



Giant pseudoaneurysm of the left ventricle

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A 70-year-old man with a history of mitral valve replacement for endocarditis underwent major cardiac surgery. The operation included redo mitral valve surgery for bioprosthetic valve failure and aortic valve replacement for native valve stenosis. Following surgery, the patient developed cardiogenic shock.

Transoesophageal echocardiography showed a fluid collection suggestive for abscess formation or localized pericardial fluid (Panel A). Color-doppler signal, however, revealed a direct connection of the collection with the left ventricular outflow tract (Panel B). Cardiac computed tomography (CT) demonstrated a 63 × 40 mm pseudoaneurysm located between the left pulmonary artery and left atrium and connecting with the left ventricle through a narrow neck (Panel C and D). Because the operating risk was too high, surgery was not considered. Control cardiac CT after 1 month showed stable dimensions of the pseudoaneurysm. The conservative strategy was maintained.

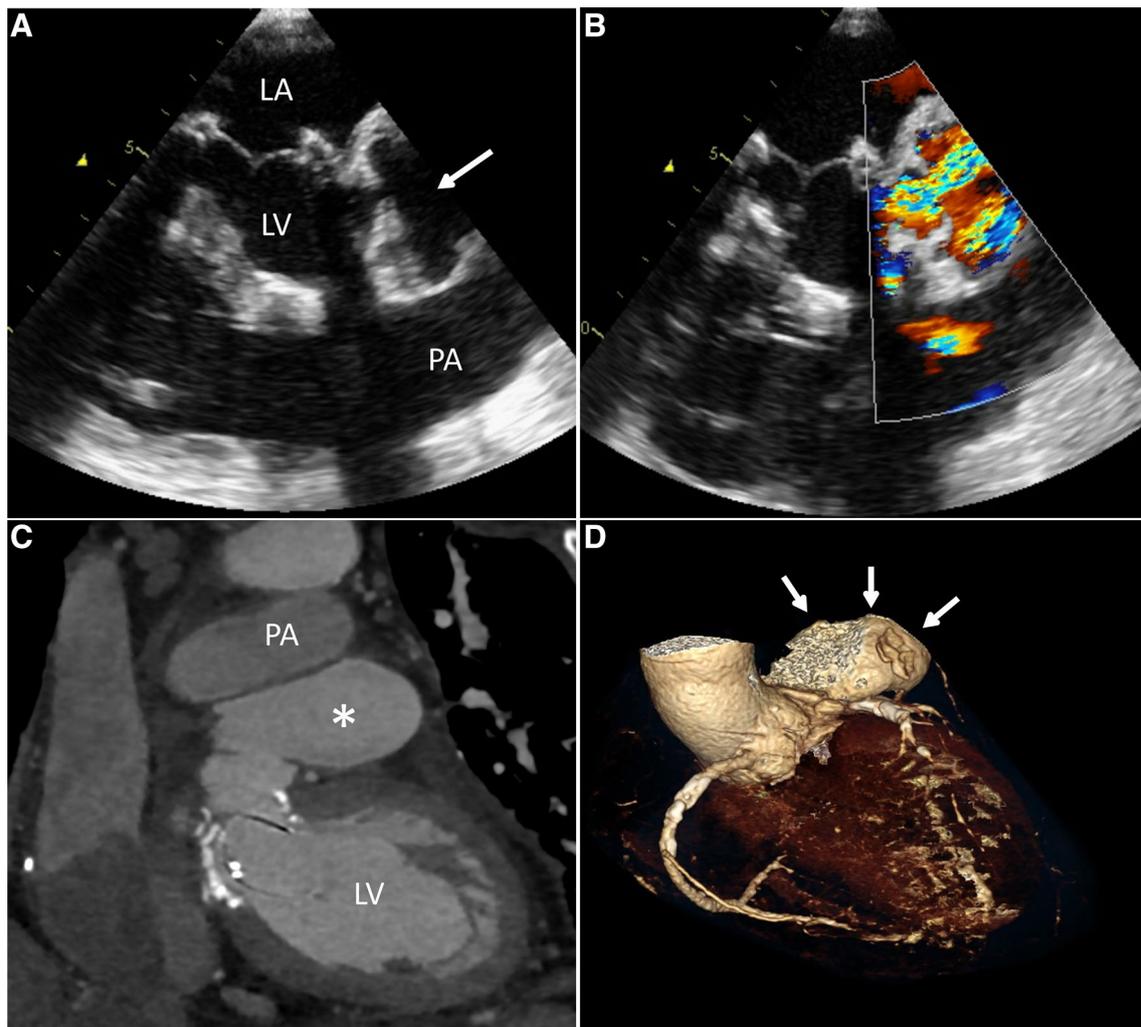
Left ventricular pseudoaneurysms are very rare. They result from rupture of the ventricular free wall that is contained by overlying adherent pericardium or scar tissue and occurs typically after myocardial infarction or cardiac surgery and occasionally as a complication of endocarditis or chest trauma. Distinguishing true from false aneurysms is challenging, yet differentiating these entities is crucial because false aneurysms have a higher propensity for rupturing.

Echocardiographic visualization of a thin, akinetic wall and narrow neck with “to-and-fro” doppler signal is highly suggestive. High spatial resolution cardiac CT provides detailed pseudoaneurysm images and delineates its relation to other cardiac structures. Cardiac magnetic resonance imaging with gadolinium allows also tissue characterization and can be used if available as an alternative for cardiac CT.

Data to guide treatment are scarce. Surgery is recommended because of the high risk of rupture but, as in our patient, the operative risk must be carefully weighed against the benefit.

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Compliance with ethical standards

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