Clinical vignette

Left ventricular pseudoaneurysm with a fistula to right ventricle

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A 68-year-old woman with a history of anterior myocardial infarction presented, as mechanical complication, an apical ventricular septal defect that was repaired surgically. Some years later, she consulted for difficulty in breathing, showing a holosystolic murmur suggestive of ventricular septal defect. A two-dimensional echocardiogram was performed and showed a paraventricular space free of echoes joining the above-mentioned ventricular cavity for a neck of union. The Doppler colour demonstrated abnormal flow between two chambers. An additional abnormal high-velocity flow connected the pseudoaneurysm to the right ventricle (Panel A). Coronary and left ventricular catheterization was performed and confirmed the echocardiography diagnosis (Panel B and movie I and II).

The left ventricular pseudoaneurysm is associated, in most cases, with acute myocardial infarction. However, we should not forget that surgery is the aetiology of this pathology. Few cases have been described following the repair of septal defect.

Panel A. Left side: Two-dimensional echocardiogram from plane of four apical chambers showing the break of the anteroapical wall of the left ventricle with pseudoaneurysm, the abovementioned location. Right side: Plane of two apical chambers showing the pseudoaneurysm in the apical position with a fistula to right ventricle. LV: left ventricle; PA: pseudoaneurysm.

Panel B. Left side: Left ventricular angiography in 30° right anterior oblique protection showing the pseudoaneurysm image in apical localization. LV: left ventricle; PA: pseudoaneurysm. Right side: Left ventricular angiography in 45° left anterior oblique protection showing the pseudoaneurysm and the contrast jet of the fistula to the right ventricle. LV: left ventricle; PA: pseudoaneurysm. Arrow: fistula.