Early giant pseudo-aneurysm originating from the right coronary ostium

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Received 14 August 2012; received in revised form 19 October 2012; accepted 2 November 2012

Keywords: Pseudoaneurysm • Coronary ostium • Subcutaneous diffusion

Thirty-five days after a Bentall–De Bono reoperation, a 38-year old man was referred to our centre for an early pre-sternal swelling (Fig. 1A). Angio-computed tomography (CT) scan showed a giant pseudo-aneurysm originating from the right coronary ostium, protruding into the subcutaneous tissue through an incompletely healed sternum (Figs 1 and 2). Surgical correction was successful and the follow-up uneventful.

Figure 1: A pre-sternal mass (black arrow in (A)) rapidly grew in the subcutaneous tissue of this patient at the level of the manubrium, just over a month from a redo Bentall–De Bono operation performed for a valved-conduit detachment due to a prosthetic valve endocarditis. The patient had been firstly operated on for a type-A aortic dissection 6 years before. In (B), CT-scan showed a giant pseudo-aneurysm (white asterisk) strictly connected to the sternum and fresh bleeding originating from the right coronary ostium (white arrow). The blood passed the sternum through the midline storing itself under skin (white arrow in (C), at the level of the dissected distal arch and (D), at the level of supra-aortic vessels).
Figure 2: 3D CT-scan reconstruction. The giant false aneurysm is indicated by the white asterisk in (A). After imaging removal of the big clot, right ostial detachment with fresh bleeding became evident (black arrow in (B)). Skin incision showed a pre-sternal haematoma; thoracic re-entry was challenging and performed on pump (femoral vein and right axillary artery) at 23°C without patient exsanguination. The giant clot was removed and the suture of detached right coronary button successfully performed with single pledgeted stitches. The patient was extubated 12 h after the procedure and discharged from ICU on the first postoperative day (POD). The postoperative course was uneventful and hospital discharge occurred on the seventh POD.