Arm position-dependent kinking of intravenous cannula

Sir,

A 60-year-old female sustained a motorbike accident in which she injured her right elbow. Paramedic staff inserted a 14-gauge intravenous cannula (IVC) in her right antecubital fossa, and she was brought to our hospital. *En route*, the patient was noted to hold her right arm in elbow flexion which resulted in resistance to intravenous fluid flow.

On arrival at our hospital, the wound was explored and washed; no muscle or tendon injury was noted. The wound was sutured, and an X-ray was obtained to exclude bony injury. The X-ray showed no bony injuries; however, her IVC was noted to be kinked at 90° [Figures 1 and 2].

Her right arm was kept in extension with adequate analgesia; there was no resistance to intravenous fluid flow. The IVC was later removed due to hospital policy of limiting the use of out-of-hospital IVC to 24 h. The patient was discharged 7 days later without clinical sequelae.

Figure 1: Anteroposterior X-ray of the patient's arm showing an acutely kinked intravenous catheter

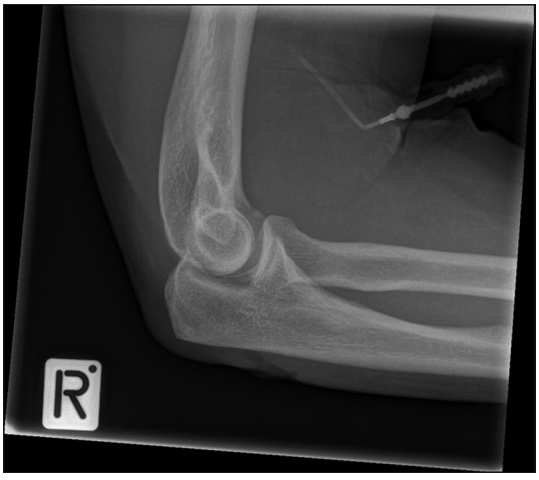

Figure 2: Lateral view X-ray showing the kinked intravenous catheter

Kinking of IVC is a very common occurrence especially in the inpatient population who require ongoing intravenous therapy. While usually a nuisance, complications have been documented in the literature. Forceful application of intravenous therapy against resistance can lead to local tissue trauma and/or extravasation of material.[1] Rarely, a fragment of the IVC may fracture and embolize leading to potentially catastrophic complications.[2] Meticulous care of IVC, including diligent inspection for site infection and minimizing the duration of IVC use, is the standard of care to mitigate such complications.[1]

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Conflicts of interest

There are no conflicts of interest.

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