

2015 AAHS Comprehensive Hand Review Course
Distal Radius Fractures – A Case Based Discussion
The Use of Distraction Plating in the Treatment of Distal Radius Fractures
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Indications

- Distal radius fractures with metaphyseal/diaphyseal extension
- Highly comminuted distal radius fractures in the elderly
- Neutralization device
 - Radiocarpal fracture-dislocation or articular shear patterns
 - Multiple-trauma patient requiring weight-bearing through the upper extremities
 - Compromised soft-tissue

Technique

- 3 dorsal incisions
 - Metacarpal, Lister's tubercle, Brachioradialis-ECRB/ECRL interval
- Index vs. Long metacarpal
- Reduction maneuver – traction and supination
- Evaluation of digital ROM
- Removal at 3-4 months post-op (mean 119 days) for metaphyseal/diaphyseal patterns; sooner in metaphyseal distal radius patterns

Complications

- Digital stiffness
- Hardware failure
- CRPS
- Transient superficial radial neuritis
- Tendon injury

Outcomes

- Maintenance of radial length for all indications
- Highly comminuted fractures in the elderly
 - Mean flex/ext arc 96 deg, mean pron/supination 156 deg
 - Mean DASH 32
- Fractures with metaphyseal/diaphyseal comminution
 - Mean flex/ext arc 122 deg, mean pron/supination 153 deg
 - Mean DASH 11.5
- Duration of immobilization with distraction plate does not correlate with range of motion or DASH scores at 1 year post-operatively