

Left ventricular aneurysm vs. pseudoaneurysm: “To Be, or Not to Be, That Is the Question”

Aneurisma vs pseudoaneurisma ventricular izquierdo. Ser o no ser, esa es la cuestión

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Mechanical complications of acute myocardial infarction, such as ventricular septal defect, left ventricular free wall rupture or acute mitral regurgitation due to papillary muscle rupture are rare events.

In the preinterventional era, the incidence of left ventricular pseudoaneurysm was estimated at 6%. Nowadays, with the angioplasty revascularization techniques, the incidence has been reduced to less than 1%. About 40% of those events occurred within a 24-hour period, and 85% within the first week.(1-3)

The differentiation between a true ventricular aneurysm and a pseudoaneurysm in a patient with an advanced myocardial infarction relies on the physical examination and the information provided by different diagnostic tests. Often, it is an incidental finding. And in some patients, the differentiation between them may be difficult. The classic criterion is to compare the maximum diameter of the neck with the maximum diameter of the cavity produced by the lesion. If the neck is smaller than the cavity, a pseudoaneurysm is suspected; on the contrary, if the neck is larger than the cavity, it is a true aneurysm.(4) However, this criterion has many limitations, and the diagnosis is finally provided by pathological studies on the basis of the tissue composition of the ventricular wall.

We present the case of a 50-year-old male patient who is referred to us because of an acute inferior myocardial suffered 25 days prior to the consultation. The patient had not been revascularized and was clinically stable.

Due to a poor acoustic window, a cardiac magnetic resonance with non-ferromagnetic contrast agent (gadoterate meglumine) was required. Under this technique, a cavity communicated with the left ventricular

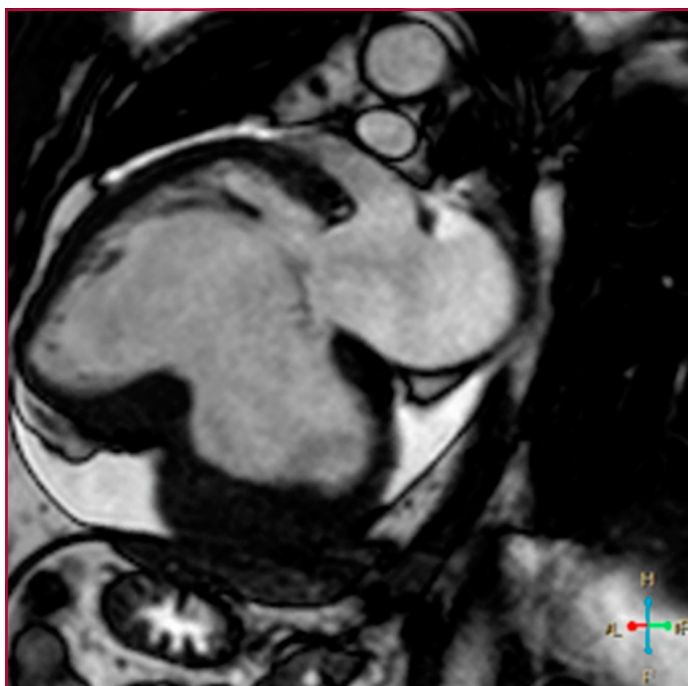


Fig. 1

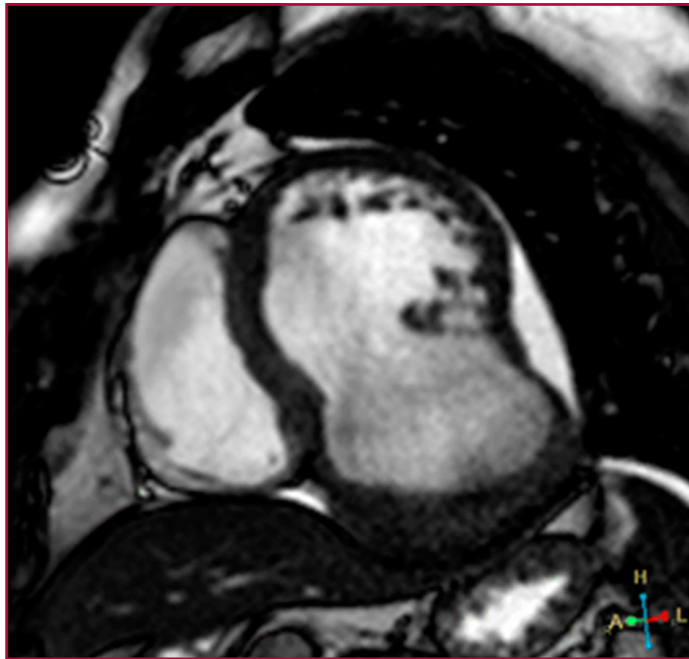


Fig. 2

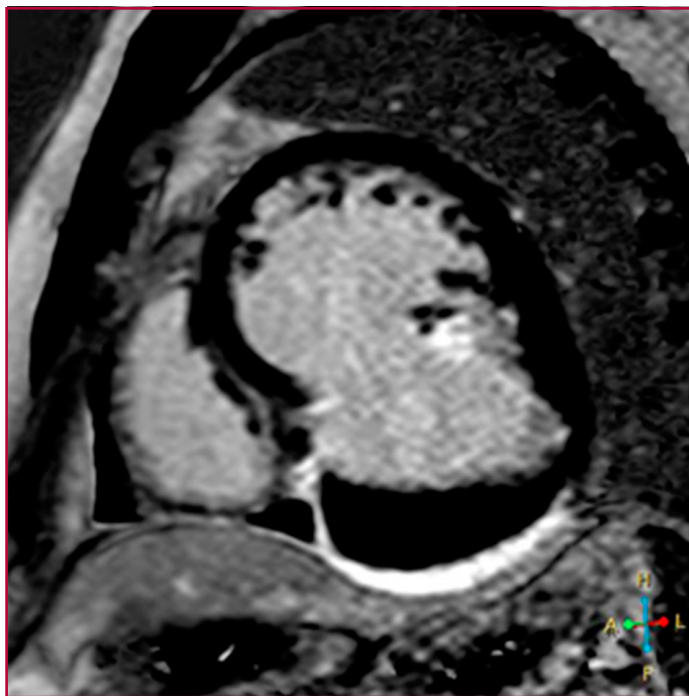


Fig. 3

chamber was observed. It had a wide neck and there was an interior thrombus covering the surface (Fig. 1, two chambers and Fig. 2, short axis). Ten minutes following the administration of the contrast agent, late enhancement of this structure wall was observed (Fig. 3, short axis). This confirmed that it was an aneurysm and excluded the presence of a ventricular pseudoaneurysm. Considering its size and its potential to develop heart failure or an embolic event, it was decided to perform a ventricular plastic surgery. The anatomical pathology confirmed the fibrotic nature of the wall

Conflicts of interest

None declared (See authors' conflicts of interest forms on the website/ Supplementary Material).

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