Images in cardio-thoracic surgery

Subclavian artery penetration involving central line access treated with a self-expanding stent

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A 63-year-old woman developed right hydrothorax caused by central venous catheter malpositioning. The catheter penetrated the right subclavian artery and entered the pleural space (Fig. 1). The removal of the catheter caused massive bleeding and subsequent haemodynamic instability. A self-expanding stent was inserted into the penetrated right subclavian artery (Fig. 2).

Fig. 1. Chest computed tomography scan shows the central venous catheter penetrating the right subclavian artery and within the pleural space (white arrow). The large amount of pleural effusion with a passive atelectasis of the right lung, subsegmental atelectasis in the left lung, and a left mediastinal shift are shown. Left nephrectomy state and postoperative pneumoperitoneum can be seen.

Fig. 2. (A) Angiogram shows the leakage of contrast media in the right subclavian artery (white arrow). (B) The angiogram following the insertion of the self-expanding stent shows no leakage of contrast media in the right subclavian artery (black arrow).