IMAGE

Postinfarction double acute left ventricle rupture: Comprehensive diagnosis by dual-source multidetector computed tomography

Double rupture cardiaque post-infarctus : diagnostic complet par scanner multidétecteur

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A 65-year-old patient who was complaining of dyspnoea and chest pain with dorsal irradiation was admitted for suspicion of aortic dissection. Electrocardiography showed Q waves on lateral leads; transthoracic echocardiography showed pericardial blood effusion and akinetic lateral wall motion. Contrast-enhanced electrocardiogram-gated acquisition using dual-source multidetector computed tomography ruled out aortic dissection and showed a perfusion defect of the left ventricle (Fig. 1A), associated with two intramyocardial ruptures (arrows) and pericardial effusion (asterix). Further reconstructions evidenced a complete cleft-like transmural rupture of the left ventricular wall (Fig. 1B), and three-dimensional imaging (Fig. 1C) confirmed occlusion of a left marginal coronary artery (black arrowheads), responsible for myocardial infarction, with two intramyocardial ruptures (white arrows). The patient was immediately sent to the operating room, without coronary angiography. Two slit-like transmural ruptures of the lateral left ventricular wall were confirmed (Fig. 1D) (white arrows) and were treated successfully with a pericardial patch. The patient was discharged at day 10.

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Figure 1.  A. Contrast-enhanced electrocardiogram-gated acquisition using dual-source multidetector computed tomography showed a perfusion defect of the left ventricle, and B showing complete cleft-like transmural rupture of the left ventricular wall. C. Three-dimensional imaging showing occlusion of a left marginal coronary artery (black arrowheads) with two intramyocardial ruptures (white arrows). D. Two slit-like transmural ruptures of the lateral left ventricular wall (white arrows). Cx: circumflex artery; LAD: left anterior descending; LV: left ventricle; Mg: left marginal branch; RV: right ventricle.

Disclosure of interest

The authors declare that they have no conflicts of interest concerning this article.