A 48-year old man complained of dyspnoea and palpitation for 6 h. There was no history of trauma and angina. The initial ECG and laboratory tests showed no evidence of myocardial infarction. Computed tomographic angiography revealed left ventricular free wall rupture while coronary angiography was negative. Surgical intervention was carried out, and the perforation was repaired (Figs 1 and 2). He recovered uneventfully.

Figure 1: (A) Contrast-enhanced computed tomography showed a large, hypodense, non-enhancing mass (white thick arrow) surrounding the left ventricle and a narrow perforation (white arrowhead) in the posterolateral wall. (B–D) Three-dimensional reconstruction of the heart showed a narrow and irregular fistula (black thick arrow) arising from the left ventricle and normal coronary artery systems.
Figure 2: (A and B) Coronary angiography further revealed normal coronary arteries. (C and D) Operation confirmed that the large mass was just under the epicardium, and the left ventricle transmural fissural rupture did not break into the pericardial cavity. The thrombus mass was incised and surgically removed. The perforation was repaired with an interrupted horizontal mattress stitches technique.