



Ultrasound Guided Analgesic Nerve Blocks for Bilateral Distal Radius Fracture ORIF

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Introduction

Distal radius fractures are one of the most common fractures of the upper extremity. Interestingly, bilateral distal radius fractures (BDRF) are rare, having a poorly describe incidence and associated with inconclusive published analgesic reports.

Case Description

63 year-old-female, 50-kg, presents for Open Reduction Internal Fixation (ORIF) of BDRF. Anesthesia course included nerve-blocks/general-anesthesia. Preoperatively, in the region one finger breath distal to the elbow crease, we performed ultrasound-guided bilateral nerve-blocks of the radial nerve (RN), lateral cutaneous nerve of the forearm (LCNF) and median nerve (MN) through a single introduction site at the respective side. The three nerves form a triangle, with the cephalic vein/LCNF at the apex, the lateral serpentinous RN at the lateral corner and the MN/brachial artery at the medial corner (Figure 1). Ropivacaine 0.5% 18 cc in total was used. Intraoperative Acetaminophen and Dexamethasone 5 mg IV.

In the PACU, the patient had a pain scale of zero with partially retained movement of her fingers and wrist corresponding to a RN block with spared upstream nerves to the brachioradialis and extensor carpi radialis longus and brevis and an unblocked ulnar nerve. There was also preserved motion of the elbow and shoulder. Follow up three days after the surgery showed good analgesia and no evidence for rebound pain.

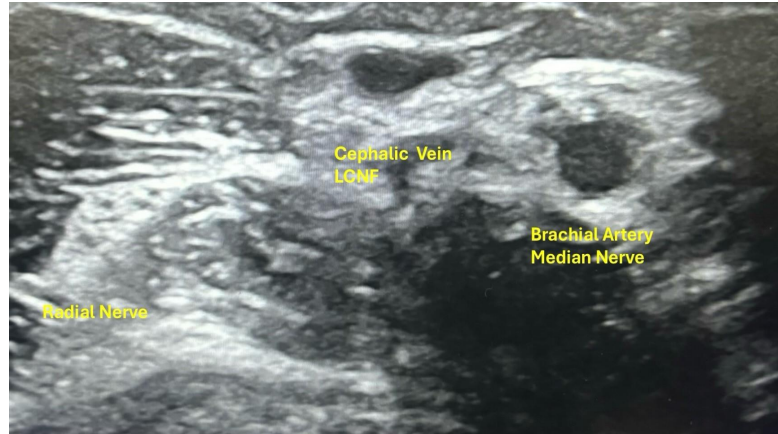


Figure 1

Discussion

Postoperative analgesic concerns with respect to the distal radius ORIF should include the innervation of dermatomes covered by the LCNF, myotomes covered by the RN and the MN via the pronatus quadratus muscle and the osteotomes covered by the RN and MN, although innervation can vary.

Our postoperative goals for this patient were met and included optimization of pain management, primary sensory nerve block with limited motor weakness allowing the patient to carry out activities of daily living, minimizing the risk of rebound pain, and acceptable local anesthetic dosage.

Conclusion

We report a rare case of ORIF of BDRF treated with bilateral ultrasound guided RN, LCNF and MN blocks at the elbow crease for postoperative analgesia.

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