A 58-year-old lady with a prior history of attempted suicide by venosection, was brought to our institution after voluntarily shooting herself with a 9 mm gun to her left chest. Her blood pressure was 140/100 mmHg and heart rate 62/min. There was an entry wound along the mid-left sternal border and no exit wound. The heart sounds were normal, with bilateral jugular distension. The echocardiogram showed a pericardial effusion without tamponade (figure, Panel A). The bedside chest X-ray (Panel B) showed a bullet projecting within the heart. Computed tomographic angiography showed a bullet in the left ventricle near the mitral valve (Panel C, arrows), with a 10 mm pericardial effusion and air in the anterior mediastinum. The patient was emergently brought to the operating room for repair, after obtaining informed consent for the surgery.

During institution of cardiopulmonary bypass, transoesophageal echocardiography identified the probable site of the bullet under the posterior mitral valve leaflet (Panel D). The bullet was found between the posterior mitral leaflet chords. The right ventricular entry wound was repaired. No septal defect was identified. The patient had an uncomplicated recovery. Follow-up echocardiography showed normal ventricular function and no ventricular septal defect.

A direct gunshot wound that penetrates the heart is almost universally fatal, beyond extremely rare minor pellet shots to the heart or late survivors of wounds sustained during the Second World War. We report the rare presentation of a self-inflicted gunshot wound to the chest penetrating the heart, which was successfully surgically retrieved and repaired.

Supplementary material is available at European Heart Journal online.