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Ischemic cardiomyopathy late complication, an unusual aspect.

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Topic(s):
Coronary Artery Disease – Pathophysiology and Mechanisms

Citation:
We present the case of a 77-year-old man with hypertension, dyslipidemia, type II diabetes mellitus, smoking history (100 pack-years) and chronic obstructive pulmonary disease. He had history of chest pain and syncope 10 years ago, however he did not go to the emergency department. In the same year he was referred to Cardiology. The echocardiogram had akinesia of the medial and apical segments of the lateral and inferolateral walls; a mildly depressed left ventricular (LV) ejection fraction (EF) and mild aortic stenosis. He underwent percutaneous coronary intervention of the left anterior descending artery and of the proximal circumflex artery. He was then lost to follow-up.

In 2018, he was referred to Cardiology consult after complaints of stable effort dyspnea. He was in NYHA class II/III and had no chest pain or syncope. His physical examination was remarkable for a grade II/VI aortic systolic murmur and bilateral diffuse crackles. The EKG had a left bundle branch block.

The echocardiography showed a probable large aneurysm of the medial and distal segments of the lateral and inferolateral walls with acoustic shadowing artifacts. The LV was non dilated, moderately hypertrophied and had a mild to moderately depressed EF (qualitative evaluation). He also had a probable severe aortic stenosis (aortic valve area 0.9cm²; mean gradient 33mmHg, velocity ratio 0.25, stroke volume 37 mL/m2). For better characterization a cardiac CT was done that showed a LV aneurysm with a wide neck (44mm) with largest dimensions of 44*44mm in the medial and distal segments of the lateral and inferolateral walls. It had calcified walls and an associated organized mural thrombus. The aortic valve Agatston calcium score was 2550 (severe aortic stenosis likely). Given the LV aneurysm he did not underwent dobutamine stress echocardiography. His surgical risk was deemed too high and the patient is currently under evaluation for transcatheter aortic valve implantation.

The development of LV aneurysms is not infrequent after myocardial infarction, however, the development of calcified walls as in this case is rarer and it may difficult echocardiogram evaluation due to acoustic artifacts. It also adds to the complexity of an eventual TAVI procedure.
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