

Case Study

Use of the INnate™ and Acu-Loc® 2 to Treat Right Comminuted Both Bone Forearm Fracture



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Case Presentation

A 34-year-old right-hand dominant male patient presented with a right closed comminuted both bone forearm fracture after a motorcycle crash. His wrist was closed reduced and splinted in the emergency room with plans for surgical stabilization.

Preop Plan

Dane Daley, MD, elected for open reduction internal fixation (ORIF) of the distal third comminuted radial shaft fracture with intramedullary fixation with the INnate™ Intramedullary Threaded Nail for the distal comminuted ulna fracture. This technique allowed for less soft-tissue dissection and only one incision.

Operative Findings and Approach

An extended volar approach of Henry was performed for ORIF of the radial shaft fracture with independent lag screws, a distally based Acu-Loc® 2 Proximal VDR Plates with Extension Plates, and a 4.5 mm x 75 mm INnate™ Intramedullary Threaded Nail. The plate extender was selected given the sagittal plane fracture line that was better appreciated intraoperatively. The distal ulna remained displaced on the lateral after ORIF of the radius, and the decision was made to stabilize the distal ulna with an INnate Intramedullary Threaded Nail.

Follow-up

Postoperatively, the patient was splinted with a short arm splint with follow-up at two weeks. At that time, the splint was removed and he transitioned to a removable wrist brace and started occupational hand therapy. Unfortunately, he made it to only one session, returned to work after three weeks with a brace, and had multiple no-shows for clinical follow-up. His second follow-up was three months postoperatively and he was doing very well. He only had pain with heavy lifting, slightly decreased supination (45 degrees) compared to the contralateral side, but otherwise full functional range of motion. Radiographs at that time demonstrated moderate intraosseous membrane heterotopic ossification, but otherwise progressive healing with maintained alignment.

Preoperative



Postoperative



Two Weeks Postoperative Radiographs



Approximately Three Months Postoperative

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