Abstract: **P819**

**Dynamic left coronary artery occlusion as a rare manifestation of papillary fibroelastoma of the aortic valve**

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Papillary Fibroelastoma (PFE) is the most common primary neoplasm of the heart valves. Clinical presentations range from asymptomatic to severe embolic complications. Not infrequently, they are a post mortem diagnosis.

We present the case of a previously fit 39-year-old female patient with no co-morbidities, who presented with sudden onset chest pains, electrocardiographic changes and cardiac enzyme rise, consistent with acute myocardial ischaemia.

An initial trans-thoracic echocardiogram (TTE) revealed a mass attached to the aortic valve, which was otherwise structurally normal. A subsequent Transoesophageal echocardiogram (TOE) confirmed a large mobile mass (1 cm²) attached to the aortic side of the left coronary cusp of the aortic valve (Image a), with severely hypokinetic anterior and apical walls of the left ventricle and an Ejection Fraction (EF) of 36-44%. The myocardial infarct was further confirmed on Cardiac MRI (CMR) with subendocardial late gadolinium enhancement seen in the anterior wall (Image b).

Due to proximity of the mass to the coronary ostia, we elected against conventional catheter angiography and a CT coronary angiogram (CTCA) was performed which revealed an occluded large 1st Diagonal (D1) (Image c) while other coronary arteries were unobstructed. An MDT consensus was reached for surgical excision of her tumour however a repeat TTE demonstrated that her EF had improved on TTE to 50%. We therefore elected to repeat her CTCA (Image d) prior to surgery in order to guide concomitant coronary revascularization. This confirmed recanalization of the previously occluded D1 (Image d).

Her surgical management included aortic valve sparing excision of the tumour. The patient had an uneventful recovery period and was discharged with no post-operative complications. A subsequent histopathology examination confirmed the diagnosis of PFE comprising of papillary fronds with a central core of dense connective tissue surrounded by a layer of loose connective tissue and covered by a layer of plump endothelial cells (Image e).

Cardiac Papillary Fibroelastoma can result in myocardial ischaemia; either secondary to embolization of tumour fragments or clot, or from dynamic coronary ostial obstruction. It is therefore an important differential in patients who present with symptoms of an acute coronary syndrome. Multimodality imaging becomes invaluable, in the diagnosis and perioperative planning for these patients who invariably require surgical treatment.
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