Acute Myocardial Infarction- An unusual presentation of a mass in left ventricle and right ventricle

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Abstract
Acute Myocardial infarction is not a rare finding in patients with a history of carcinoma with secondaries. We report a case of a 38-year old man who presented with symptoms of acute MI. The echocardiography showed a rare finding of a mass in both right and left ventricle.

Case report
A 38-year old man came to our emergency room with diffuse retrosternal chest pain associated with dyspnoea which lasted for one hour. The patient had diabetes for the last one year and he was on Daonil (Glibenclamide) 5 mg once daily. The patient was diagnosed as having carcinoma penis 1 year back and he underwent total penilectomy with inguinal block dissection. He had no past history of Tuberculosis, ischaemic heart disease or rheumatic heart disease. The patient was a non-smoker and history of alcohol use was not reported. Clinically he had no pallor, cyanosis, axillary lymphadenopathy, edema, jaundice or clubbing. Pulse rate was 90 per minute, regular. Blood pressure was 110/70 mm Hg. Jugular venous pulse was elevated.

CVS- findings: Apical impulse was not palpable. Second heart sound appeared to be fixed split, first heart sound normal. there was an audible fourth heart sound.

Respiratory system examination was unremarkable
ECG showed ST elevation in leads 1, AVL, V2, V3, V4 and V5 with right bundle branch block. Tropnin T first sample was 0.16 μg/L. Provisional diagnosis of AWMI with right bundle branch block was made.

Treatment
Patient was treated with Aspirin 325 mg, Clopidogrel 300 mg and Injection Streptokinase 1.5 million over 1 hour. The patient was stabilized on day1. On second day the patient was taken for transthoracic echocardiography which revealed homogenous echogenic mass in the LV apex extending to middle of LV. RV apex was also infiltrated and also a pedunculated mobile echogenic mass was noticed in RVOT.

CT Thorax revealed multiple non-enhancing soft tissue densities in the pericardium and hypodense lesions within left ventricle and right ventricle. There were 2 mediastinal lymph nodes of size 2x3 cm noted in the mediastinum near the heart.

Trans esophageal Echocardiography revealed the mass lesion in the LV, RV and just outside the heart in the transgastric view.

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Mass infiltrating interventricular septum.
Infiltrating mass near RV can be seen out side the pericardium

Mass infiltrating interventricular septum and Left ventricle

Mass infiltrating inside the pericardium near RA and RV junction.

Pedunculated RVOT mass

Small LV cavity
Mass infiltrating interventricular septum.

Infiltrating mass near RV can be seen outside the pericardium.

Mass infiltrating interventricular septum and left ventricle.

Mass infiltrating inside the pericardium near RA and RV junction.

Pedunculated RVOT mass.

Small LV cavity.

Trans Thoracic Echo

Fixed Anterior Apical and Septal Regions – shows RWMA, mass in the right ventricle.
Discussion
The patient was managed as an acute MI and later echo showed mass in LV, RV and pedunculated mass in RVOT. The possibility of pulmonary embolism was also considered. Differential diagnosis of LV clot, RVOT clot, (left and right ventricular thrombosis secondary to hypereosinophilic syndromes) infiltrative diseases and restrictive cardiomyopathy were considered as per transthoracic echo. Trans esophageal echo clearly showed a mass infiltration which was non-discrete in the RV and LV apex with mediastinal nodes. This diagnosis was strengthened by chest CT and a pathology report dating 22-10-2009 showing moderately differentiated Squamous cell from the resected ends of penis. Inguinal block dissection showed metastasis with infiltration of the overlying skin. Coronary angiogram and left ventricular biopsy were not performed as patient was not willing. Unfortunately patient collapsed and died suddenly on 10th day, probably due to tumor pulmonary embolism

Conclusion
We highlight this case as it is a rare presentation of a rare condition and the finding of extensive infiltration of myocardium with an interesting ECG

Reference
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Secondary Lymphoma of the heart manifesting as intracavitary masses