

Mini Review

Retained Severed Radial Arterial Catheter

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The radial artery is the most frequently utilized site for arterial cannulation due to accessibility and safety, with approximately 8 million catheters placed per year in the USA.¹ Radial artery cannulation is associated with a major complication rate of less than 1%. While the most common complication is temporary occlusion (19%), common complications such as thrombosis, infection and vascular injury are more likely to occur than complications requiring surgical intervention, such as neuropathy or ischemia.² The image shows a radiopaque tubular structure in the volar aspect of the left wrist, in the area of the left radial artery, following transection of a radial artery catheter with attempted removal. This catheter had been placed due to hemodynamic instability and the need for frequent arterial blood gas measurements. It was secured with suture to the patient's skin and covered with an adhesive dressing. With improvement in clinical condition the catheter was no longer required, and, on removal of the sutures, the catheter was severed leaving a portion of the catheter in the artery. Management options include removal under local anesthesia at the bedside, if the foreign body is palpable, which was not the case with this patient. Under conscious sedation in the operating room, the retained catheter was identified with ultrasound and removed, via arteriotomy. The patient recovered uneventfully. Although most arterial catheter damage occurs on insertion³, securing these catheters without the need for sutures will likely prevent this complication on catheter removal.

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Reference

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