

## P260

**Left ventricular pseudoaneurysm manifesting as syncope**

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**Introduction**

Left ventricular (LV) pseudoaneurysms form when cardiac rupture is contained by adherent pericardium or scar tissue. LV pseudoaneurysm is one of the mechanical complications of myocardial infarctions (MI), particularly inferior wall MI.

Although LV pseudoaneurysms are not common, the diagnosis is difficult and they are prone to rupture. Transthoracic echocardiography is commonly used in clinical practice and is usually sufficient to make the diagnosis of LV pseudoaneurysm. Regardless of treatment, patients with LV pseudoaneurysms had a high mortality rate, especially those who did not undergo surgery.

**Description of the clinical case**

74 years-old woman, with previous history of hypertension, dyslipidaemia and type 2 diabetes and stable coronary disease. In June 2018 the patient underwent coronary angiography that revealed left main and 3 vessels coronary disease, Cardiac revascularization surgery was proposed that the patient refused. The patient was stable during 6 months. Four days before presenting to emergency department the patient mentioned intermittent pre-cordial pain associated with exertion. At admission day she felt intense pre-cordial pain, accompanied by sudoresis and nausea, relieving with sublingual nitrate. The patient was hemodynamically stable at admission. Electrocardiogram showed sinus rhythm 65 bpm with 2mm ST-elevation of inferior leads. Troponin I was positive 30 ng/dL. Echocardiogram revealed marked hypokinesia of inferior and lateral wall with moderate depression of global systolic function and presence of slight circumferential pericardial effusion (6mm in diastole on lateral wall)

Emergent coronariography was performed and revealed progression of coronary disease of the right coronary artery with sub-occlusion of the mid segment. Cardiac revascularization surgery was proposed and the patient accepted this time. Echocardiogram was repeated during hospitalization revealed a stable pericardial effusion with reduced dimension comparing to admission. After 3 weeks, while waiting surgery in the ward, the patient was a syncope that resulted in fracture of the distal peroneum. Ecocardiogram was performed and revealed a LV posterior wall pseudoaneurysm through a narrow neck in parasternal long axis view and the presence of large pericardial effusion (Fig 1). The patient was submitted to definitive reparative cardiac surgery with pericardium patch and coronary artery bypass graft from left internal mammary to anterior descending coronary artery. The patient recovered well from the cardiac surgery and at 2 months follow up is alive and without signs of heart failure.

This case illustrates the complexity in the management of patients with LV pseudoaneurysm. These patients require substantial critical care, imaging and surgical expertise.

A high clinical index of suspicion is needed to avoid missing the diagnosis LV pseudoaneurysm and transthoracic echocardiography is essential to establish the diagnosis.

Abstract P260 Figure. Fig 1 - LV pseudoaneurysm

