Delayed presentation of a traumatic bilobed pseudoaneurysm of the left ventricular outflow tract

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A 37-year-old man presented with chest pain and shortness of breath following a high-velocity motorbike accident with blunt injury to the chest 10 months earlier. Thoracic computed tomography (CT) scan showed a communicating bilobed left ventricular (LV) pseudoaneurysm with a 6 cm (Panel A, black arrow) and 3 cm (Panel A, white arrow) aneurysm sack, respectively. Pre-operative transoesophageal echocardiography (TOE) provided a full depiction of the LV and the adjoining pseudoaneurysm, enhancing the pre-operative evaluation of the extent of the defect. It demonstrated an enlargement of the LV with two dyskinetic cavities (Panel B, black arrow, small aneurysm; white arrow, large aneurysm) localized in the diaphragmatic region.

Emergency surgery was done, and revealed the communication between the smaller anterior and the larger posterior aneurysm (Panel C, asterisk). The smaller aneurysm sack was opened and retracted to visualize the LV wall defect. Repair of the defect was accomplished using a Dacron patch. Mattress sutures around the patch edges with Teflon pledgets achieved haemostasis (Panel D). Post-operative CT scan (Panel E) and TOE revealed no paraprosthetic leakage. Patient’s post-operative recovery and follow-up were uneventful.

LV pseudoaneurysms occur through cardiac rupture limited by surrounding pericardium. As most cases are related to myocardial infarction or cardiac surgery, traumatic LV pseudoaneurysms are rare and difficult to diagnose. Besides signs of heart failure and dyspnoea, chest pain is a common symptom. Mortality rate is high, especially in patients not undergoing surgery.

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