Scratch beneath the surface: a rare case of constrictive pericarditis and consequent dynamic stenosis of the left anterior descending artery

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Introduction: Constrictive pericarditis is a chronic inflammatory process, often characterised by scarring, fibrosis and calcification associated with diastolic heart failure, which might potentially be curable.[1]

Case report: 56-year-old male patient was brought to the Emergency Department because he noticed swelling of both lower legs. Upon arrival to the hospital, he was hypotensive, and the ECG showed a rapid atrial fibrillation and microvoltage. Chest X-ray revealed diffuse pericardial calcifications. Echocardiography showed a thickened, hyperechoic and calcified pericardium around the entire heart. Septal bounce and higher septal E' velocity values than lateral were recorded. Thoracic CT scan calcification along the lower inferior wall of the myocardium. Right heart catheterization described constrictive hemodynamics, more pronounced in the right ventricle. Square root sign was recorded as well as pronounced ventricular interdependence. Coronary angiography a dynamic mid LAD stenosis. In January 2024, a pericardiectomy was performed, without LAD aortocoronary bypass. Intraoperatively, the pericardium was almost completely calcified and attached to the epicardium. Caseous necrosis was also verified in the front wall. The surgical recommendation was to perform functional coronary angiography with the aim of assessing the degree of LAD stenosis. The patient was re-hospitalized in March 2024 for evaluation of the LAD stenosis. Coronary angiography showed 70% stenosis of mid LAD. IFR was performed and it measured 0.94. Microbiological analysis of the intraoperative pericardial contents that was subsequently received was sterile. After six months of follow-up, the patient was clinically stable, without angina or signs of heart failure.

Conclusion: The most common cause of constrictive pericarditis worldwide is tuberculosis, while in developed countries it is most often idiopathic or post-viral. Pericardiectomy is still considered the gold standard of treatment.

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LITERATURE

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