

Early Clinical Series Using a Branded Implant to Treat Forearm Fragility Fractures

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Purpose: The purpose is to demonstrate an alternative treatment for distal forearm fractures in elderly patients with poor bone quality. In the Medicare population alone, there are approximately 90,000 distal forearm fractures annually in the US. Current treatment options are conservative: closed reduction and immobilization in a cast, or open reduction and internal fixation (ORIF), which may result in skin issues with casting, loss of independence, delaying therapy, and increased time to return to activities of daily living.

Methods: A branded implant was introduced through a small incision at the radial styloid, infused with liquid monomer to expand the implant, and then cured with the application of visible blue light, to treat geriatric patients who had sustained extra-articular or minorly intra-articular fractures of distal radius and/or distal ulna. Patients had poor bone quality, poor skin elasticity, and significant comorbidities. All patients were operated under an upper extremity block and sedation. 13 patients were treated in the first 3 months of the clinician using the device. All were female, median age 75 years (range, 62-89 years). Six patients were treated as inpatients in the hospital. Seven were treated in outpatient surgery center, two patients had distal radius and distal ulna fractures, both fractures treated with branded implants. One patient was treated with an adjunctive volar plate.

Results: All patients were discharged to home within 24 hours. Patients got postoperatively a soft cast that was transitioned to a removable wrist splint within 48 hours. The splint had to be worn during sleep and when out of the house for 2 to 4 weeks. All patients started physical therapy 1 week after surgery. Pain was managed with 800 mg ibuprofen daily, with only 1 patient needing 1 dose of Percocet. There was no secondary loss of reduction, and 1 patient developed de Quervain tenosynovitis.

Conclusion: The branded implant is an excellent alternative to conservative treatment or ORIF that enables patients to remain mobile and independent without the risk of a major surgery.



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