Late Intravascular Embolization of a Chemo Port Catheter

Alexander Loch, MD, MRCP, MCEM, Ramesh Veriah Singh, MRCP, Imran Zainal Abidin, MMED (MAL), Chee Kok Han, MMED (MAL), FESC, and Wan Azman Wan Ahmad, FRCP, FACC, FESC

A 51-year-old woman was referred for angiographic extraction of a foreign body. She underwent left mastectomy with axillary clearance for breast cancer followed by chemotherapy and radiotherapy 8 years before this. A chemotherapy port was implanted below the right clavicle with catheter access into the right subclavian vein at that time. After she had completed chemotherapy, she was lost to follow-up, until she represented 8 years later with persistent cough.

The chest x-ray (Figure 1*A*) showed a foreign body comprising an ellipsoid head and a flagellating tail on fluoroscopy (see video, Supplemental Digital Content 1 [http://links.lww.com/JTO/A86]; see video, Supplemental Digital Content 2 [http://links.lww.com/JTO/A87] for a close-up; and see video, Supplemental Digital Content 3 [http://links.lww.com/JTO/A88] for a 180° surround view). A computed tomography scan of chest demonstrated embolization of the fractured chemo port catheter. The catheter segment (Figure 1*B*, arrow) was lodged between the pulmonary artery trunk and a branch of the left pulmonary artery. The distal end of the catheter was surrounded by a 3.7-mm-diameter calcified tissue mass (Figure 1*B*, arrowhead).

The patient declined angiography in view of the risks associated with extracting a heavily calcified and embedded catheter tip. The chemo port was still located below the right clavicle with a stump of the catheter connected to it. We hypothesize that entrapment ("pinch off") and friction of the catheter between clavicle and first rib over many years resulted in fracture and embolization of the catheter.

Increasingly, specialist nurses are responsible for the care of patients with central venous catheters and the removal of the devices.[1] Current guidelines recommend the removal of unused ports.[2] Case reports of embolized port catheters or so-called totally implanted venous devices are rare. Only about a third of the embolic events reported were localized in the pulmonary arteries, and about a quarter of patients were asymptomatic at the time of diagnosis.[3]

Catheter embolism may go undetected for prolonged periods of time and is often diagnosed incidentally. The risk of serious complications for patients with asymptomatic catheter embolism is unknown. Embolized catheter fragments should be removed to prevent further complications.

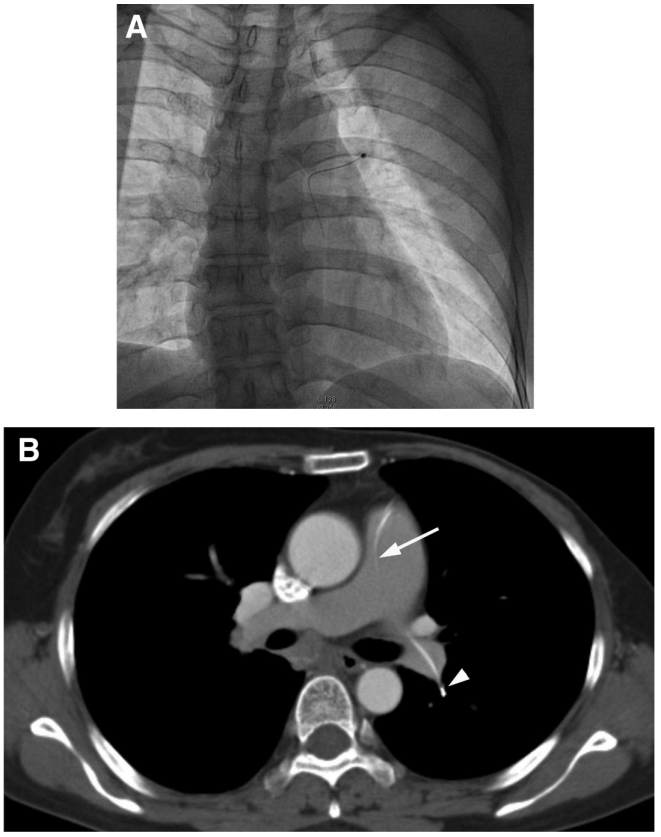

FIGURE 1. *A*, Chest x-ray with foreign body. *B*, Computed tomography scan of chest with embolized catheter segment between the pulmonary artery trunk and the left pulmonary artery. The distal end of the catheter is surrounded by a 3.7-mm-diameter calcified tissue mass.

Department of Cardiology, University Malaya Medical Center, Kuala Lumpur, Malaysia.

Disclosure: The authors declare no conflicts of interest.

Address for correspondence: Alexander Loch, MD, MRCP, MCEM, Pusat Perubatan Universiti Malaya, Lembah Pantai, 59100, Kuala Lumpur, Malaysia. E-mail: alexanderloch@gmx.de

ISSN: 1556-0864/11/0607-1292

REFERENCES

1. Ingram P, Sinclair L, Edwards T. The safe removal of central venous catheters. *Nurs Stand* 2006;20:42–46.
2. Bishop L, Dougherty L, Bodenham A, et al. Guidelines on the insertion and management of central venous access devices in adults. *Int J Lab Hematol* 2007;29:261–278.
3. Surov A, Wienke A, Carter JM, et al. Intravascular embolization of venous catheter—causes, clinical signs, and management: a systematic review. *JPEN J Parenter Enteral Nutr* 2009;33:677–685.