



Entrapment of a pulmonary artery catheter inside a knotted percutaneous sheath introducer

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An 82-yr-old male (who consented to this report) was scheduled to undergo aortic valve replacement for aortic stenosis and coronary artery bypass surgery. After induction of general anesthesia, an 8.5 Fr percutaneous sheath introducer (Arrow International, PA, USA) was inserted into the right internal jugular vein under ultrasound guidance. A 7.5 Fr pulmonary artery catheter (PAC) (Biosensors International, Singapore) was then threaded through the sheath to 54 cm without difficulty and without wedging. A routine postoperative chest *x-ray* showed what appeared to be a semi-loop of the PAC in the right ventricle with the distal tip in the main pulmonary artery. On postoperative day 1, resistance was encountered on removal of the PAC, and a subsequent chest *x-ray* confirmed a knot at the distal end of the introducer sheath (Figure). As a result, the introducer sheath and PAC were

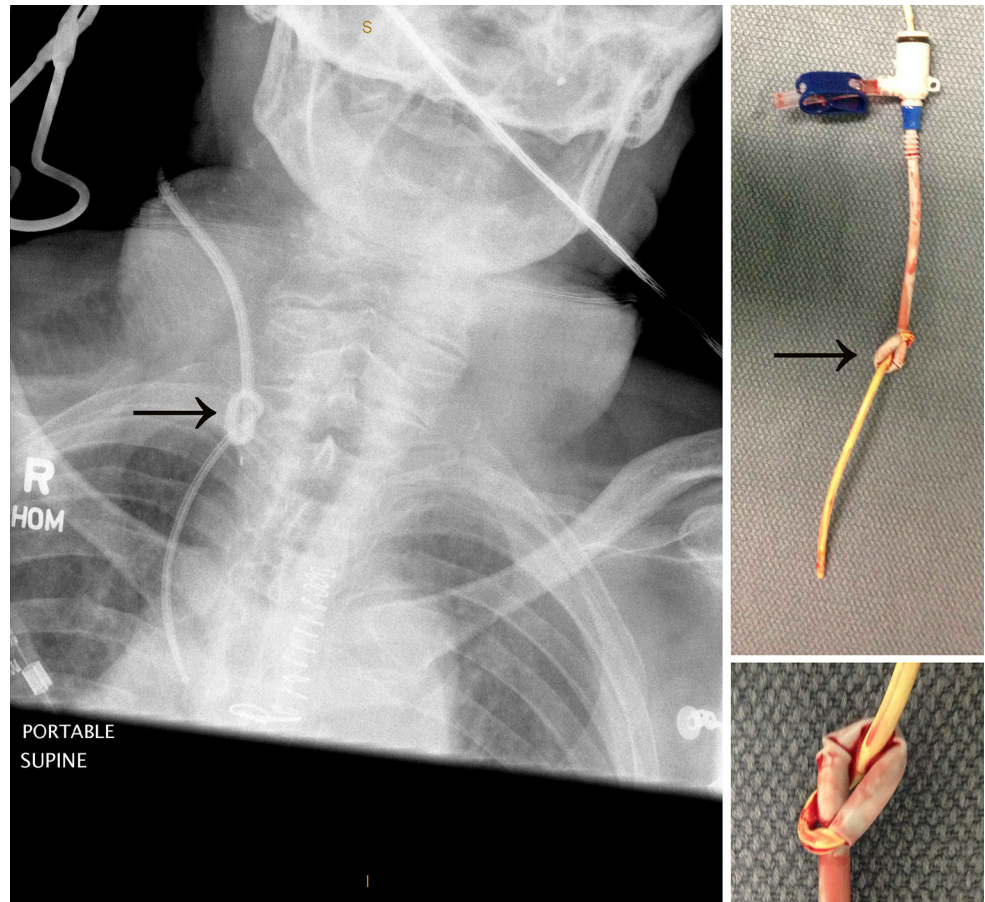
removed via a transverse jugular venotomy under general anesthesia, and the patient was discharged home on postoperative day 5 without further complications.

Many previous reports have described various knotted intravascular devices, including arteriography catheters, central venous infusion catheters, guidewires, pacemaker electrodes, and PACs.^{1,2} Ours is a novel report describing a knotted introducer sheath with a PAC within it. Management of knotted intravascular devices includes percutaneous techniques performed in the interventional radiology suite or surgical intervention.³ The initial postoperative chest *x-ray* showing a semi-loop formation in the right ventricle should have triggered removal of the PAC under fluoroscopic guidance using an appropriate guidewire. This may have prevented the subsequent need for surgery.

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Figure Left: Chest *x-ray* showing a knot at the distal end of the introducer sheath. Right: Pulmonary artery catheter inside the knotted percutaneous sheath introducer after being surgically removed



Conflicts of interest None declared.

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