Distal Radius Fractures – Always volar? Graft? 2nd Plate

ORTHOPAEDIC TRAUMA BOOT CAMP

October 5, 2016

Thomas F. Varecka

Hennepin County Medical Center

Minneapolis, Minnesota

1) Treatment Goals:
   a. Anatomic/Near Anatomic Restoration
      i. Radial Length
      ii. Volar Inclination
      iii. DRUJ Stability
   b. Stability
      i. Sufficient Strength to allow Early Functional Use

2) Options
   a. Locked Volar Plating
      i. Currently the Gold Standard?
      ii. Reliable
      iii. User Friendly
      iv. Few Complications
   b. Dorsal Plating
      i. Extensive Early Experience
      ii. Biomechanically Equivalent to Volar Plating
      iii. Extensor Tensor Tendons Intimidating
      iv. Perceived Difficulty
         1. 3rd vs 4th Compartment Exposure
   c. Volar and Dorsal Plating
      i. Special Circumstances
         1. Volar and/or Dorsal Rim Fractures
         2. Lunate Facet Fractures, i.e., Volar or Dorsal Corner
         3. Efficacy/Safety Demonstrated
         4. Allows Early Rehabilitation
   d. Bone Grafting
i. To Fill Metaphyseal Void/Crush
ii. Obsolete with Volar Locking Plates??
iii. Allograft vs Autograft vs BG Substitute?
   1. Biologics Not as Reliable

e. Additional Plate(s)
   i. Volar-Dorsal
      1. Highly Comminuted DR Fx’s
      2. See above
   ii. Radial Styloid Plate
      1. Bi-planar Fixation
      2. Greater Strength/Fatigue Resistance
   iii. Fragment Specific Fixation
      1. Technically demanding
      2. Less Soft Tissue Damage
      3. Allow for Early Rehabilitation

3) Conclusions
   a. Use the Method Best Suited to Fracture Pattern
   b. Use Method With Which Surgeon Most Familiar
   c. Literature Fails to Support
      i. Superiority of One Method Over Others
      ii. Superiority of One Manufacturer Over Others

References


