

A sad story of a man with two ventricles

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Answer: C

A contrast enhanced computed tomography (CT) scan showed a pseudoaneurysm arising from the inferior wall of the LV (Fig. 2). The patient underwent urgent surgical repair of the aneurysm by Dor procedure (Fig. 3), but unfortunately he died during surgery.

Left ventricular pseudoaneurysm (LVP) results from a cardiac-free wall rupture contained by adherent pericardium or scar tissue without any myocardium or endocardium. The most frequent cause of LVP is transmural myocardial infarction. Other causes include cardiac surgery (especially mitral valve replacement and coronary bypass grafting), endocarditis or trauma. LVPs are associated with a high mortality rate because of the high propensity of rupture and enlargement. Left ventriculography provides a definitive diagnosis in more than 85% of patients (1). However, as in the present case, the pigtail catheter can be inadvertently positioned in the pseudoaneurysm cavity (Video 2). Unfortunately, this diagnosis was missed in his previous coronary angiographies.

Double-chambered left ventricle (DCLV) is a rare congenital condition that an anomalous muscle bundle or septum divides the ventricular cavity into two chambers. The differential diagnosis includes an LV aneurysm or a diverticulum. In contrast to

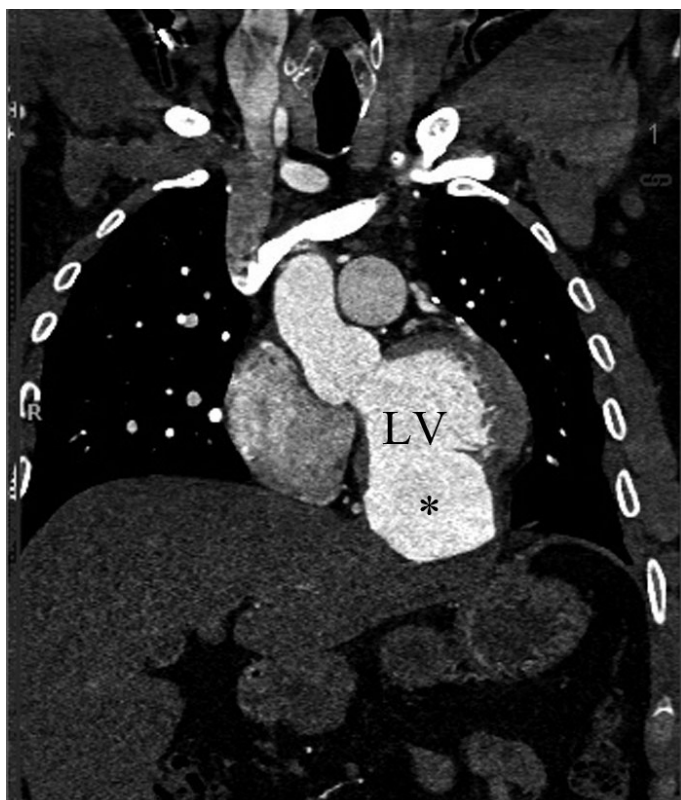


Figure 2. Coronal contrast - enhanced CT image

LV - Left ventricle

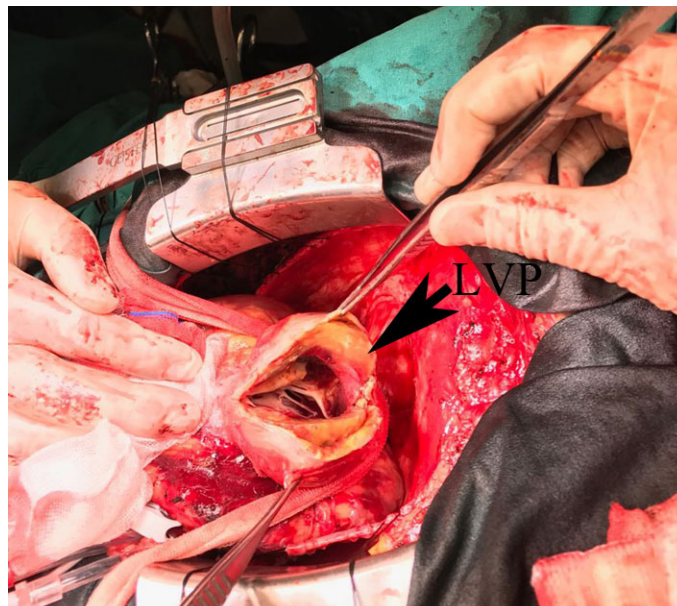


Figure 3. Intraoperative image.

LVP - Left ventricular pseudoaneurysm-black arrow

LVP, DCLV contains all layers of the myocardium and contracts synchronously with the LV (2).

A ventricular diverticulum results from a developmental abnormality resulting in an outpouching in the ventricular wall, unlikely to presenting late in life. Although a diverticulum has similar findings to those of DCLV, it differs from DCLV in having a relatively narrow neck connecting the diverticulum to the LV (2).

Pericardial cysts are usually located in the right cardiophrenic angle. They adhere to the pericardium directly or by means of a peduncle (3). In the present case, there was no pedicle.

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Video 1. Two-dimensional transthoracic echocardiography: apical 4-chamber view

Video 2, Video 3. Left ventriculography.

References

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