Ultrasonography and Seldinger’s technique: Using the best of both worlds for difficult radial artery cannulation!

Madam,

Invasive blood pressure monitoring is an essential part of perioperative management of patients undergoing pheochromocytoma removal. We performed radial artery cannulation in a 60-year-old female patient undergoing laparoscopic left adrenalec- tomy for pheochromocytoma. Consent for publication of the report has been obtained from the patient. The patient had had Colles’ fracture in bilateral wrist joints and as a result had abduction and flexion deformity of both the wrist joints. The radial artery on both sides had a tortuous course [Figure 1a]. We used real-time ultrasonography to localize and guide cannulation in the radial artery by Seldinger technique using a 20-gauge arterial cannula (Leadercath, Vygon, UK). Arterial puncture and guidewire insertion were successfully done followed by insertion of arterial catheter [Figure 1b].

Use of guidewire for insertion of radial artery catheter significantly improves the success rate of cannulation.1 This case clearly demonstrates how the guidewire could easily negotiate the bends in the radial artery while a normal polyurethane cannula would have caused intimal tears or possible re-puncture of arterial wall. Use of real-time ultrasound during arterial cannulation has a higher success rate and lesser complication rate when compared with palpation method [Video].2 The long axis-in plane approach to the cannulation that we used has been shown to have shorter cannulation time and decreased incidence of complications when compared to short axis-out of plane approach.3

Declaration of patient consent
The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest
There are no conflicts of interest.

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