

CASE STUDY



Reconstruction of a Displaced Volar Lunate Facet Fracture with Carpal Subluxation Utilizing APTUS Lunate Facet and Dorsal Spanning Plates

The Surgeon

Dr. Louis Catalano III - Hand to Elbow Orthopedic Specialist and Surgeon

Dr. Louis Catalano is a board-certified, fellowship-trained hand and upper extremity surgeon with over 23 years of experience, currently practicing at the Steadman-Hawkins Clinic and UC Anschutz Medical Center in Denver, Colorado. He is a Professor of Orthopaedics at the University of Colorado Anschutz Medical Campus and Director of the Hand and Upper Extremity Fellowship. Dr. Catalano earned his M.D. from New York University School of Medicine and completed specialized fellowships in hand, shoulder, and upper extremity surgery.

The Case



Patient Profile

A 33-year-old male computer scientist presented with a wrist injury sustained during a snowboarding accident two and a half months prior. Over that period of time, the patient experienced ongoing pain and stiffness.



Pre-Treatment Imaging and Diagnosis

Over the 2.5 months preceding his clinic visit, the patient reported ongoing wrist pain and stiffness following a fall. The patient had not sought medical attention until presenting to me. Imaging, including X-rays and MRI, demonstrated a displaced volar lunate facet fracture accompanied by volar carpal subluxation. (Figures 1 & 2)



Figure 1



Figure 2



Surgical Treatment

The ORIF procedure began with a volar ulnar approach with an incision between the flexor tendons and the ulnar neurovascular bundle. I find this approach provides better visualization of the highly vascular area than a standard radial FCR approach.

Once the fracture was reduced, the Medartis Lunate Facet plate was used to fixate the fracture which led to a correction of the volar carpal subluxation. The Medartis Straight Dorsal Spanning plate was then used to maintain a reduced radiocarpal joint during fracture healing.



Figure 3



Figure 4



Figure 5



Post-Operative Treatment

At the 4 month follow-up, the Dorsal Spanning Plate was removed and the patient began occupational therapy to regain strength and range of motion.

At the final follow-up, conducted 5 months after the removal of the dorsal spanning plate, the patient reported no pain and demonstrated full finger range of motion. Wrist flexion was 55 degrees, wrist extension 55 degrees, and pronosupination was fully restored. (Figures 6 & 7)



Figure 6



Figure 7



Conclusion

The use of the Medartis Lunate Facet Plate proved to be an effective solution for the management of a volar ulnar corner fracture. The plate's low-profile design and targeted fixation allowed for precise anatomical restoration and stable fixation of the ulnar corner, while minimizing soft tissue irritation.

This case highlights the versatility and utility of the Medartis Lunate Facet Plate in addressing complex distal radius fractures, especially in scenarios requiring secure fixation of small, intra-articular fragments.

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