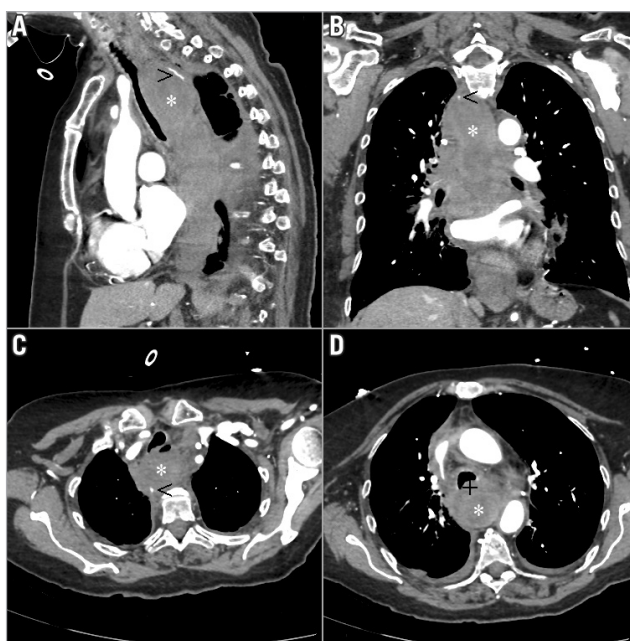


Mediastinal haematoma complicating percutaneous coronary intervention via the radial artery



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The radial artery has been increasingly used worldwide as the preferred access site for diagnostic coronary angiography and percutaneous coronary intervention (PCI), owing to increased patient comfort and reduced risk of haemorrhagic complications when compared to the femoral approach. Despite being rare, catastrophic haemorrhage can occur and should be promptly recognised. We present an example of a case complicating coronary intervention from the radial approach resulting in a large mediastinal haematoma.

An 87-year-old female underwent PCI to the LAD via the right radial artery, on aspirin, clopidogrel and bivalirudin. A hydrophilic Glidewire® (Terumo Corp., Tokyo, Japan) was required to negotiate the tortuosity of the subclavian artery during passage of the 6 Fr EBU 3.5 guiding catheter (Medtronic, Minneapolis, MN, USA), with there being transient passage of the Glidewire into a branch of the right subclavian artery. The PCI procedure subsequently proceeded without any apparent complication.

The patient experienced severe right-sided chest pain and nausea three hours post procedure. There were no ECG changes. A CT aortogram demonstrated a large posterior mediastinal haematoma (Panels A-D, asterisk) at the thoracic inlet extending inferiorly to the diaphragm with significant mass effect on the trachea (Panel D,

cross). Contrast extravasation was seen through a vessel originating from the subclavian artery (Panels A-C, arrowheads).

Two units of packed red cells were transfused following a drop in Hb from 100 g/L to 84 g/L. The patient declined an open surgery, and an endovascular intervention with a covered stent across the culprit subclavian branch was not performed due to there being no haemodynamic instability and no further drop in haemoglobin. The patient experienced an acute deterioration two days post procedure and suffered a cardiac arrest. Re-bleeding or mediastinal mass effect was suspected on the basis of the rhythm being pulseless electrical activity. Cardiopulmonary resuscitation was unsuccessful. An autopsy was not performed.

The radial artery is increasingly favoured as the primary access site for both diagnostic and interventional coronary procedures owing to the reduced risk of access-site complications. This case depicts a potentially catastrophic complication and highlights the need for caution with the use of hydrophilic wires. The case also demonstrates an important differential diagnosis of chest pain following cardiac catheterisation by the radial route.

Conflict of interest statement

The authors have no conflicts of interest to declare.

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