Right ventricular laceration caused by an intact sternal wire: 
a rare complication of median sternotomy

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Received 23 February 2012; received in revised form 29 March 2012; accepted 4 April 2012

Keywords: Sternum ¦ Wound dehiscence ¦ Right ventricle ¦ Haemothorax

A 68-year-old man underwent an intervention for acute aortic dissection. After extubation, he was treated with non-invasive ventilation because of respiratory distress. On postoperative day 7, the patient suffered severe hypotension, tachycardia and a raised central venous pressure. The emergent resternotomy revealed that the lower sternal wire had led to a right ventricle laceration (Figs 1 and 2).

Figure 1: The lower sternal wire, which was intact, disrupted the right sternal edge and rotated into the left edge, exposing the steel edges to the right ventricle free wall. The anterior surface of the right ventricle near the apex presented a transverse laceration, 3 cm in length.

Figure 2: The right ventricle underwent a successful repair using double felt pledgetted continuous sutures. The patient tolerated the procedure well and had no haemodynamic or neurological sequelae.