Abstract: P260

Left ventricular pseudoaneurysm following silent myocardial infarction: a case report

Authors:
D Cocco¹, D Congia¹, G Binaghi¹, E Serra¹, A Pani¹, GS Fele¹, M Melis¹, G Matta², S Cossa², P Manca³, G Lix³, EM Cirio³, A Rossi³, M Corda¹, M Porcu¹, ¹G. Brotzu Hospital, SC Cardiologia - Cagliari - Italy, ²G. Brotzu Hospital, SC Radiologia - Cagliari - Italy, ³G. Brotzu Hospital, SC Cardiochirurgia - Cagliari - Italy, ⁴G. Brotzu Hospital, SC Cardiologia Interventistica - Cagliari - Italy.

Topic(s):
Acute Cardiac Care – CCU, Intensive, and Critical Cardiovascular Care

Citation:

Funding Acknowledgements:
NONE

Introduction: Left ventricular (LV) pseudoaneurysm (PA) is a rare complication of myocardial infarction (MI). The diagnosis can be challenging and mortality rates are still high despite surgical and percutaneous treatment. Notably, there is not a definite evidence about the best timing and modality of intervention.

Case Report: We present the case of a 57-year-old man, affected by diabetes and hypertension, who contacted our institution for dyspnea, initially interpreted as a COPD picture. On physical examination a 2/6 systolic murmur was detected, with a relevant congestion state characterized by lung rales, ankles oedema, hepatomegaly and jugular distension. ECG showed sinus rhythm and a Q-wave in the inferior leads, consistent with a previous inferior MI. Transthoracic echocardiography (TTE) revealed a large cavity, communicating with the LV trough a neck in the inferior wall, suspected for PA. The color-Doppler showed a large in and out blood flow into this cavity during the cardiac cycle. Global LV systolic function was severely depressed (EF 35%) with akinesia of the inferior and posterior wall and septal dyskinesia. Mild mitral regurgitation was also present. A CT scan was performed, which could not clearly differentiate a true from a pseudo aneurysm. MRI with gadolinium could better characterize the lesion, confirming a complete rupture of the myocardial wall. LGE distribution was consistent with a previous MI and excluded thrombosis. A definite diagnosis of silent inferior MI complicated by a PA was made. Coronary angiography showed a severe multivessel coronary artery disease. A surgical approach was planned. The wall rupture was repaired with a bovine pericardium patch. A CABG with internal mammary artery to the LAD was successfully performed. The revascularization of CX and RC was not technically possible. The post-operative period was complicated by a mediastinitis. After a complete resolution the patient was discharged. Two months later the patient was readmitted for dyspnea. TTE showed a partial detachment of the patch, with turbulent flow below the inferior wall. CT scan confirmed the diagnosis. Soon after the patient had a syncope with hemodynamic instability. Transesophageal echocardiography (TEE) was performed, revealing an almost complete detachment of the patch. The refilled PA was occupied by mobile thrombi and fresh blood, leading to pre-tamponade. A re-operation was attempted but the patient died in the operating room.

Conclusion: PA is a potentially lethal complication of MI. In the PCI-era PA is rarely seen and suspected. As in this case, PA can be an incidental finding, announced by heart failure symptoms. Multimodality imaging is extremely important for the diagnosis. The type (surgical vs percutaneous) and especially the timing (early vs delayed) of the treatment are hot topics, because there is still a large matter of debate. The failure of the repair is a dramatic event, with an ominous prognosis.
Abstract: P260
Left ventricular pseudoaneurysm following silent myocardial infarction: a case report
Authors:
D Cocco1, D Congia1, G Binaghi1, E Serra1, A Pani1, GS Fele1, M Melis1, G Matta2, S Cossa2, P Manca3, GLixi3, EM Cirio3, A Rossi4, M Corda1, M Porcu1
1G. Brotzu Hospital, SC Cardiologia - Cagliari - Italy, 2G. Brotzu Hospital, SC Radiologia - Cagliari - Italy, 3G. Brotzu Hospital, SC Cardiochirurgia - Cagliari - Italy, 4G. Brotzu Hospital, SC Cardiologia Interventistica - Cagliari - Italy

Introduction: Left ventricular (LV) pseudoaneurysm (PA) is a rare complication of myocardial infarction (MI). The diagnosis can be challenging and mortality rates are still high despite surgical and percutaneous treatment. Notably, there is not a definite evidence about the best timing and modality of intervention.

Case Report: We present the case of a 57-year-old man, affected by diabetes and hypertension, who contacted our institution for dyspnea, initially interpreted as a COPD picture. On physical examination a 2/6 systolic murmur was detected, with a relevant congestion state characterized by lung rales, ankles oedema, hepatomegaly and jugular distension. ECG showed sinus rhythm and a Q-wave in the inferior leads, consistent with a previous inferior MI. Transthoracic echocardiography (TTE) revealed a large cavity, communicating with the LV through a neck in the inferior wall, suspected for PA. The color-Doppler showed a large in and out blood flow into this cavity during the cardiac cycle. Global LV systolic function was severely depressed (EF 35%) with akinesia of the inferior and posterior wall and septal dyskinesia. Mild mitral regurgitation was also present. A CT scan was performed, which could not clearly differentiate a true from a pseudo aneurysm. MRI with gadolinium could better characterize the lesion, confirming a complete rupture of the myocardial wall. LGE distribution was consistent with a previous MI and excluded thrombosis. A definite diagnosis of silent inferior MI complicated by a PA was made. Coronary angiography showed a severe multivessel coronary artery disease. A surgical approach was planned. The wall rupture was repaired with a bovine pericardium patch. A CABG with internal mammary artery to the LAD was successfully performed. The revascularization of CX and RC was not technically possible. The post-operative period was complicated by a mediastinitis. After a complete resolution the patient was discharged. Two months later the patient was readmitted for dyspnea. TTE showed a partial detachment of the patch, with turbulent flow below the inferior wall. CT scan confirmed the diagnosis. Soon after the patient had a syncope with hemodynamic instability. Transesophageal echocardiography (TEE) was performed, revealing an almost complete detachment of the patch. The refilled PA was occupied by mobile thrombi and fresh blood, leading to pre-tamponade. A re-operation was attempted but the patient died in the operating room.

Conclusion: PA is a potentially lethal complication of MI. In the PCI-era PA is rarely seen and suspected. As in this case, PA can be an incidental finding, announced by heart failure symptoms. Multimodality imaging is extremely important for the diagnosis. The type (surgical vs percutaneous) and especially the timing (early vs delayed) of the treatment are hot topics, because there is still a large matter of debate. The failure of the repair is a dramatic event, with an ominous prognosis.