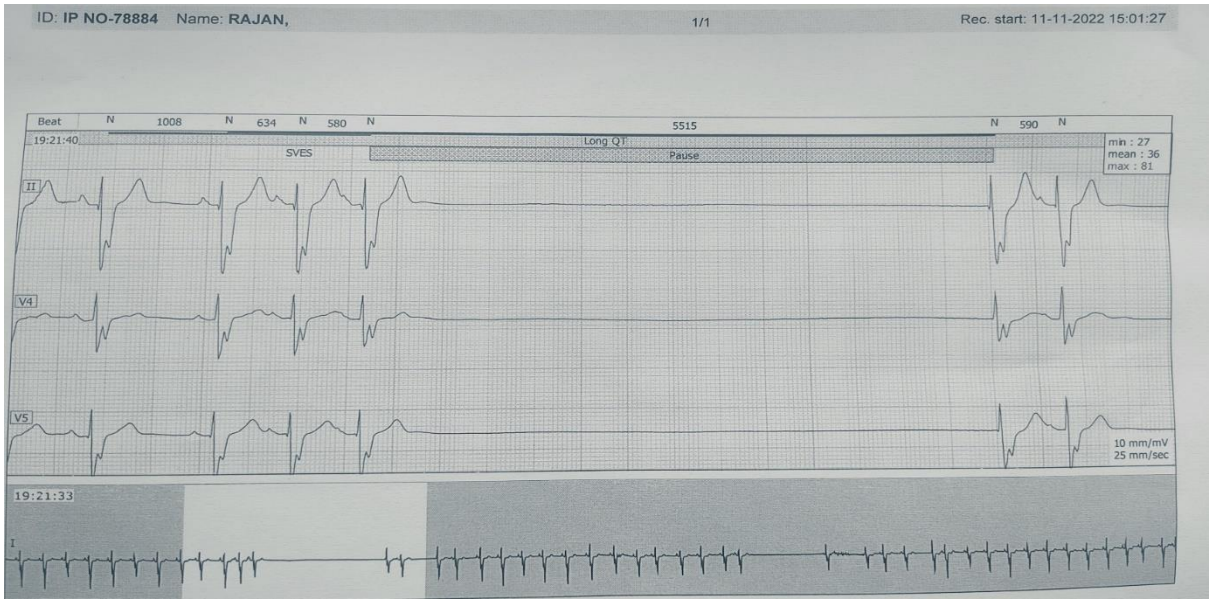
Table 2: CMRI



In view of symptomatic bradycardia, holter (Table 3) monitoring was performed revealed 13 episodes of pause greater than 2.5 seconds with maximum RR interval of 5.5 seconds and multiple episode of sinus bradycardia with minimum heart rate of 33 / min.

Table 3: Holter Study





3. Discussion

A cardiac lipoma is a rare benign tumour that arise from adipose tissue within heart. They can occur in any age group but most prevalent between ages 40 - 60 years. It is usually asymptomatic and discovered incidentally on imaging studies such as echocardiography, computed tomography (CT), or cardiac magnetic resonance imaging (MRI).

Most cardiac lipoma are small and do not cause symptoms. However, larger tumours can cause symptoms such as palpitations, shortness of breath, chest pain or syncope. In rare cases, a cardiac lipoma can compress adjacent structures, leading to arrhythmia, heart failure or sudden death[2, 3]. The diagnosis of a cardiac lipoma is usually made on imaging studies, such as echocardiography, CT, or MRI. The tumour appears as a well defined, homogenous, echogenic mass with attenuation characteristics similar to adipose tissue [3].

The treatment of cardiac lipoma depends on the size and location of the tumour, as well as the presence or absence of symptoms. In most cases, conservative management with periodic imaging surveillance is appropriate, especially if the tumour is asymptomatic and not causing any significant hemodynamics compromise. Surgical resection may be considered for larger tumour or those causing symptoms or hemodynamics compromise[4]. In this case the patient was advised for excision of mass and epicardial permanent pacemaker implantation.

4. Conclusion

Cardiac lipoma is rare tumour that may present with nonspecific symptoms. Imaging studies such as echocardiography and cardiac MRI, are useful in the diagnosis and management of these tumours. In most cases conservative management with periodic imaging surveillance is appropriate

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