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Researches Classified - Award Panels Case Report

Mitral insufficiency for rupture of chordae tendineae – Case report

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Introduction: Ruptured chordae tendineae (RCT) is the most common cause of pure mitral regurgitation and is a major cause of acute mitral regurgitation (AMR). Most of the causes of RCT are idiopathic however it may be related to acute coronary syndrome immediately after the condition. The majority of patients with AMR require surgical treatment within one year after the onset of the disease, as it is present with congestive heart failure and a rapidly progressive elevation of pulmonary capillary pressure. The aim of this study is to emphasize the evolution of the patient for rupture of chordae tendineae one year after acute myocardial infarction (AMI).

Case report: A 74-year-old male patient with systemic arterial hypertension presented AMI with ST- segment elevation on the lateral wall in April 2015. He underwent a coronary angiography showing occluded right coronary artery and left marginal artery with critical lesion. A primary angioplasty with stent implantation was performed in the left marginal coronary artery, while the right coronary artery was occluded. After the AMI, the patient performed an echocardiogram, which showed no alterations. He presented favorable clinical evolution until October 2016, when he complained of malaise on walking, severe dyspnea, pre-syncope and hypotension, with improvement when resting. He sought medical attention one week after the episode because he had dyspnea on lesser efforts than usual. The physical examination revealed a systolic murmur in the mitral focus 3 ± 6 , with irradiation to the dorsum and biphasic pulmonary crackles. The diagnosis of major mitral regurgitation was confirmed by the echocardiogram performed at the hospital and the coronary angiography examination excluded the occurrence of intra-stent stenosis or new AMI. He underwent mitral valve replacement surgery with a biological prosthesis and during the surgery, RCT was confirmed. Today, after surgery, the patient is asymptomatic, with physical and imaging examination without signs of mitral regurgitation.

Conclusion: In the case reported, we present a patient who presented RCT after one year of AMI. In addition, we showed that the early surgical treatment for late RCT showed a good evolution. This fact is demonstrated by the presentation of immediate results, which made possible, after the procedure, a clinical improvement and the prognosis of the patient.

Keywords: Mitral insufficiency; Ruptured chordae tendineae; Acute myocardial infarction.