

Rupture and Distal Migration of a Central Venous Catheter

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Keywords

PORT rupture; Port-a-cath complications; Central venous catheter; Pinch-off

Clinical Images

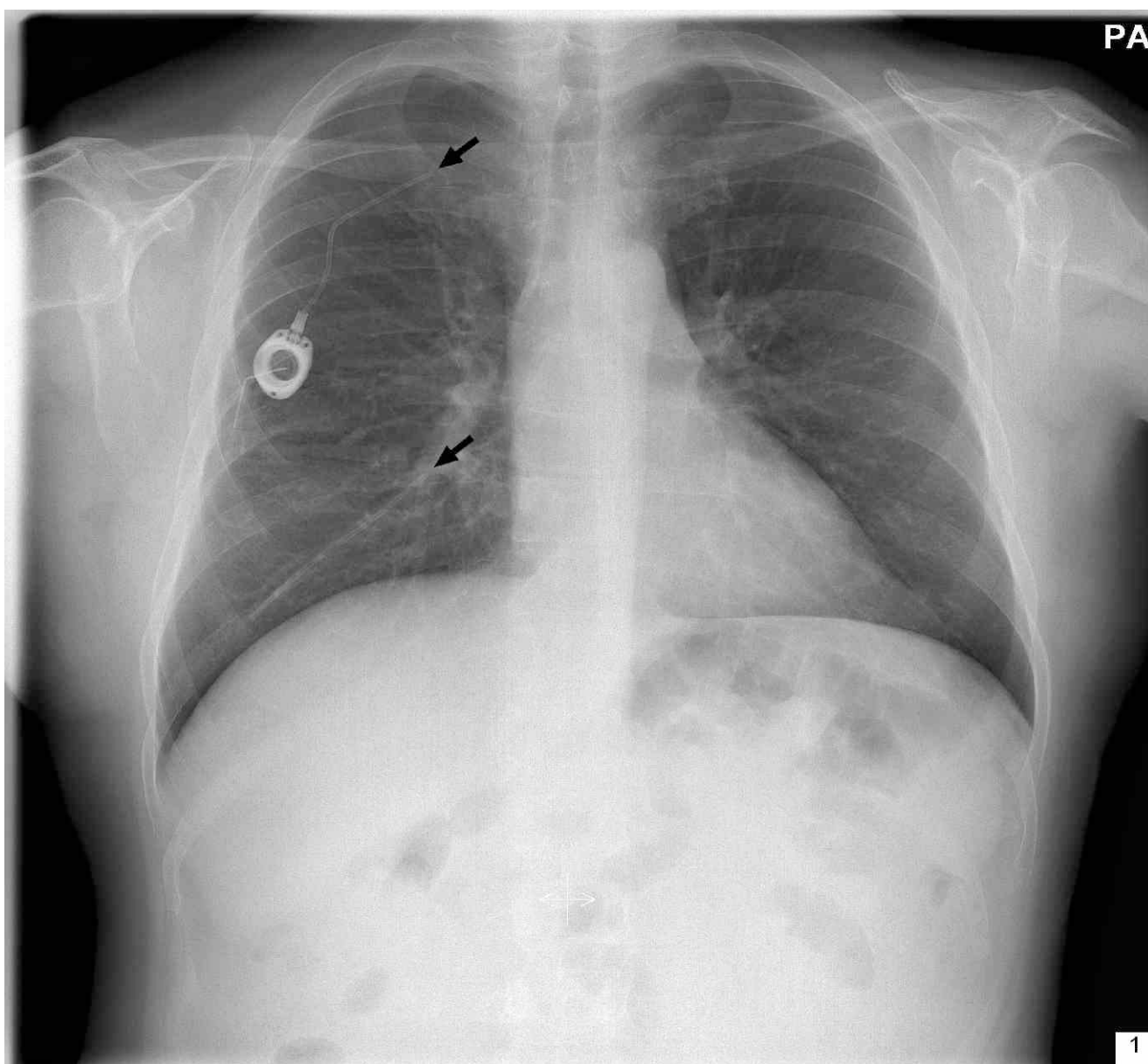


Figure 1: The chest x-ray image clearly shows the proximal tract of the catheter connected to the chamber and the big distal fragment in the right lung lower lobe.

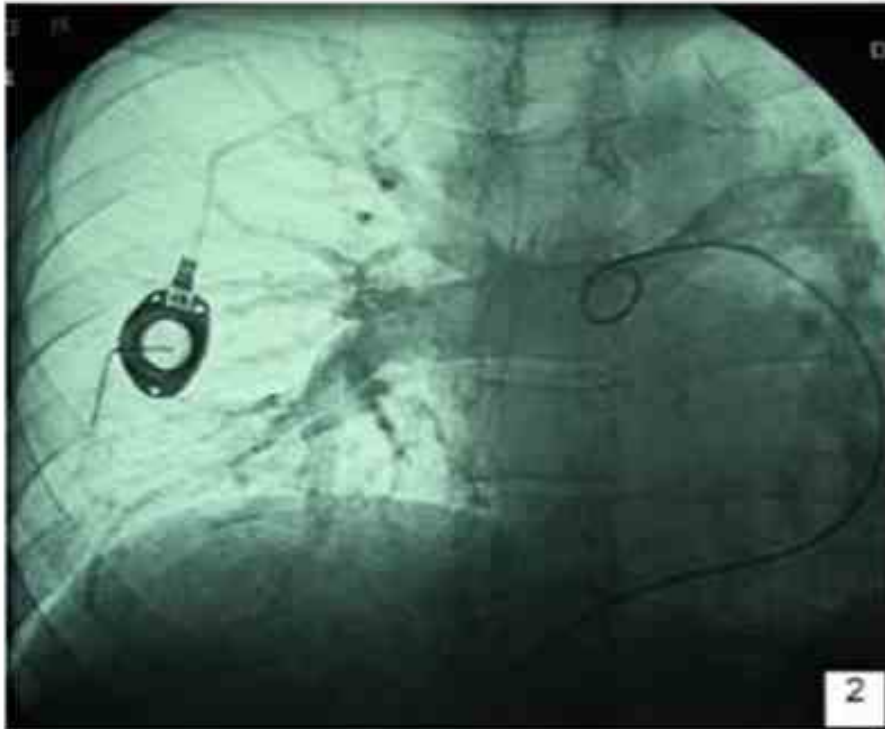


Figure 2: The angiography confirmed the presence of the catheter in the inferior branch of the right pulmonary artery.

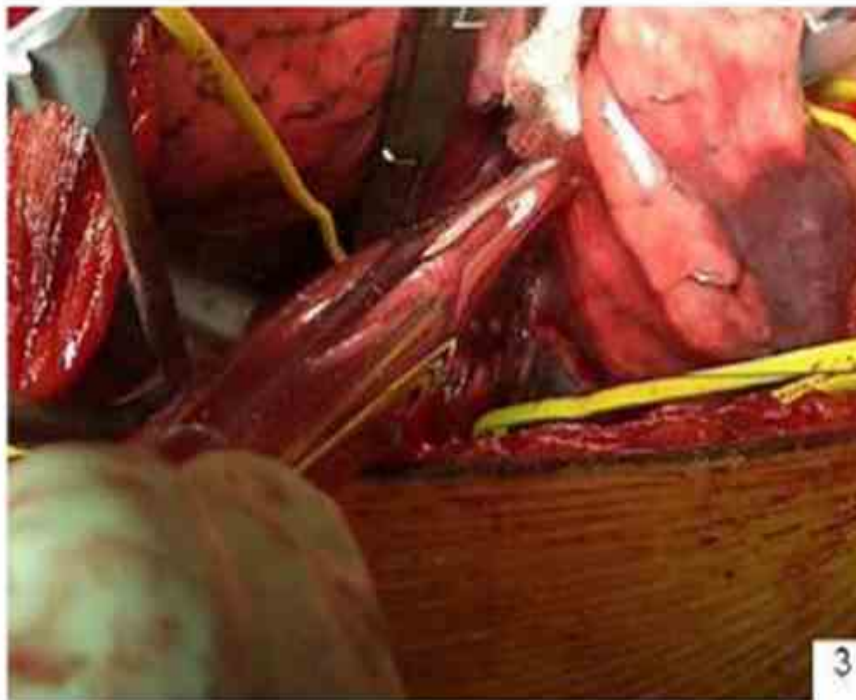


Figure 2: Intraoperative view: after having clamped the pulmonary veins and the intermediate trunk of the pulmonary artery (yellow loops), a vertical arteriotomy was performed and the catheter fragment was then visible (just closed to the suction tube). Finally, the artery was sutured with running 5-0 Prolene.

Description

A 48-year-old man, affected by head-neck cancer with an implanted port-a-cath for chemotherapy infusion in the right subclavian vein, underwent a follow-up medical visit at the end of treatment. He was completely asymptomatic. However, some problems emerged when washing the port-a-cath: blood drawing was difficult and saline solution infusion caused local pain to the patient. A chest x-ray revealed the presence of a break in the catheter, with the proximal tract that was still connected to the chamber, while the distal tract was found in the right lung lower lobe. The distal fragment migrated in the pulmonary circulation, passing through the heart and reaching the right lung, where it lodged in the lower lobar pulmonary artery. After unsuccessful attempts to rescue the fragment through percutaneous angiography, a catheter fragment of 8 cm was removed by open surgery without complications and with complete patient recovery.

Rare complications of implantable vascular access systems include disconnection of catheter from the chamber or, as in this case, catheter rupture, caused by the compression of the catheter by the neighboring bony structures (it has been called “catheter pinch-off”) [1-2]. To our knowledge this is the first case with a so atypically distal catheter migration.

References

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