Imaging Diagnosis of Posterior Medial Papillary Muscle Infarction

Infarto de músculo papilar posteromedial, diagnóstico por imagen

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We present the case of a 55-year-old man who consulted for episodes of chest pain radiating to his left arm and neck of one-week duration. For the past 72 hours, he had been experiencing the same pain, with greater intensity, associated with general malaise and paleness. Physical examination revealed blood pressure of 172/118 mm Hg, with symmetrical pulses in the upper and lower limbs. Given the persistent chest pain and high blood pressure, a computed tomography angiography (CTA) of the aorta was initially performed, which ruled out acute aortic syndrome, but revealed a hypodense nodular image in the left ventricle (Figure A, red arrow).

The electrocardiogram revealed inferolateral ST-segment depression with slight troponin T elevation, and the echocardiogram only showed an increase in the papillary muscle size (Figure B, green arrow), with no intracavitary thrombi or valve involvement. Emergency catheterization was decided due to persistent pain, revealing a critical distal lesion in the circumflex artery and posterolateral branch.

Finally, to complete the study, a cardiac magnetic resonance imaging (MRI) scan was performed, confirming involvement of the posteromedial papillary muscle, which was enlarged due to edema, presenting a no-reflow area at the head of the medial zone corresponding to the intracavitary hypodense image seen on computed tomography (Figure C).

This case shows the finding of an edematous and prominent papillary muscle in the context of acute coronary syndrome, which can pose an initial diagnostic challenge when making the differential diagnosis of an intraventricular mass. (1-3)

Conflicts of interest

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

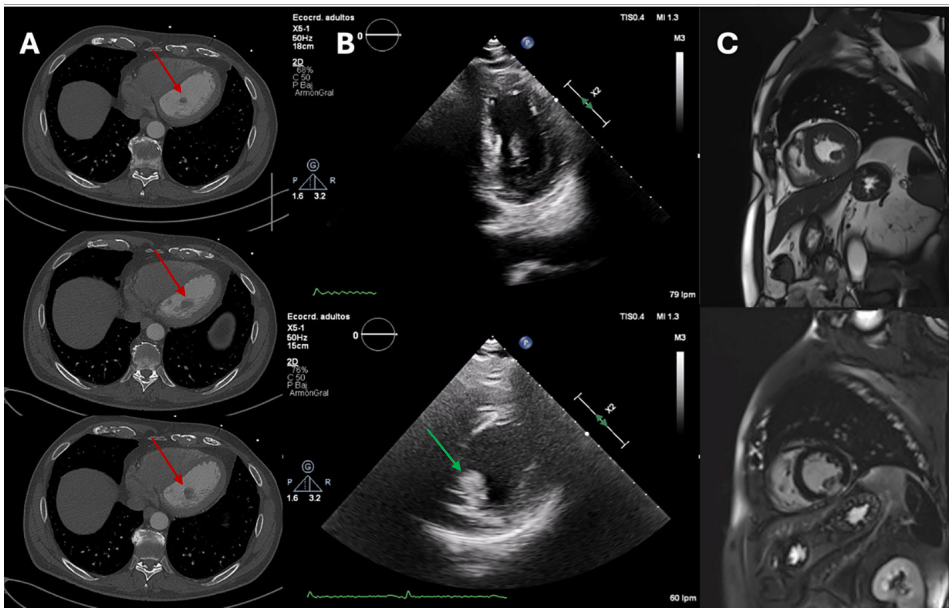

Fig. 1. Column **A** (CT angiography slices). Column **B** (apical 2-chamber and short-axis echocardiogram images at mid-level). Column **C**. (short-axis T1 and late enhancement sequences).

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