

Proximally Extruded Volar Lunate Dislocation

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INTRODUCTION:

Perilunate dissociations, sequelae to high energy injuries to the wrist composes approximately 10% of carpal injuries ^[1]. An anomalous form of presentation is perilunate dissociation with lunate extrusion; possibly an aberrant variety of Mayfield Stage IV ^[2]. We present a 65-year-old gentleman with Mayfield Stage 4 perilunate dissociation with proximally migrated extrusion of lunate and comminuted fracture left radial styloid managed with open reduction of left lunate, K-wiring, cross-wrist external fixation and carpal tunnel release.

REPORT:

A 65-year-old right hand dominant gentleman presented with pain and swelling over the left wrist following a high velocity head-on collision.

Plain radiographs and computed tomography scan revealed volar lunate dislocation which completely extruded proximally from the radiocarpal joint. Emergent surgery was done; open reduction through volar approach, revealing a volarly dislocated, proximally extruded lunate with 90% ligamentous disruption. Transverse carpal ligament was released and the extruded lunate reduced, consecutively stabilized with K-wires and volar capsule repaired. Cross-wrist external fixation was done in view of the concurrent comminuted fracture of the radial styloid.

Postoperatively, the construct was kept for 8 weeks, subsequently removed during follow up and initiated on range of motion exercises. Thus far, no signs of avascular necrosis and had acceptable wrist range of motion. The patient reported satisfaction with the surgical results concurrently being compliant to ongoing physiotherapy sessions.

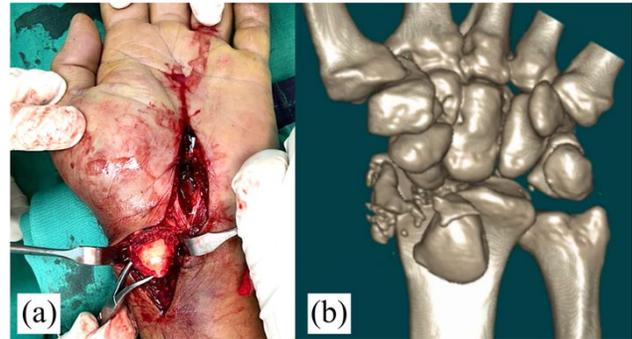


Figure 1: (a) Intraoperative and (b) CT 3D-Reconstruction of Left wrist



Figure 2: Image-intensifier guided K-wire construct

CONCLUSION:

With hardware and time constraints, volar lunate dislocation with proximal extrusion could be managed with open reduction, K-wiring and cross-wrist external fixation, thereafter close monitoring for avascular necrosis and deciding on the duration of immobilization factoring between carpal stability versus wrist stiffness.

REFERENCES:

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