A CASE OF LEFT VENTRICULAR HEMANGIOMA

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Abstract:
Primary benign vascular tumors of the heart are rare. They are hemangiomas, lymphangiomas and hemangiendotheliomas. Of the three, lymphangiomas are very rare and hemangiomas occur frequently(1). 35yr old male with atypical chest pain was diagnosed to have mass with heterogenous opacity in left ventricle by echocardiogram. It turned out to be hemangioma on histopathologic examination.

Keyword: Hemangioma, Tumor blush, Cardiac tumor

CASE REPORT: 35 year old well built normotensive and euglycemic male presented with diffuse nonspecific chest pain, unrelated to exertion and not associated with breathlessness or sweating of 1 year duration. He had no family history of coronary artery disease. His routine biochemistry and lipid profile were within normal limits. His ECG and Chest X-ray were normal. Echocardiogram revealed a large heterogenous mass attached to the inferolateral wall and apex of left ventricle measuring 4 cm x 3 cm. Coronary angiogram revealed tumor blush from the diagonal branch of left anterior descending artery. The tumor was partially excised and patient is in our follow up. Histopathologic examination revealed cavernous hemangioma. Periodic echocardiographic examination is recommended to look for recurrence of tumor growth.
DISCUSSION:
Cardiac hemangiomas accounts for < 2% of primary cardiac neoplasms\(^{(2)}\). They represent rare non myxomatous benign tumor of the heart which are more frequently located in the anterior wall of right ventricle and less likely in the lateral wall of left ventricle and is more often nodular and isolated\(^{(3)}\). Cardiac hemangioma can occur at any age, reported in few months of age to seventh decade of life \(^{(1)}\). There is no gender predilection. Etiology is not known. This tumor has the potency to recur.
Symptoms depend on nature and location of the tumor with variable clinical presentation. Patient can present with palpitation\(^4\), arrhythmias\(^1,5\), heart failure\(^1,5\), pericardial effusion\(^6\), left and right ventricular outflow tract obstruction\(^7\), pseudoangina\(^9\), cerebral embolism\(^5,8\), in extreme cases sudden death, Kassabach Meritt syndrome, hemangioma of face, skin and gut. Widespread use of non invasive technique has contributed to the early detection of cardiac tumors. Echo is a sensitive non invasive method for the detection of tumor with hemangioma appearing typically as a hyperechoic lesion\(^10\). In our patient echo showed hyperechoic heterogenous mass attached to the left ventricular inferolateral wall and apex. Coronary angiography revealed tumor blush\(^5,10\) arising from diagonal branch of Left anterior descending artery. Left circumflex was normal and Right coronary artery was ectatic. A tumor blush is fine enhancement of tumor by contrast agents representing abnormal new vessel formation feeding the tumor. The tumor blush has been previously described in variety of cardiac tumors including hemangioma, myxoma, pheochromocytoma\(^11\). Coronary angiography plays important role in preoperative assessment of cardiac tumor to evaluate feeding arteries arising from coronary vessels to exclude coronary artery disease. This information is necessary to plan the operative treatment. In cardiac magnetic resonance, cardiac hemangiomas appear as masses with intermediate signal intensity on T1 weighted images and hypotensive signal on T2 weighted images and there may be rapid enhancement during infusion of contrast agent\(^12\). In our patient, MRI showed similar findings. By gross appearance, cardiac hemangiomas can range from <1cm to 8cm in size in intracavitary, intramural, epicardial or pericardial locations. This tumor occurs commonly in ventricles, rarely in atria. Multiple tumors are seen in 30% of cases\(^13\). In our patient the size of the tumor was around 4.75 x 2.95cm and it was seen intramurally attached to inferolateral wall and apex of left ventricle. It was single and not well demarcated. So, surgical resection is difficult\(^1\). Histology of cardiac hemangioma will be similar to hemangioma arising at any other site. In our patient it was cavernous hemangioma. Cavernous hemangioma will be multiple thin or thick walled dilated vessels\(^10\). This tumor may not show rapid signal enhancement with administration of contrast material because of slow blood flow. Prognosis is excellent with resectable tumors. In asymptomatic patients, if the tumour is located in hemodynamically insignificant location, it may be left alone. It may regress sometimes. In complex and potentially hazardous hemangiomas excision is required. Radical resection is necessary because of potency to recur\(^9\). In our patient, the tumor was partially resected in our patient and he is in our regular follow up. Periodic echocardiographic examination is recommended to look for recurrence of tumor growth. Follow up at 1year, 2D echo showed tumor has regrown to original size.

**Review of Literature:**


