# Peritrapezoid Axial Fracture Dislocation of the Hand with Perilunate injury

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## INTRODUCTION:

Axial fracture-dislocation of the hands are uncommon, occurring in only 1.4% of cases with carpal fractures or dislocations.[1] Typically resulting from crush injuries, they lead to extensive disruption across proximal and distal carpal rows, with a longitudinal split between metacarpal bases and the carpus. Treatment consisted of open reduction and percutaneous K-wire fixation in most cases. Outcomes are heavily influenced by the initial extent of soft tissue injury.[1] Here we report a patient who incurred a peritrapezoid axial fracture dislocation of the hand with perilunate dislocation.

## REPORT:

A 39-year-old gentleman was hit at the back of a lorry while riding a motorcycle, sustaining a direct trauma to the right wrist in hyperextended position. On physical examination, the hand and wrist were markedly swollen but the skin was intact. There was decreased sensation of the median nerve distribution. Plain radiographs of the hand showed widening between second and third metacarpal bones with perilunate dislocation. Computed tomography of hand confirmed the findings with addition of trapezoid fracture. We then proceeded with carpal tunnel release, open reduction via dorsal approach and K-wire fixation. Diamond shaped K-wire fixation was done in addition to transmetacarpal and trapezoid K-wire. Volar capsule was also repaired during the carpal tunnel release. Post operatively, Gilula's line was restored.

**Figure 1:** Pre-operative plain radiograph of right wrist

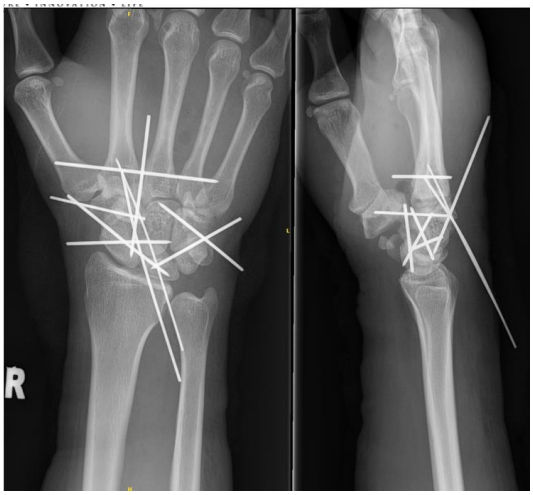


**Figure 2:** Post-operative plain radiograph of right wrist

## CONCLUSION:

Axial dislocations in the hand are rare, high-energy injuries. Hence, timely radiographic detection is essential to avoid dire consequences[2]. Early management of both the skeletal and soft tissue components of the injury seems most effective to avoid long term complications.

## REFERENCES:

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2. Reinsmith LE, Garcia-Elias M, Gilula LA. Traumatic axial dislocation injuries of the wrist. Radiology. 2013;267(3):680-689.