CASE REPORT

A CASE OF STRESS INDUCED CARDIOMYOPATHY (TAKITSUBO SYNDROME) POST EXCISION OF LA MYXOMA IN A FEMALE PATIENT

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CASE REPORT: A 54 year old female patient was seen in pulmonary medicine outpatient department with complaints of postnasal drip for 6 to 7 years and difficulty in breathing for past 2 years, progressive in nature and with moderate exertion and relieved by rest. No history of PND/Orthopnoea. History of headache was present for 2 months and relieved with rest and painkillers. No history of palpitations and chest pain.

Patient had history of asthma and was on tablet salbutamol and steroid nebulisation during periods of acute attack. Patient is not a known hypertensive, diabetic mellitus, seizures, bleeding diathesis, pulmonary tuberculosis, TIA or stroke. No similar complaints in family members. Patient is married and has 3 children alive and healthy. She had undergone hysterectomy 4 years back for dysfunctional uterine bleeding.

Clinically patient was conscious, comfortable, oriented, afebrile. No pallor, cyanosis, Icterus or pedal edema. Saturation was 100% without O₂. Heart rate was 84/min and BP was 110/70 mmHg. Cardiovascular examination was normal. Respiratory system revealed rhonchi and occasional basal crepts. Abdomen was normal and CNS system was normal without any neurological deficit.

Investigations were done and blood investigations were within normal levels and eosinophil count was normal. Blood sugar, urea, creatinine and serum electrolytes were within normal levels. X-ray chest was normal. ECG was normal with sinus rhythm and no ST-T segment changes.

ECHOCARDIOGRAPHY: Left Atrial mass of size 3.5cm * 3.27 cm was present attached to floor of left atrium. No LA/LV dilatation. Normal cardiac valves. No pulmonary hypertension. LVEF was 64%.

Angiogram done showed normal Epicardial coronaries.

PROCEDURE: Under GA, midline sternotomy was done, pericardial patch harvested after opening pericardium. Systemic heparinisation given and standard aorta bicavalcanulation was done. Core cooled to 32 degrees centigrade and aorta was cross clamped. Plegic arrest of heart was done and RA opened and interatrial septum was opened. A mass of size 3*3 cm was seen attached to the floor of the LA and the same was excised without any spillage and sent for HPE. A thorough wash of LV cavity was done. Interatrial septum was closed using harvested pericardial patch using 4-0 prolene sutures. LA deairing was done. Core rewarmed to 33 degree centigrade and cross clamp removed. Heart picked up in normal sinus rhythm without defibrillation. RA was closed using 5-0 prolene. Heparin was neutralized with protamine. Adequate hemostasis was obtained. Decannulation done. Mediastinal drains were kept and wound closed in layers.

Patient had stable hemodynamics and was shifted to CT-ICU ward. Patient was extubated after 4 hours of elective mechanical ventilation.

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On post-operative day 2, patient suddenly developed acute breathlessness and had severe metabolic acidosis and desaturation (85%). Her ABG analysis revealed low PO₂ levels (60 mmHg). Since patient's general condition was unstable she was re-intubated and connected to mechanical ventilation. She was investigated simultaneously and her Troponin-T was positive. She had persisting tachycardia with heart rate of 134/min. Her ECG done showed elevated ST-T segments in anterior leads V1 AND V2. We did an ECHO which showed hypokinetic anterior wall with normal contracting interventricular septum and apex. Her ejection fraction was 50%. There was no evidence of MR/PHT or TR.

We managed her like a case of acute coronary syndrome with systemic heparin therapeutic dose 5000 IU intravenously 6th hourly and gave her tablet Aspirin and Clopidogrel through Ryles tube 75 mg each. We used injection dobutamine 5 microgm/kg/min continuous infusion for 4 days. Her general condition improved on 4th postoperative day and we managed to extubate her from the ventilator.

Patient was discharged on the 10th postoperative day in stable condition. Her repeat ECG was normal and her Troponin-T was negative and echo showed normal LV function and no regional wall abnormality.

Patient was followed up after 3 months and her ECG and ECHO were normal with no regional wall abnormality and normal ejection fraction 61%.

DISCUSSION: A case of acute left ventricular failure with fresh ECG changes and ECHO features found in this patient who had undergone LA myxoma excision is very rare.⁽¹⁾ Her coronary angiogram done was normal before surgery with no evidence of coronary artery disease. We had in our mind an overlooked valvular heart disease, myocarditis, metabolic disorder or acute coronary syndrome. We managed her like acute coronary artery syndrome. We could extubate her on day 4 and her general condition improved dramatically.

Investigations done later like ECG and ECHO showed normal reports and no regional wall motion abnormality. Her general condition also improved considerably and follow up investigations were also normal.

We personally feel this could be a rare case of stress induced cardiomyopathy (Takotsubo syndrome).⁽²⁾⁽³⁾ Mayo clinic criteria of stress induced cardiomyopathy fits in well for our case and hence the point of discussion here.⁽⁴⁾ The pathogenesis of Stress induced cardiomyopathy (SIC) is ill understood.⁽⁵⁾ Various explanations of coronary vasospasm, endothelial dysfunction and catecholamine injury have all been proposed.⁽⁶⁾⁽⁷⁾

Patient improved with minimal inotropic supports, beta blockers for controlling tachycardia and antiplatelet agents to tide over crisis. Since patient had fresh ECG changes and echo features suggestive of SIC (stress induced cardiomyopathy) and dramatic recovery within few days to normality substantiates our discussion of this condition.

We like to present this condition for its rarity as SIC is very rare after surgeries like LA Myxoma excision.

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Fig. 1

Fig. 2

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Fig. 3

Fig. 4

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