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LEFT VENTRICULAR MYXOMA WITH CORONARY ARTERY DISEASE PRESENTING AS STROKE - A CASE REPORT

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ABSTRACT

Myxoma is a common cardiac non-malignant tumour arising mostly from the left atrium (75%), right atrium (10%) and the rest equally between right and left ventricles. Myxoma in the left ventricle is a very rare phenomenon. We describe the case of a 50yrs old patient who had left ventricular Myxoma presenting as stroke and subsequently resected successfully. The patient also underwent a CABG in the same setting. LV myxoma with coronary artery disease and presenting as stroke has not been described in medical literature to the best of our knowledge.

INTRODUCTION

Cardiac Myxoma is a primary benign tumor of the heart. Observed for the first time in 1845 by a British surgeon, cardiac myxoma was removed successfully for the first time by a Swedish cardiac surgeon Clarence Crawford.[1] Since then cardiac myxomas are being diagnosed increasingly due to advances in investigative modalities. A left ventricular myxoma is the rarest of all the intra cardiac myxomas with very few cases described in literature. To the best of our knowledge,an LV myxoma with concomitant coronary artery disease and stroke has not been described in literature previously.

CASE REPORT

A 50 years old patient, working in a super store presented to the local hospital in Kingdom of Saudi Arabia, with right hemiplegia and aphasia. He was evaluated for the paresis with baseline investigations and MRI brain, CT Angiogram (Extra cranial/Neck/Carotid), Cardiac MR (Figure 1a and b), ECHO and lipid profile. He had a left Occipito-Temporal and a right frontal infarct on MRI brain (Figure 2a and b). CT Angiogram of intra and extra cranial circulation was normal. The ECHO revealed a highly mobile mass in the LV Apex.

The patient presented to us one month later. The patient was investigated. ECHO was repeated and an LV mass was found, highly mobile and pedunculated. It also revealed mild to moderate global hypokinesia with moderate LV systolic

dysfunction. The TEE showed the mass to be located in the apical part of antero-lateral region, 19×38 mm in size and highly mobile with potential for embolization.Keeping in view the ECHO findings and age of the patient, a coronary angiography was done which showed tight mid stenosis in the mid Circumflex artery.

A CABG with exploration for LV Mass was planned. The patient underwent surgery with cardiopulmonary bypass using tepid blood cardioplegia and a separate IVC and SVC cannulation. The left ventricle was approached through an RA, IAS, LA and Mitral valve.

The mass was a yellowish white pedunculated structure occupying about 50% lumen of the LV. Per op size was about 2×3 cm. It was removed in piecemeal. The overlying myocardium was thickened and was resected too. The defect in myocardium was closed with Dacron patch. All the chambers of the heart were explored for additional myxomas and found clear. Copious irrigation with normal saline was done to wash any fragment of the tumor.

A single great saphenous vein graft was applied to the circumflex artery. The rest of the coronaries were found normal.

Histopathology of the biopsy specimen revealed a Myxoma with areas of degeneration and haemorrhage.

The patient had an uneventful post op course and was

Figure 1a: Cardic MR Showing LV Myxoma

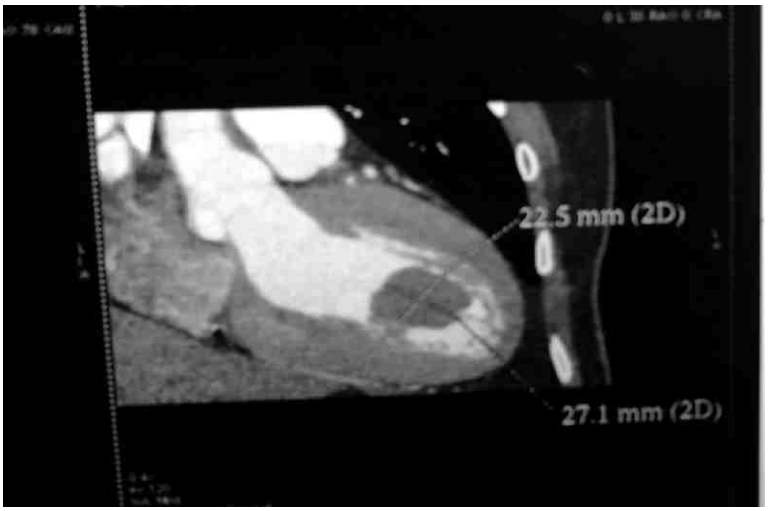


Figure 1b: Cardic CT Showing LV Myxoma

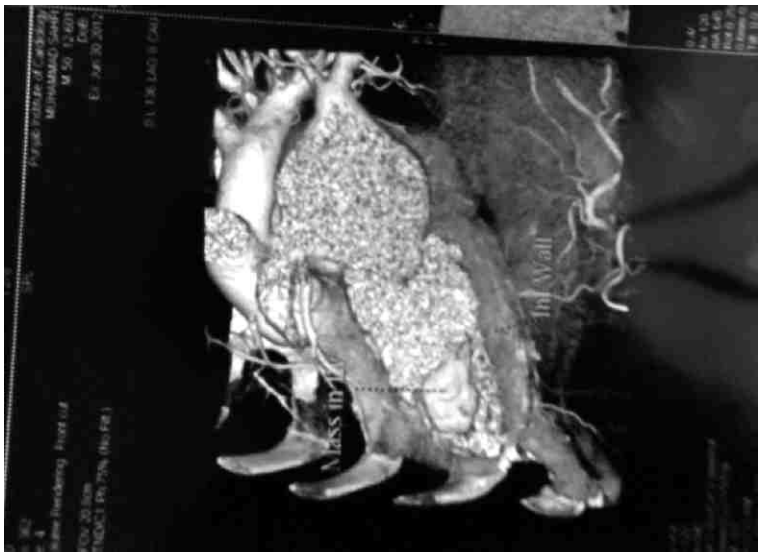


Figure 2a: Occipito-Temporal and a right frontal infarct on MRI brain

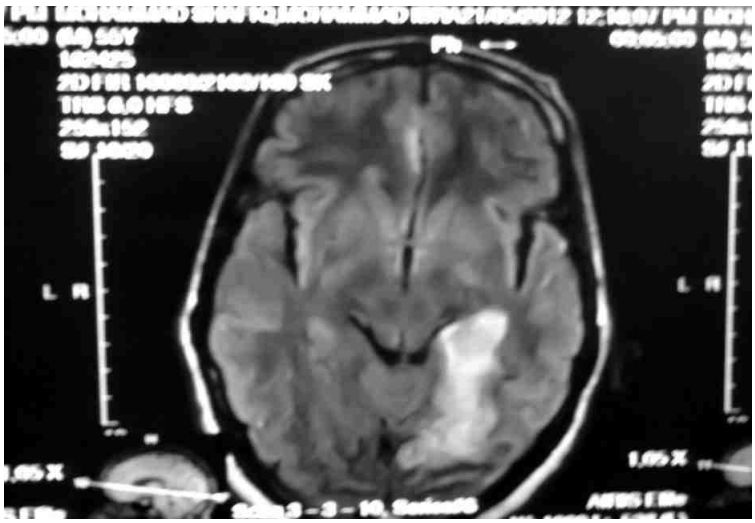
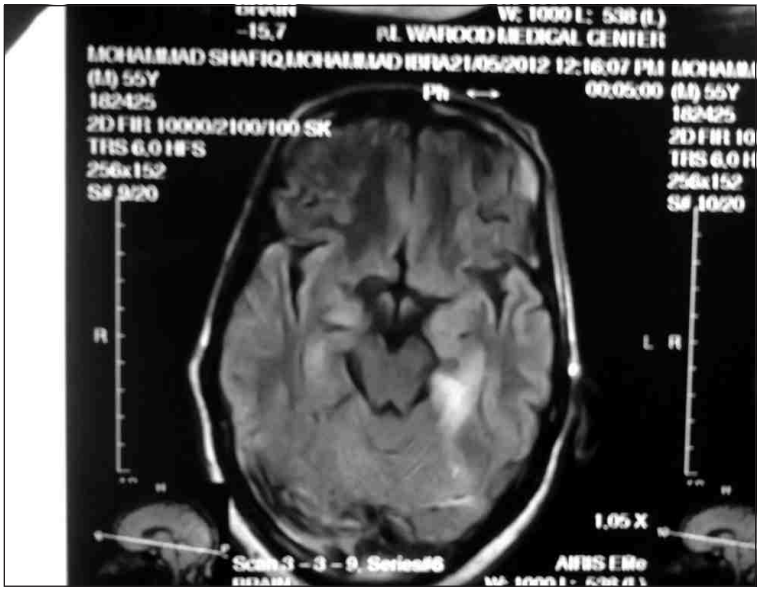


Figure 2b



discharged 6 days later. At one month follow up the patient was doing well.

DISCUSSION

Cardiac myxomas the most common tumor of the heart, with an estimated incidence of 0.5 cases per million people per year.[1]

The occurrence of myxomas in left & right atrium is 75 % & 20% respectively. Occurrence in the left ventricle is very rare though with< 4% incidence.However, it can appear anywhere in the heart and may occupy more than one chambers.[2]

Cardiac Myxoma can present with a classic triad of embolism, intra-cardiac obstruction and constitutional symptoms. Approximately 80% of individuals present with one component of the triad, yet upto 10% may be asymptomatic even with mitral myxomas, arising from both atrial & ventricular sides of the anterior mitral leaflet.[2,3]

About 26.5% patients with Myxoma can present with embolism.[4] Left Ventricular Myxomas have a higher rate of embolization to the cerebral circulation (64%) than Myxomas in other locations.AmbreenMoatasim*et al*reported one case where an LV myxomaembolised to skin causing ulceration.[5]

Very few cases have been reported in literature where left

ventricularmyxoma resection was accompanied by a coronary artery bypass grafting.[6,7] A thorough search of the literature using databases like Ovid, Pakmedinet.com, Embase, Pubmed yielded no result showing left ventricular myxoma with concomitant coronary artery disease and stroke.

Our patient underwent resection of the LV myxoma and a coronary artery bypass with a great saphenous vein graft to the Circumflex coronary artery. The patient tolerated both procedures well. While subjecting the patient to both procedures at a time, we should resect the tumor first and then go for grafting of the coronary. That is, the heart shouldn't be manipulated before cross clamping the aorta so that we avoid tumor fragments embolization. Timely resection of the tumor is important to prevent embolic phenomonen in the future.

Surgical management is the treatment of choice for myxomas but open heart surgery immediately after cerebral embolisation is risky. One school of thought considers immediate surgery as the treatment, as recurrent embolisation can be fatal.[8] The recurrence of Myxoma has been reported to be less than 2% on most series.[9] Theshort- and long-term prognosis is excellent: in three series, the rate of operativemortality was 0 to 3 percent.[10,11,12] Coronary arteriography is an undisputed component of the preoperativeevaluation of patients over 40 years of age, to rule out concomitant coronary artery disease. Arteriography may show that tumor vessels are supplied from branches of the left or right coronary artery.[13]

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