Complications of Distal Radius Fractures

History
- Colles 1814
- Smith 1847
- Barton 1838

Complications of Distal Radius Fractures
- 1979
  “They all do Well”

Closed Reduction and Cast
- Cotton Loder Position
- Carpal Tunnel
- Stiff MP’s
- Stiff Wrist
- Stiff Elbow
- Sore Shoulder

35 year old nurse

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Complications of Distal Radius Fractures

• Complex Regional Pain Syndrome (Carpal Tunnel, nerve contusion)
• Radial Sensory Neuritis
• Malunion
• Non Union
• Loss of Motion
• Tendon Rupture

87 year old woman, Wrist Fracture
45 years ago
Chief complaint of trigger finger

Complications of Distal Radius Fractures

• DRUJ
• Carpal Instability
• Mid Carpal Instability secondary to dorsal Angulation

87 year old woman
Malunion 1981

Malunion 1983
Osteotomy/Arthrodesis

Open Complex

20 year follow up
65 Year Old Man, Distal Radius Malunion DISI

Proximal Row Carpectomy

Volar Approach, opening dorsal wedge osteotomy
Malunion with DRUJ Dislocation
Shear Fracture

Loss of Supination

Non Union
Locking Distal Radius Plates
2.4mm

Volar Plate - Buttress Plate
Thickness: 2mm

Screw & Hole Design
2.4mm Locking Screws
- StarDrive™ recess (Torx T8)
- Depth: 1.4mm
StarDrive™ Screw Driver
- Self-Retaining

Palmar Approach

Palmar Plate - Function
Distal part function like a rake through angular stability
Buttress articular surface

Malunion with Volar Plate
Volar approach, coral bone graft

82yo with loss of thumb flexion

Plate or “Proud” Screw

Stable IPJ

Delayed Primary Repair
Q4. How many patients with complete flexor tendon ruptures following volar plating of distal radius fractures have you encountered over the past year?

294 patients identified.

Q5. How many of each of the following flexor tendon injuries following volar plating of distal radius fractures have you encountered over the past year?

338 Flexor tendon ruptures identified.

Q7. How many of the volar plates removed for symptomatic tendon irritation or rupture over the past year were proximal and distal to the watershed line, respectively?

The location of 146 volar plates removed were not assessed or remembered.

Q8. How many of the volar plates removed for symptomatic tendon irritation or rupture over the past year were classified as Grade 0, 1, or 2, respectively, according to the Soong grading system (description given below)?

204 plates were not evaluated using the Soong grading system.

Tips for plate removal

- Over drill screws from dorsal
- "Crown" or hollow tip drill
- Midas Rex, use ultrasound gel to collect metal shaving