Perilunate Fracture Dislocations: Diagnosis and Treatment

Lauren Santiesteban, MD
UCSF Department of Orthopaedic Surgery
Hand & Upper Extremity
Assistant Clinical Professor

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Disclosures

- None
Perilunate Injuries

- High energy trauma
- Wrist injuries ~2.5% of all ED visits
  - 5-7% of carpal injuries are perilunates
  - 25% are missed injuries
  - 10% open injuries
  - 26% are associated with polytrauma
  - Acute median nerve symptoms range from 24% - 45%
Perilunate Injuries

- Perilunate vs Lunate dislocations
  - Perilunate fracture-dislocations
  - 97% are dorsal, 3% are volar
  - Trans-scaphoid perilunate 61% of all injuries
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Carpal Arcs
Mayfield Classification
Diagnosis and Imaging

- Standard wrist PA and lateral radiographs
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- CT imaging
  - Occult fractures
  - Preoperative planning
Management

- Initial management
- +/- Acute carpal tunnel
- Surgical timing
- Approach
  - Volar
  - Dorsal
  - Combined
- +/- Fractures
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Operative Sequence

- Goal is to get the lunate in neutral
- Fracture fixation
- Pin SL, LT and +/- SC
- Repair SL ligament
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Outcomes

- Poor prognosis:
  - Open injuries
  - Delayed treatment
  - Osteochondral fractures of capitate
  - Persistent carpal malalignment

- Improved outcomes
  - Early reduction and stable fixation with ligament repair
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- Improved outcomes
  - Early reduction and stable fixation with ligament repair

- Wrist flexion/extension: 60-70%
- Grip strength: 70-80%
- Posttraumatic arthritis: approaches 100%
  - Midcarpal and/or radiocarpal
- Most patients are able to return to their occupation
# Outcomes

## Table 1

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Spencer J. Stanbury, MD, and John C. Elfar, MD
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