University Journal of Medicine and Medical Sciences

ISSN 2455- 2852 Volume 2 Issue 6 2016

A CASE OF MULTIPLE CARDIAC LIPOMAS

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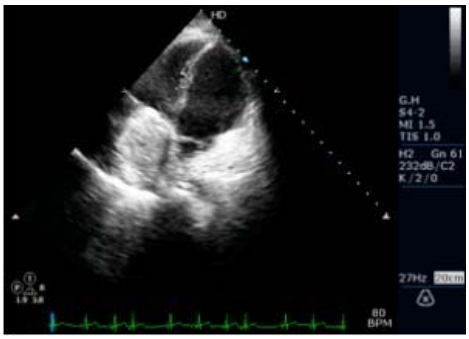
Abstract :
Primary tumors of the heart are rare. They are not easy to diagnose clinically and differ in regard to clinical manifestations, size, morphology, location, and radiological findings. Of the primary cardiac tumors, benign lipomas are second most common primary neoplasm of heart in adults next to myxomas. Lipomas account for 10 of all cardiac neoplasms and accounts for 14 of benign cardiac tumors and are often asymptomatic but may produce symptoms due to obstruction. Here we report a case of an asymptomatic female who was incidentally found to have mass lesion in the right atrium which was subsequently operated and was found to be lipoma in histopathological analysis.
Keyword : Multiple lipoma of Heart, Right atrial mass, Cardiac tumours

Case report:

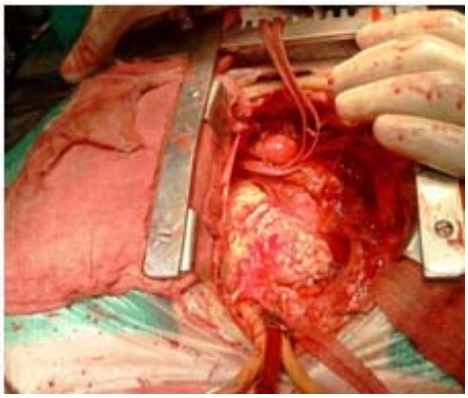
A 50 year old female came to our department for general health check up. She was asymptomatic, normotensive and non diabetic and had good functional class of exercise capacity. Her blood investigations were within normal limits.

As a routine, ECG and Echocardiogram was done. Her ECG was normal. Echocardiogram showed large right atrial echogenic mass almost filling the right atrium but not obstructing flow across tricuspid valve. Also another small mass of 3 x 3 cm arising from the epicardial region posterior to Left Atrium without cavity obstruction or valvular abnormality. Another mass of around 2 x 3 cm arising from the anterior region of LV without causing obstruction.

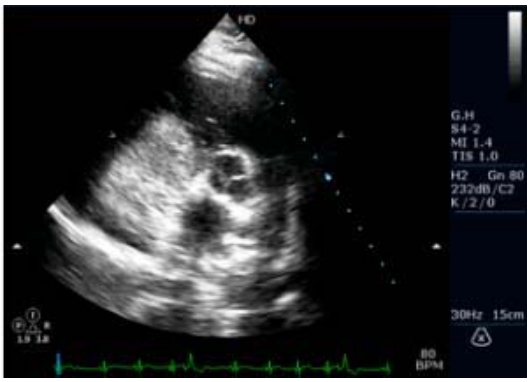


apical four chamber view

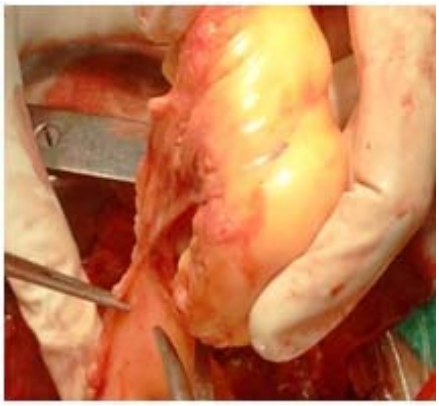
modified parasternal long axis para sternal short axis view



intra op picture



A provisional diagnosis of cardiac tumour was made. She underwent surgery for removal of the mass. During surgery, on gross visualization the size of the mass was around 10 x 5cm arising from free wall of RA occupying 2/3rd of cavity. It was well encapsulated and lobulated, sparing right atrial appendage and tricuspid valve.



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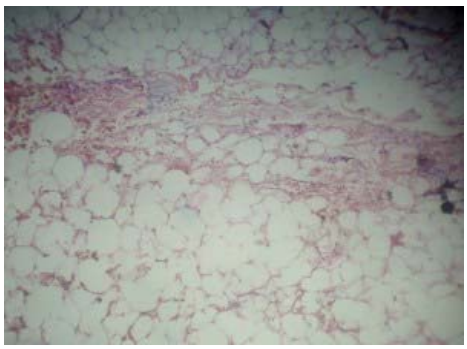

Histopathology

Right atrial mass was resected along with its free wall and it was reconstructed with augmentation pericardial patch. There was another small mass 2 x 3 cm lipomatous mass over LV near LAD from epicardium without causing any obstruction and another mass around 2 x 2 cm arising posterior to left atrium in epicardial region, so left undisturbed. Histopathological analysis revealed mature adipose tissue with no cellular atypia. Fine fibrous trabeculae traversing this adipose tissue were also seen. The surrounding muscle fibres were showing degenerative changes because of the compression by the tumour. Patient is in our follow up. No recurrence was noted in right atrium and other areas show no increasing in size of tumor. Periodic ECHO is being done for detecting any

recurrence of the tumor.

Discussion:

Cardiac tumors are rare tumors. Most of them do not produce symptoms. Before era of modern methods of investigation, they were predominantly incidental findings during autopsies/ surgery. They are of two types primary/ secondary{1} Primary tumors are benign or malignant constitutes 10% of all cardiac neoplasms. More common tumor is secondary which is 20 times more common than primary tumors. Of the primary tumors 75% are benign, only 25% malignant. Malignant tumors are difficult to treat due to its aggressive and infiltrative course. Most common benign tumor of heart in adult is myxoma followed by lipoma and papillary fibrous elastoma. In children, the most common benign tumor of heart is rhabdomyoma.{2}

Cardiac lipomas are 50 times less common than myxomas and usually presents with lipomas of other tumors. They are basically divided into two major groups. Primarily on the basis of degree of encapsulation – lipoma and lipomatous hypertrophy of atrial septum. It can occur sporadically at all ages with equal frequency in both sexes. In our case, the patient was female, 50 yrs old. Molecular and genetic basis of cardiac lipomas are elucidated. Liopomas from other body sites such as skin frequently show cytogenetic abnormality involving chr12q15. Lipomas can be asymptomatic depending on the nature and location of tumor with variable clinical presentation.{3} They can present at any site either atrial or ventricular surface, most commonly originating from sub epicardial or sub endocardial lesions, although intramyocardial lesions have been reported. Most of the lipomas are sessile or polypoid. In our case, lipoma presented at both subendocardial at right atrial site and subepicardial at left atrial and left ventricular site4. They can present as signs of intracavitary obstruction interfering mechanical function of heart producing symptoms of heart failure such as dyspnoea, subepicardial tumors producing pericardial effusion or compression of heart, intramyocardial lesion producing electrical disturbances such as arrhythmias, angina pectoris, heart valve dysfunction, flow obstruction of IVC or SVC, embolism and or phrenic nerve compression. Widespread use of non invasive technique has lead to early detection of cardiac tumors. Echo is a non invasive and sensitive method for detection of tumor, its size and its location {5,6}

Prognosis for these patients is excellent with resectable tumors epicardial or endocardial. Recurrence is very low for completely resected and also for sub totally resected tumors. Patient is in our follow up. No recurrence was noted at Right atrium and other areas show no increasing size of tumor. Periodic echo is recommended to examine the recurrence of tumors.{7}

Lipomas of the heart are benign primary tumors of the heart. They are often asymptomatic and present due to obstructive symptoms. Patient needs surgery when symptomatic and the recurrence is low. We report this case for its rarity.

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