

Case Report

Extrapleural Haematoma following Percutaneous Coronary Intervention

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A 66-year-old patient was referred to our unit because of a 1-day history of sharp right-sided chest pain. A day before this, he had percutaneous coronary intervention (PCI) to the right coronary artery (RCA). The procedure was through the right radial artery, and a tortuous right subclavian artery was noted.

On review, there were no ECG changes, and acute coronary syndrome was ruled out. A month before the procedure mentioned above, he had PCI to the left anterior descending artery (LAD) because of a Non-ST Segment Elevated Myocardial Infarction (NSTEMI), after which he was commenced on dual antiplatelet therapy (Aspirin and Ticagrelor).

A CXR on admission showed a peripheral pleural opacity with smooth borders (figure 1). He subsequently had a chest CT scan, demonstrating an extensive right posterolateral extrapleural haematoma (EPH), including features of compression of the right upper lobe (figure 2). There was no contrast extravasation. Although his haemoglobin concentration fell to 8g/dl, he remained haemodynamically stable. He was, therefore, scheduled for Video Assisted Thoracoscopic Surgery (VATS) evacuation of the haematoma thirty-six hours after to allow the effects of Ticagrelor to wear off.

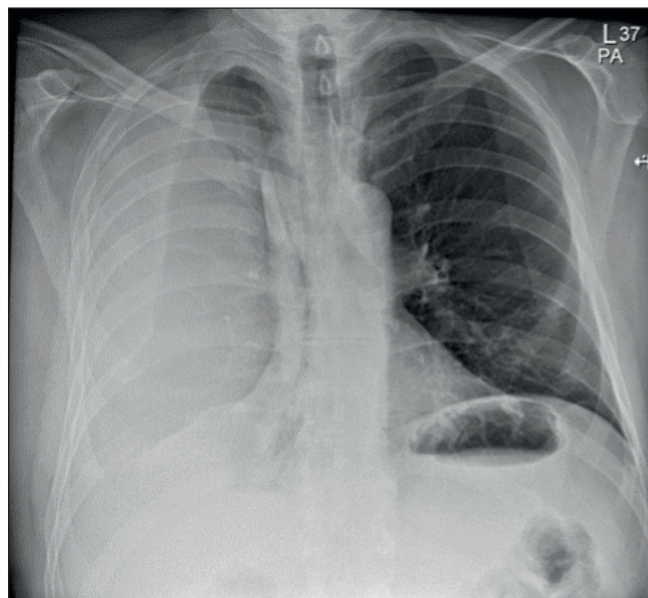


Figure 1. Chest X-Ray on admission, showing a peripheral pleural opacity with smooth borders

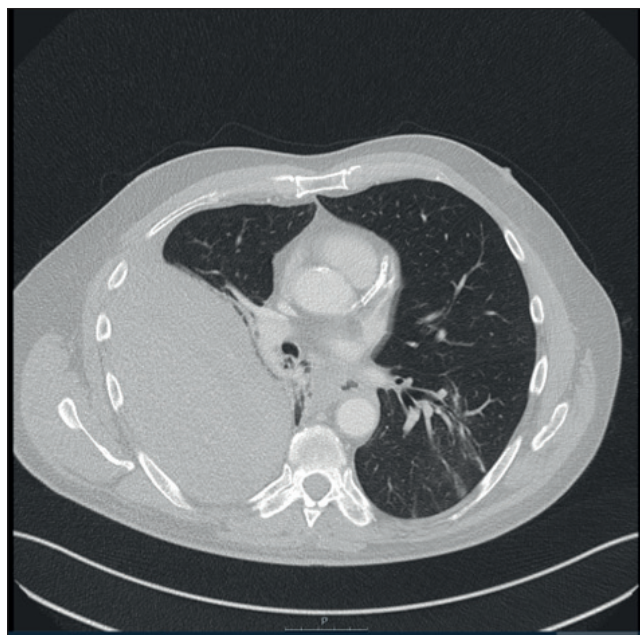


Figure 2. CT scan of chest, showing right posterolateral extrapleural haematoma

Intraoperatively, there was a large, clotted extrapleural collection with all the apical and lateral pleura stripped off the chest wall. There was a small defect in the pleura communicating with the pleural cavity and a small haemothorax. The extrapleural collection and haemothorax were evacuated using a 2-port VATS approach, the pleura opened widely and the pleural space copiously lavaged. Two chest drains were left in situ. Ticagrelor was restarted on the third postoperative day, and the patient discharged on the fifth postoperative day. Figure 3 shows the CXR on the twentieth postoperative day.

EPH is infrequent after PCI via radial artery access. The more commonly reported complications are mediastinal and cervical haematomas secondary to injuries to the subclavian artery^{1,2,3}. Tortuosity of the subclavian artery could be the predisposing factor in our case, as well as dual antiplatelet therapy. Clinical distinction between EPH and haemothorax

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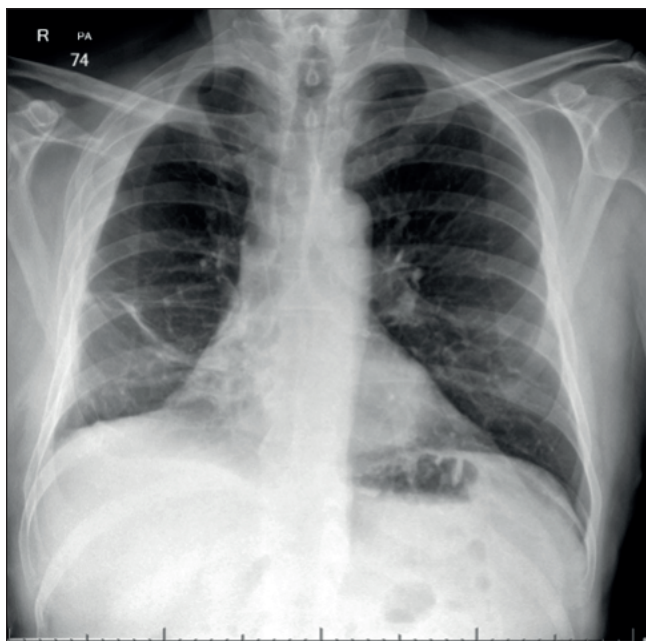


Figure 3. Chest X-Ray 20 days post-procedure, showing extensive resolution of changes

is mandatory, as the two have frequently been mistaken. EPH should be suspected if there is a peripheral pleural opacity on a CXR. However, this should be confirmed by a chest CT scan showing a biconvex extrapleural collection. As EPH is often not in continuity with the pleural cavity, routine chest drainage will not treat the condition⁴. VATS evacuation and drainage, possibly preceded by angiographic embolisation in scenarios of active bleeding, is the treatment of choice⁵.

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