



Evolved cardiac rupture: an unusual complication and a rare presentation after heart valve surgery. a case report

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A 62-year-old woman with rheumatic mitral stenosis underwent two failed percutaneous valvuloplasties. Consequently, she received a replacement with a mechanical prosthesis, with technical difficulties in visualizing the mitral valve due to severe calcification. Two weeks later, she was admitted for atypical chest pain for a week, sudden syncope, and cardiac enzyme elevation with inferolateral ST-segment depression.

A coronary angiography showed absence of coronary stenosis. Additionally, a ventriculography was conducted, in which the contrast passed to an adjacent cavity (Fig. 1A).

Transthoracic echocardiogram (TTE) revealed a free-wall left ventricular defect with solution of continuity, with color Doppler flow through it and a pericardial effusion associated (white arrow, Fig. 1B-C). After administration of contrast, passage of contrast was observed through the orifice into the pericardial space, being compatible with a ventricular pseudoaneurysm complicated with free-wall ventricular rupture (Fig. 1D).

An urgent CT-scan was performed (Fig. 1E-F). It showed a large polylobed ventricular pseudoaneurysm with passage of contrast through the orifice in the lateral wall of the left ventricle, adjacent to the mitral prosthetic ring, which confirmed the suspicion.

An emergency surgery was performed. There were difficulties to control the bleeding during the surgery because it was very evolved and, finally, the patient died due to incoercible hemorrhage.

A ventricular wall rupture is a rare condition after a heart valve surgery, but highly lethal [1–3]. Those cases with technical difficulties for prosthesis implantation due to severe calcification are considered of higher-risk. The integration of multimodality imaging techniques is key for the evaluation and diagnosis of cardiovascular complication after a cardiac surgery, as illustrated in our case.

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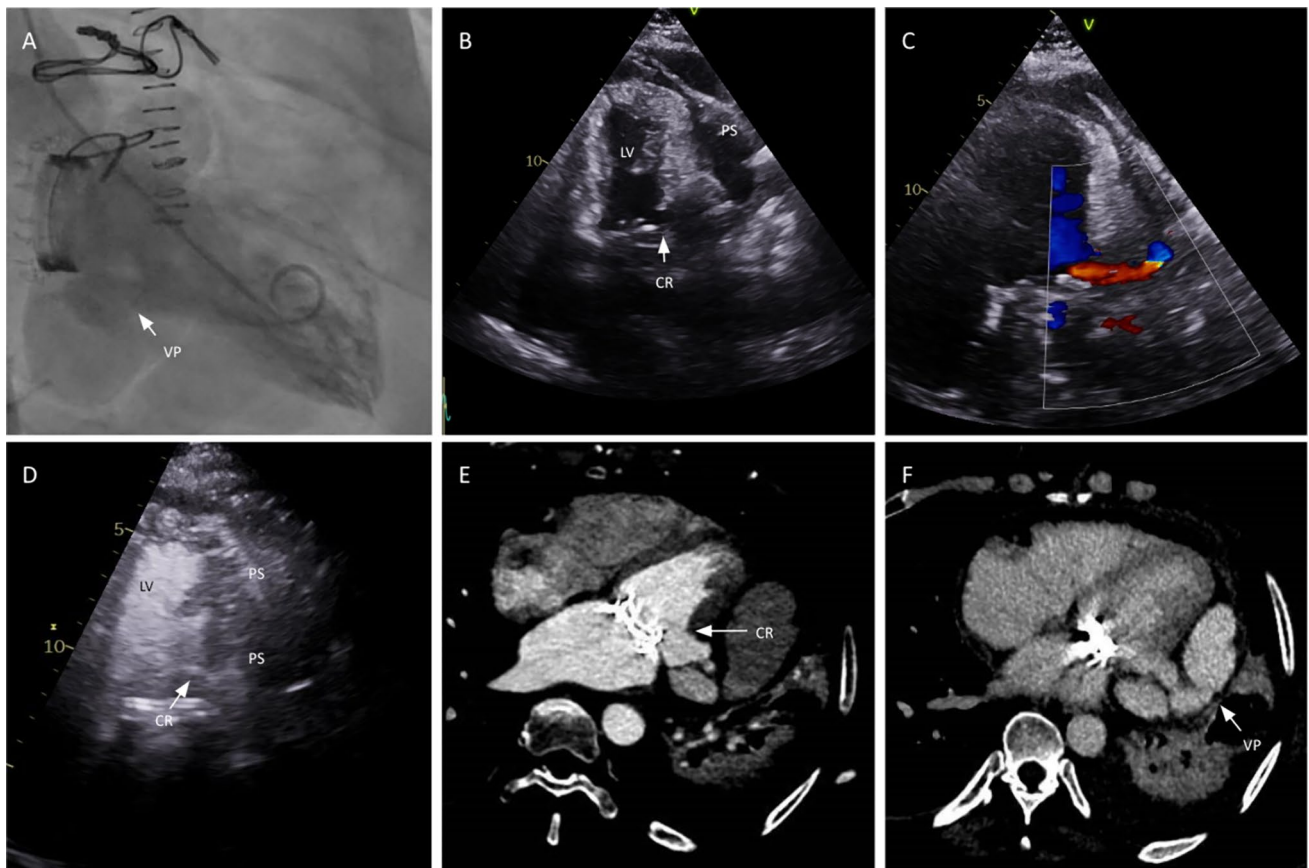


Fig. 1 VP ventricular pseudoaneurysm, LV left ventricle, PS pericardial space, CR cardiac rupture. 1A Angiography showed an adjacent cavity next to the ventricular wall (white arrow). 1B, TTE with CR

(white arrow). 1C, TTE with color Doppler through CR. 1D, Contrast-TTE with contrast through CR orifice. 1E-F, CT, pseudoaneurysm ventricular with pericardial effusion

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Declarations

Conflict of interest No conflict of interest.

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