



University of California
San Francisco



Forearm Cases

20th Annual International San Francisco Orthopaedic Trauma Course

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4/16/2026

Case AM

HPI: 18 yo RHD M sustained multiple GSW, including to LUE

PE: GSW proximal forearm

Intact sensation in median, radial and ulnar nerves

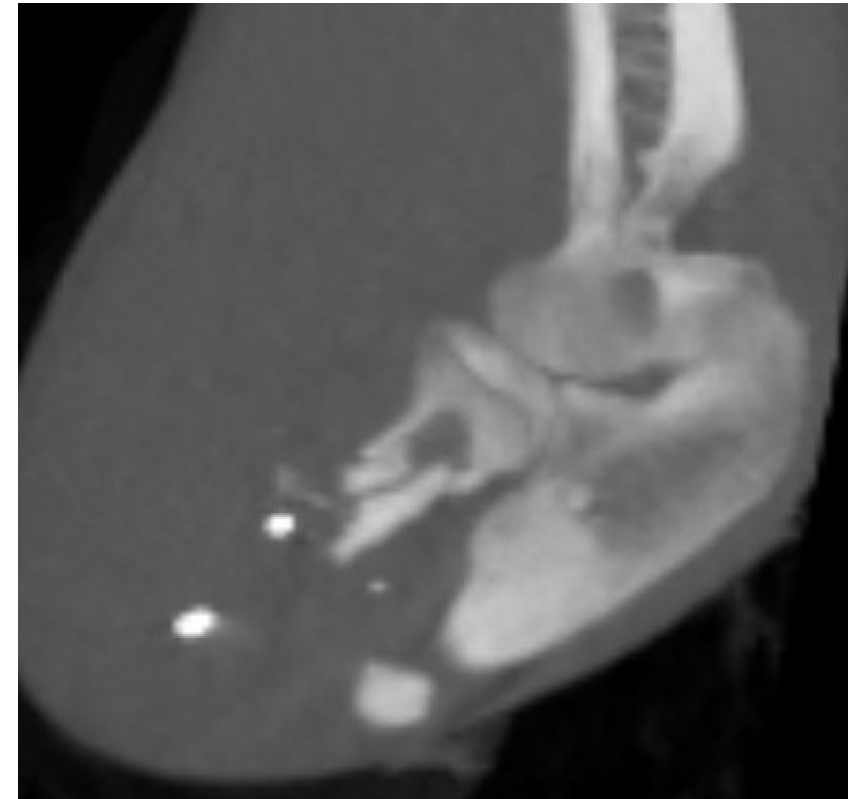
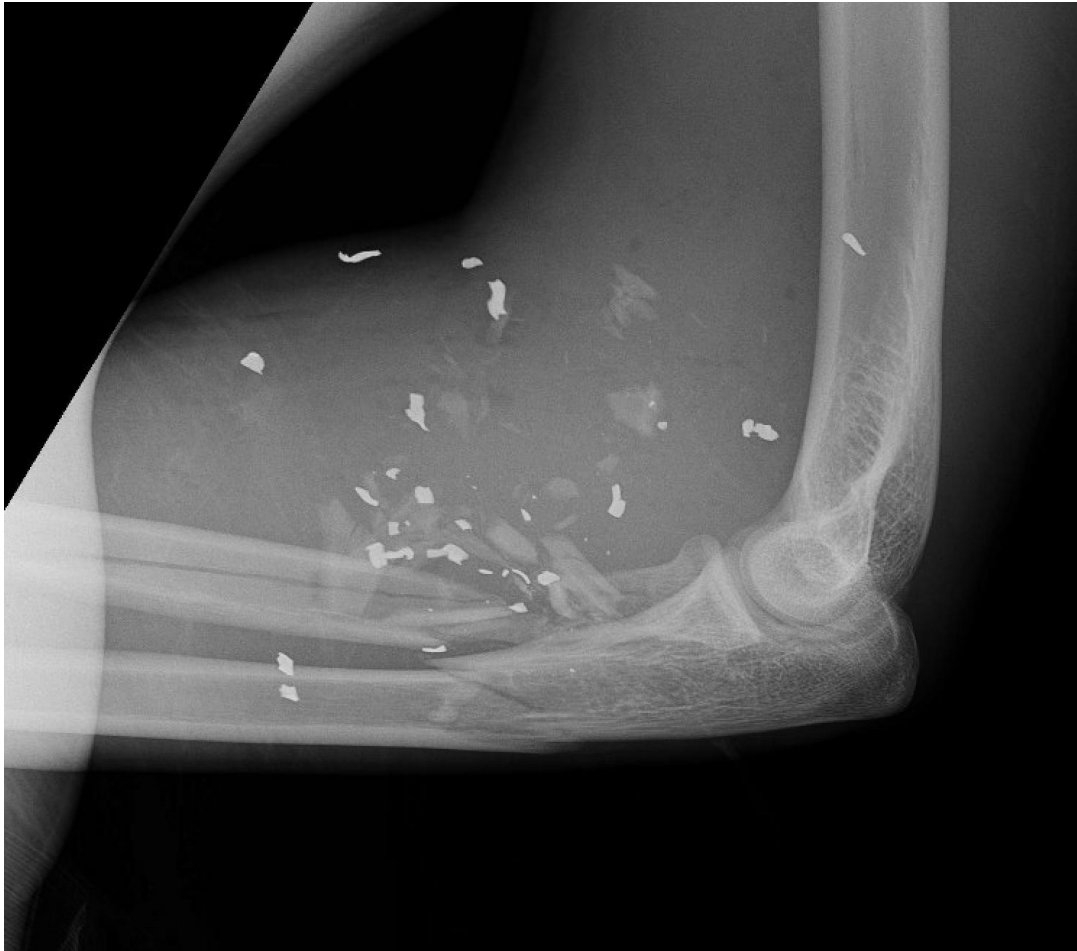
Unable to extend fingers or wrist

Compartments compressible, no pain with passive finger extension

2+ radial pulse

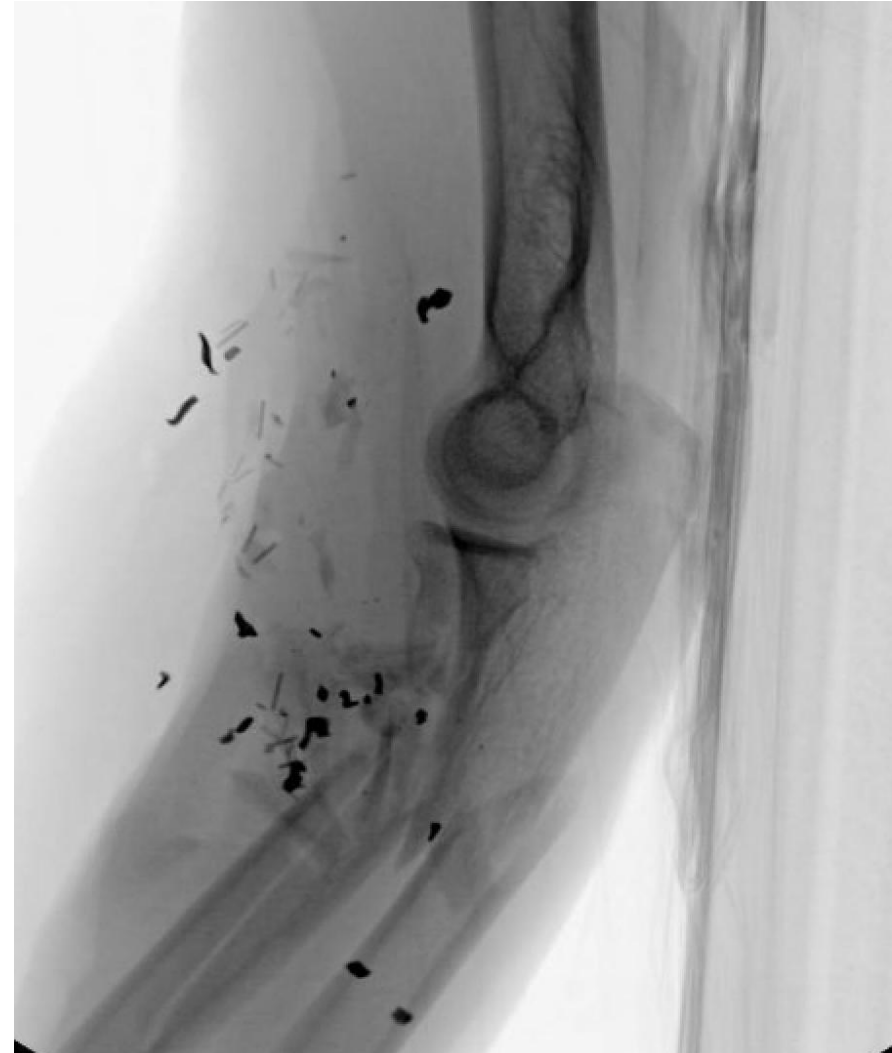
Case AM

Injury Films



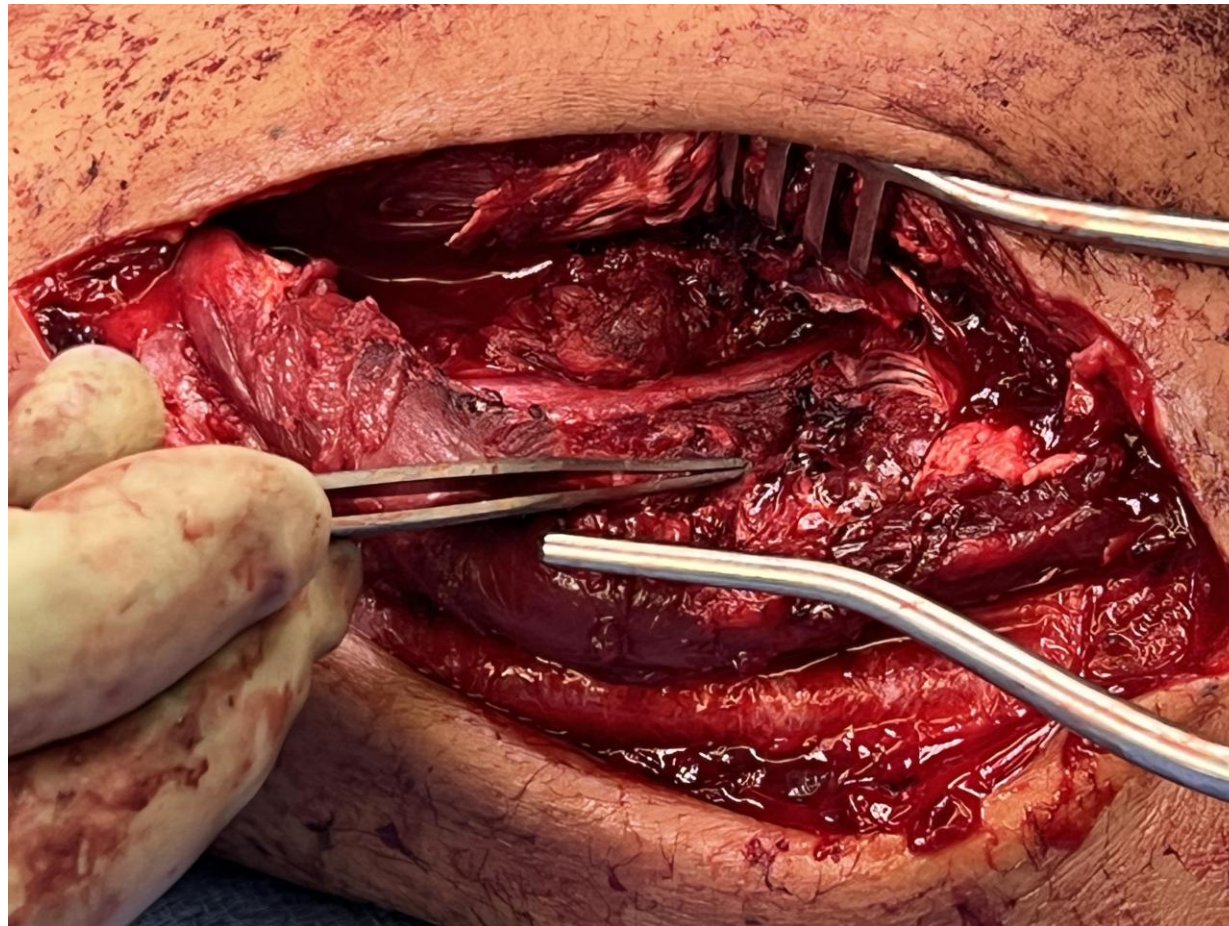
Case AM

2/27: OR for I&D



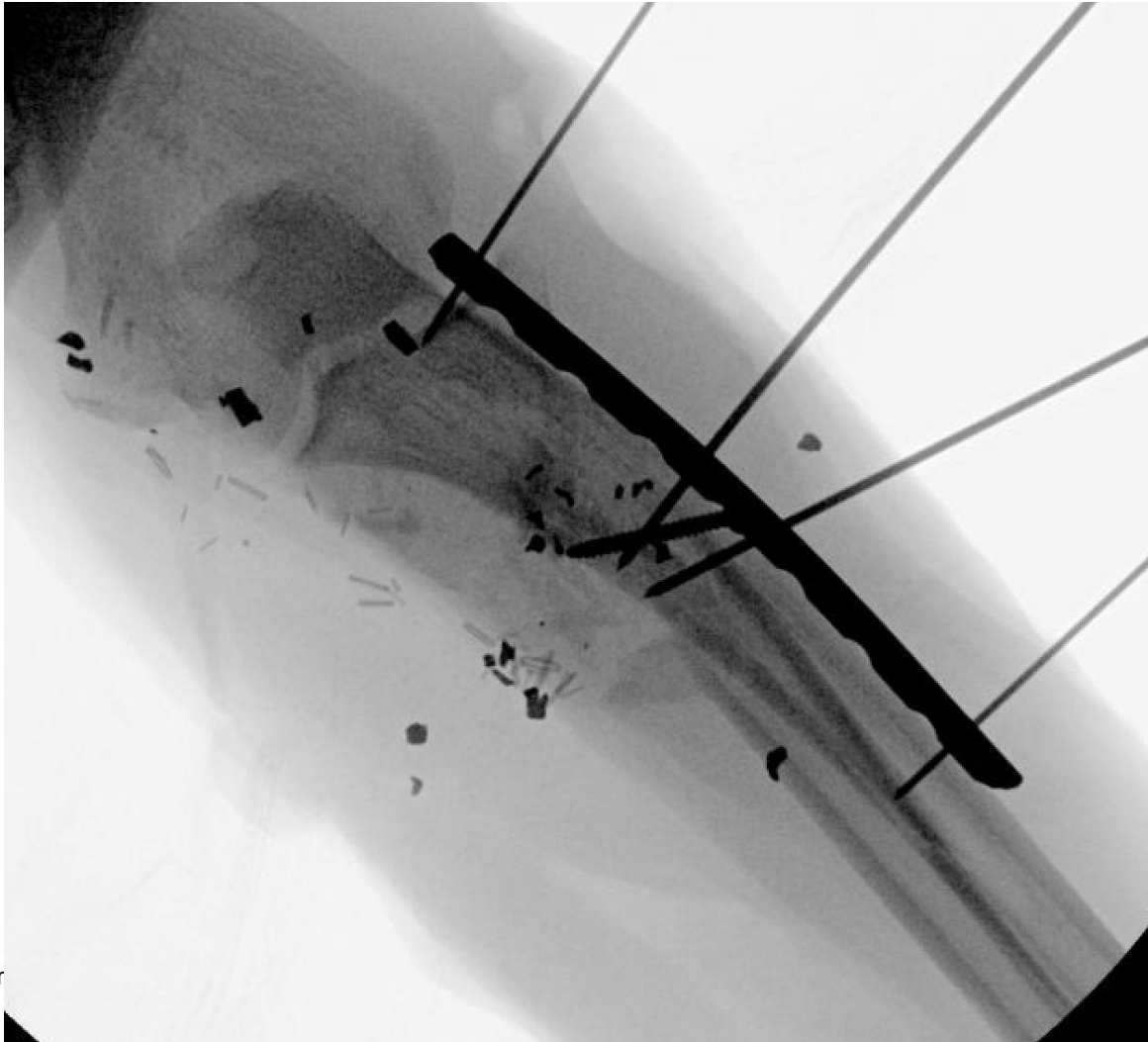
Case AM

3/2: OR for I&D, PIN exploration, ORIF proximal ulna



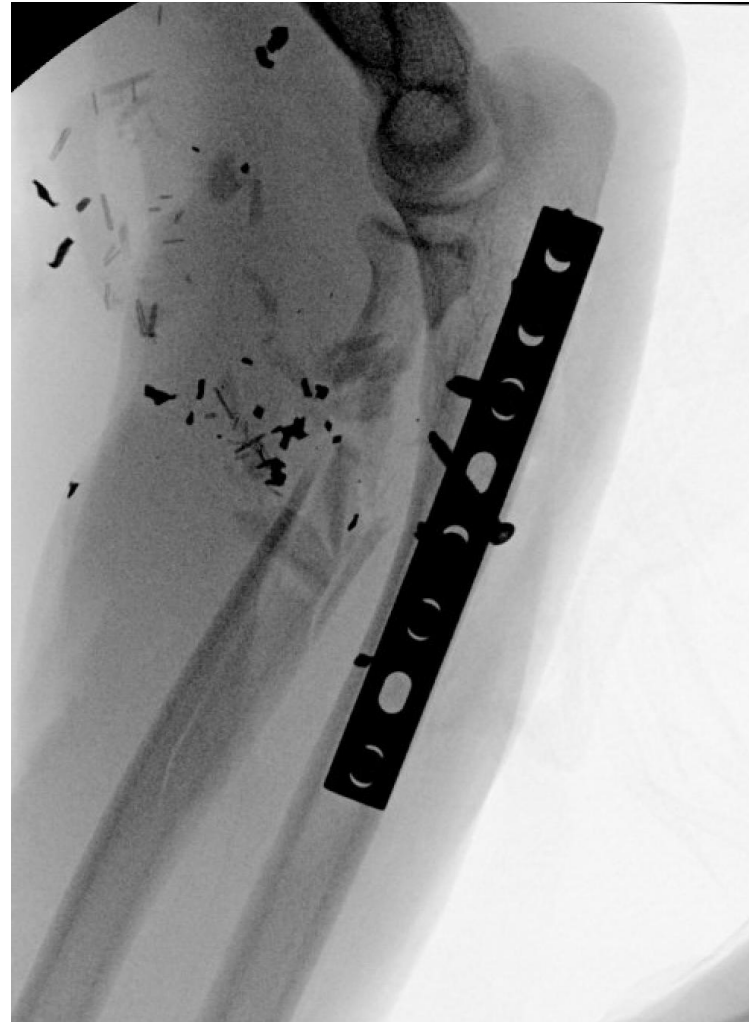
Case AM

3/2: OR for I&D, PIN exploration, ORIF proximal forearm



Case AM

3/2: OR for I&D, PIN exploration, ORIF proximal forearm



Case AM

What about proximal radius?

3/2: OR for I&D, PIN exploration, ORIF proximal forearm



Case AM

Nonoperative Treatment for Proximal Radius

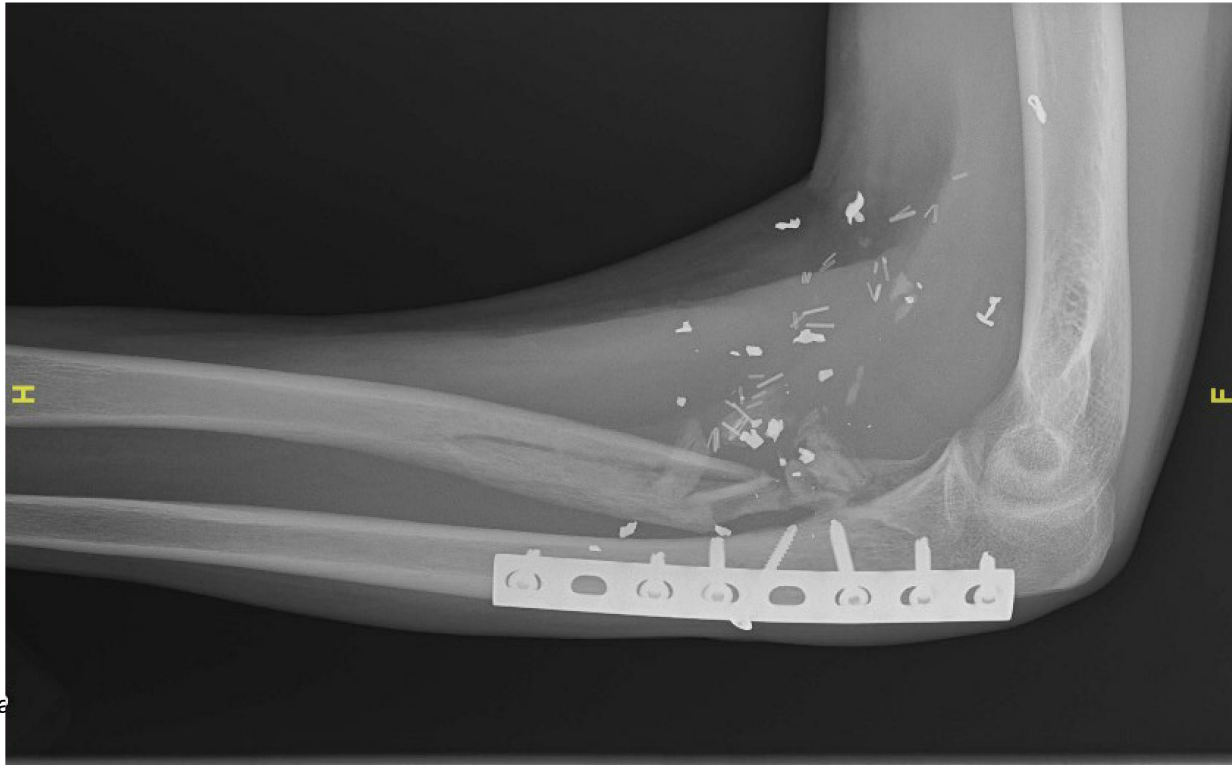
- Wks 0-2: Posterior long arm splint in supination
- Wks 2-6: Munster cast in neutral
- Wks 6-12: Active forearm rotation



Case AM

5/17 Clinic Follow-Up

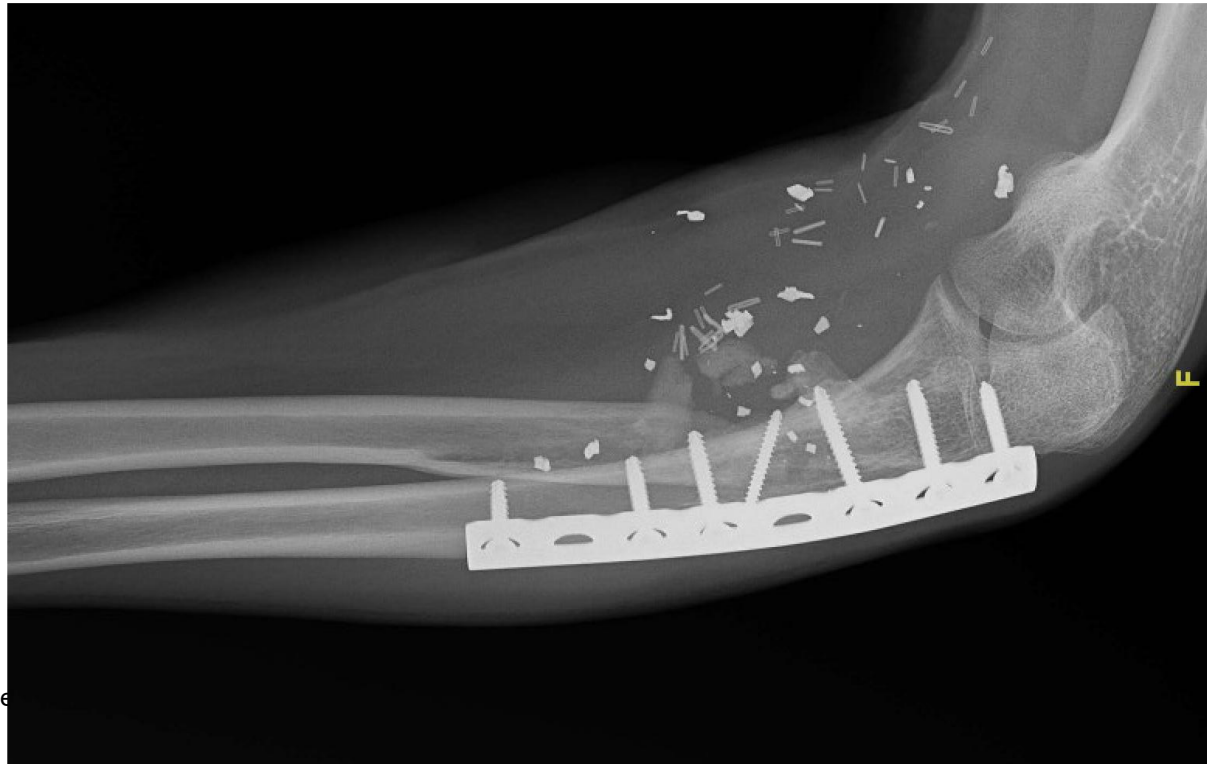
- Munster cast x6wks then active rotation
- Improving forearm rotation and pain
- PIN recovering



Case AM

8/30 Clinic Follow-Up

- Near full pronation/supination
- No pain
- PIN recovering (4/5 strength)



Case JY

HPI: 28 yo M fell while skateboarding p/w BUE injuries.



Case JY

9/8/22: ORIF L scaphoid, capitate, CTR



Case JY

9/8/22: ORIF R radius

- DRUJ unstable after radius ORIF



Treatment Approach to DRUJ Instability:

- Casting?
- Pinning?
- TFCC Repair?

Case JY

9/8/22: ORIF R radius, ORIF ulnar styloid and TFCC Repair

- DRUJ unstable after radius ORIF



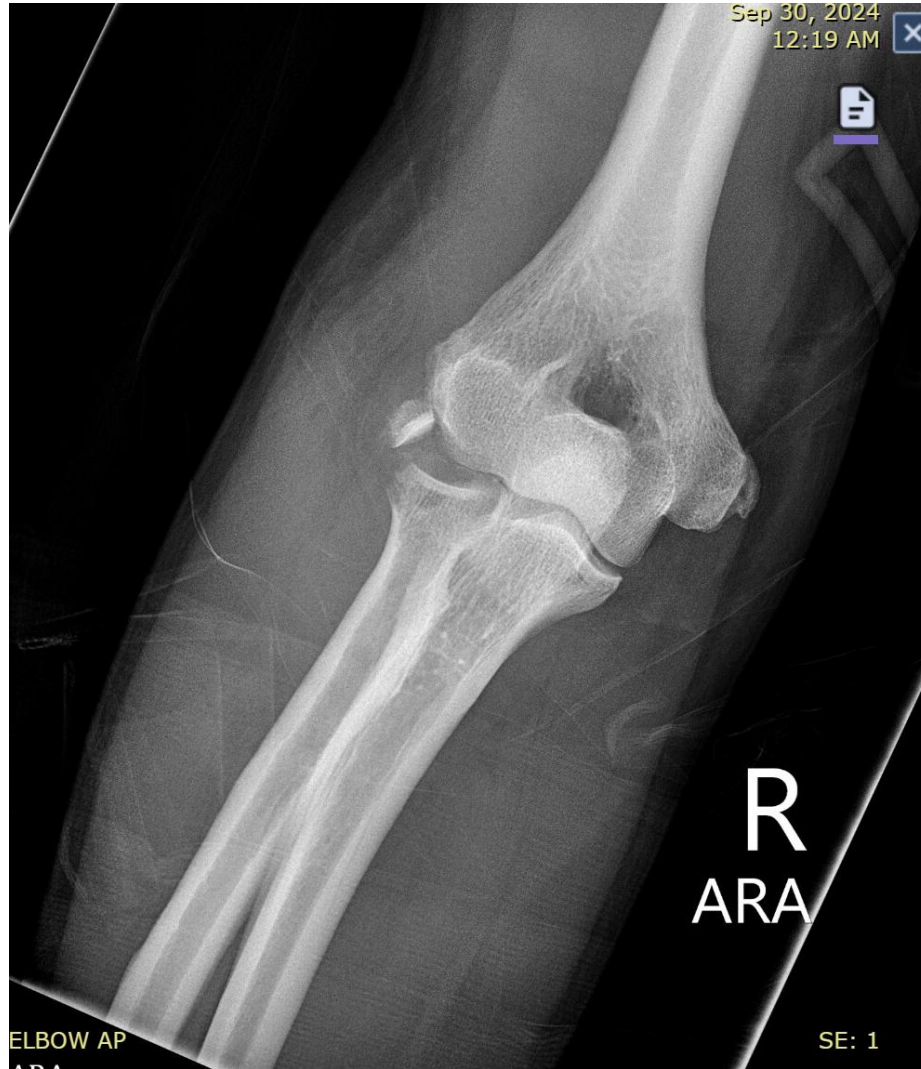
Case RF

HPI: 71 yo M fell off electric scooter, p/w R shoulder, elbow and wrist pain.

- XR show R posterior shoulder dislocation
- R elbow XR below
- DNVI

Case RF

Injury XR



Case RF

Injury XR



Case RF

Injury CT

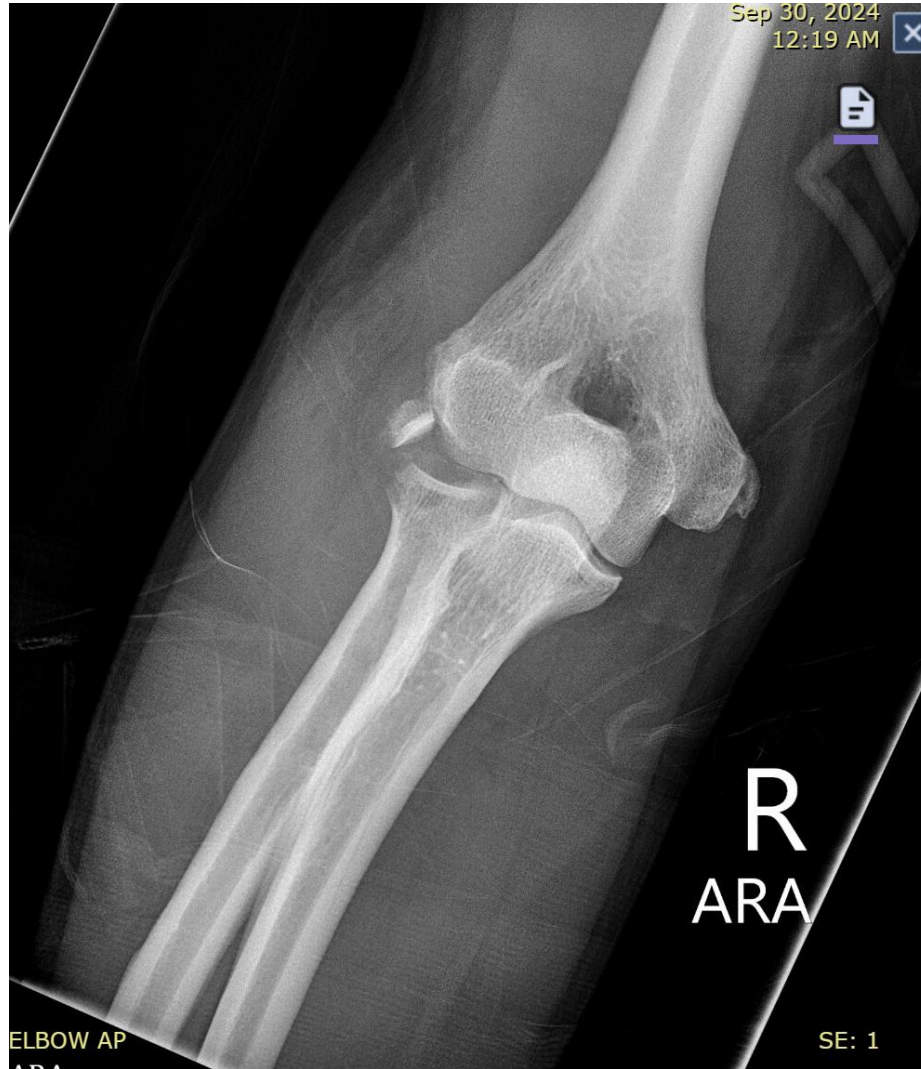


Case RF

What makes you suspicious about instability?

Case RF

Injury XR



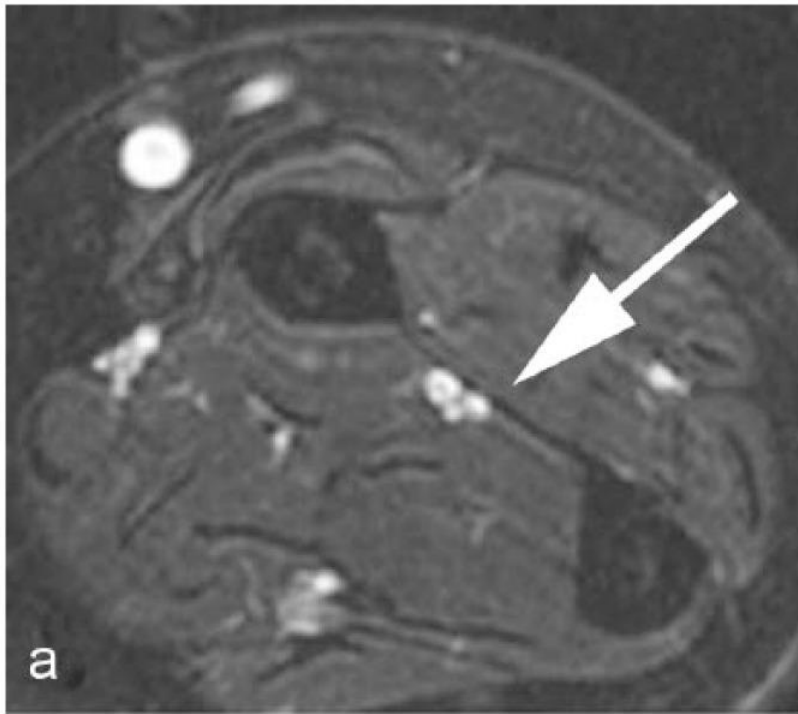
Case RF

How would you assess for longitudinal instability?

Additional imaging?

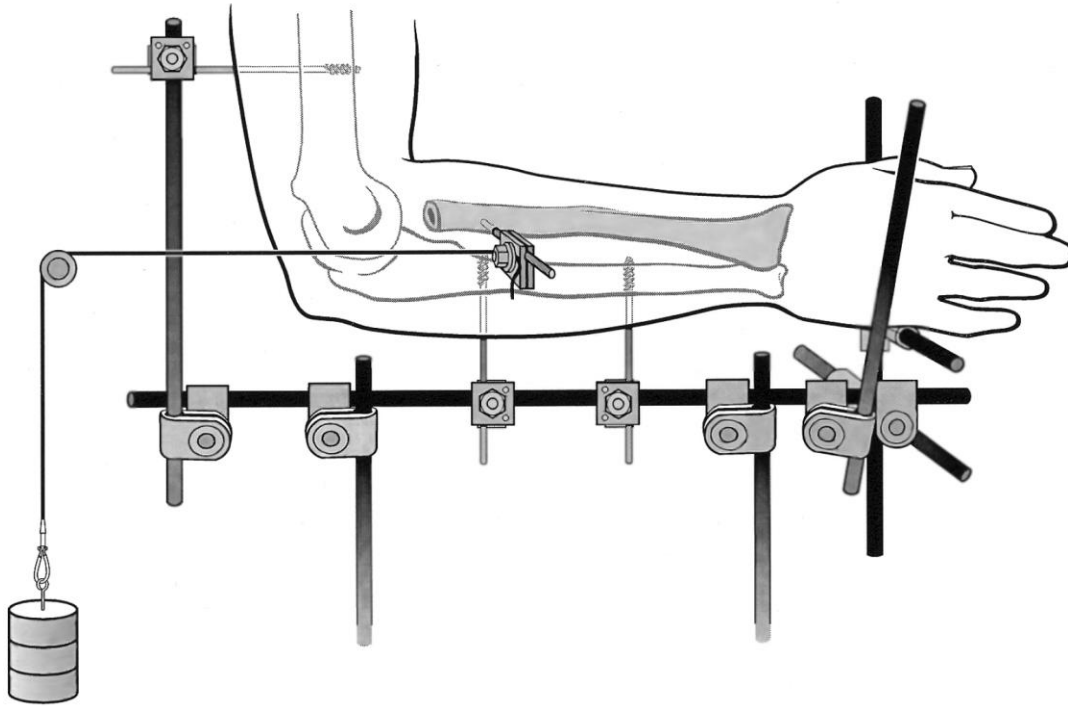
MRI for IOM Injury iso RHFx

Unclear if IOM injury correlates with radial head fx severity



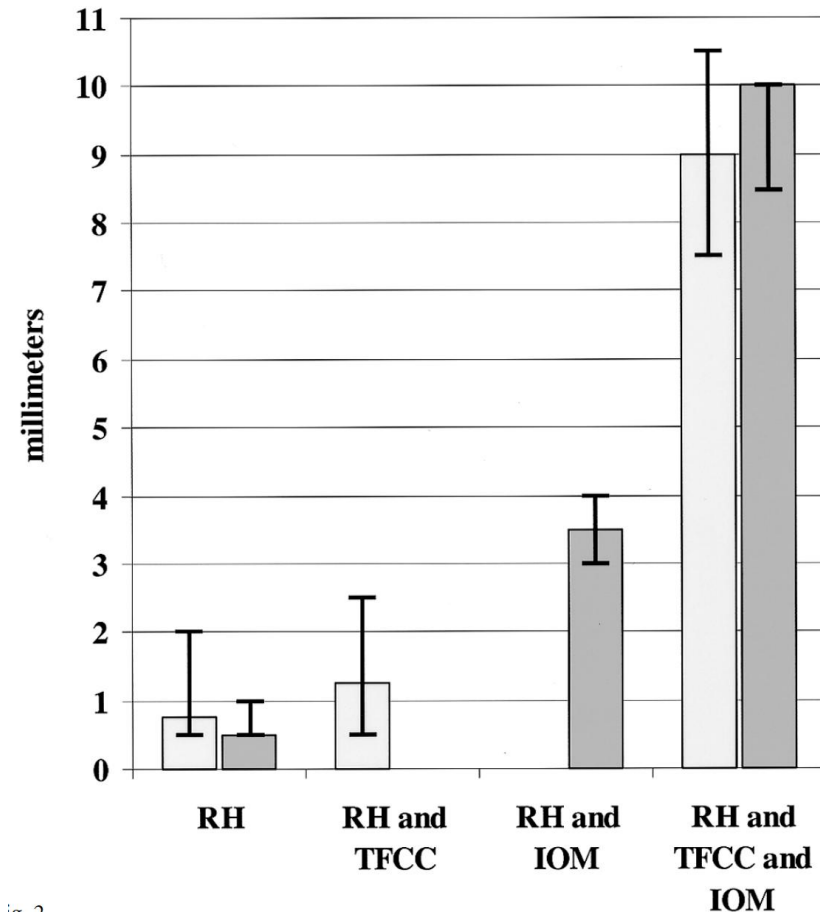
Intraoperative Assessment

Radius Pull Test



Smith et al. 2002

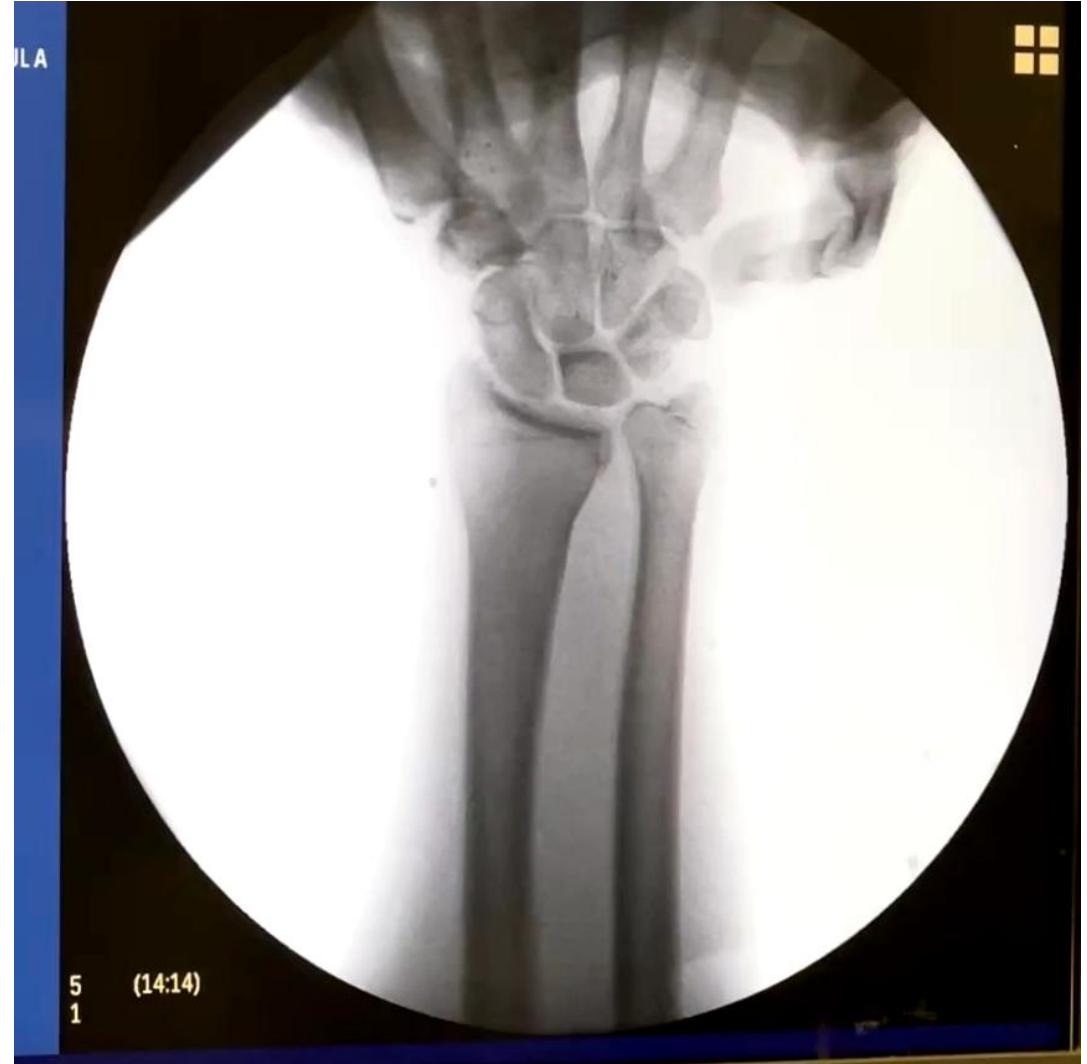
Radial Migration with Load



Case RF

Intraoperative Exam

- Radial head fracture
- Longitudinal instability



Case RF

Intraoperative Exam

- Radial head fracture
- Longitudinal instability



Case RF

Intraoperative Exam

- Radial head fracture
- Longitudinal instability
- Some transverse instability?



Essex-Lopresti

Treatment Principles

- Radial head ORIF vs arthroplasty
 - **Do NOT excise**
- DRUJ stabilization



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Case RF

Treatment Approach

1. Radial head arthroplasty



Case RF

How can you judge radial implant height in setting of longitudinal instability?

- Avoid overstuffing radiocapitellar joint
- Proximal migration of radius

Case RF

Contralateral Wrist Imaging

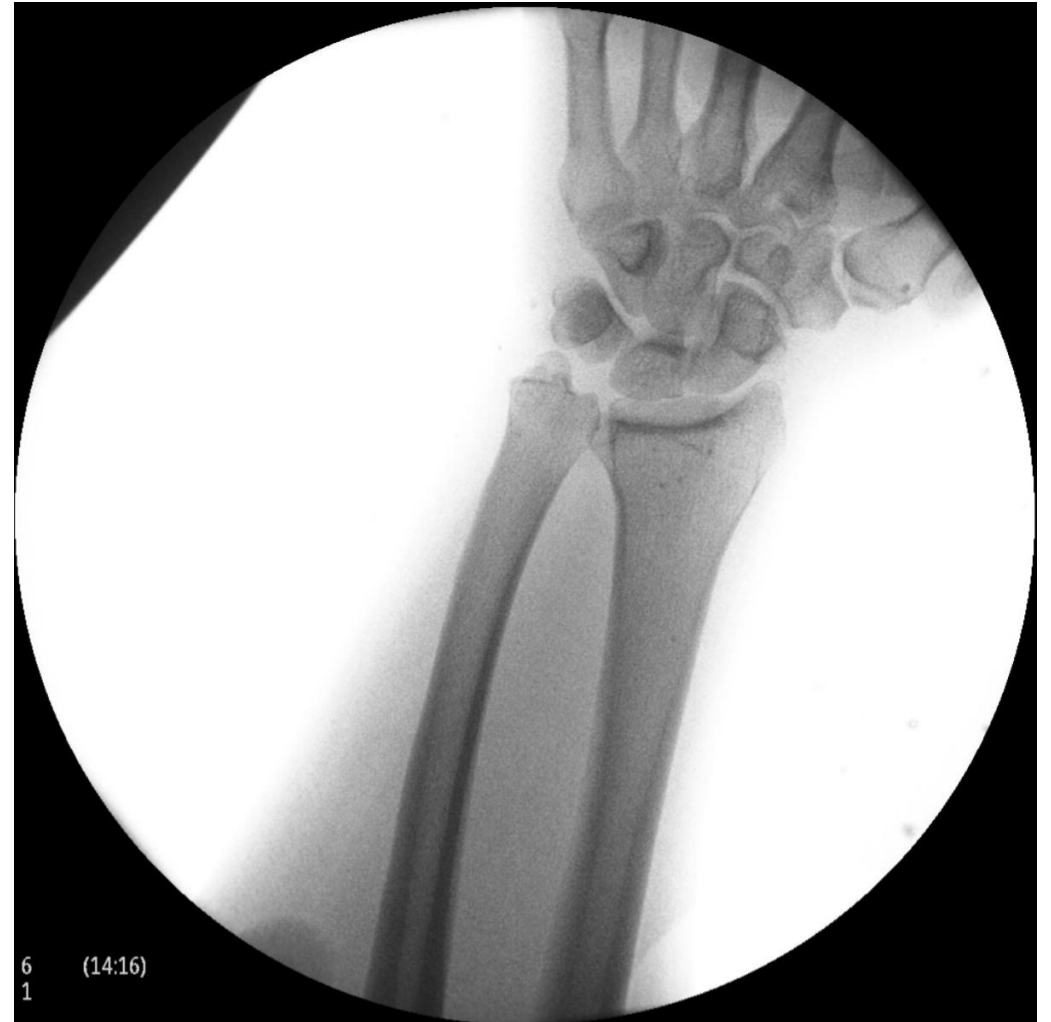


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3 (13:12)
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Case RF



Case RF

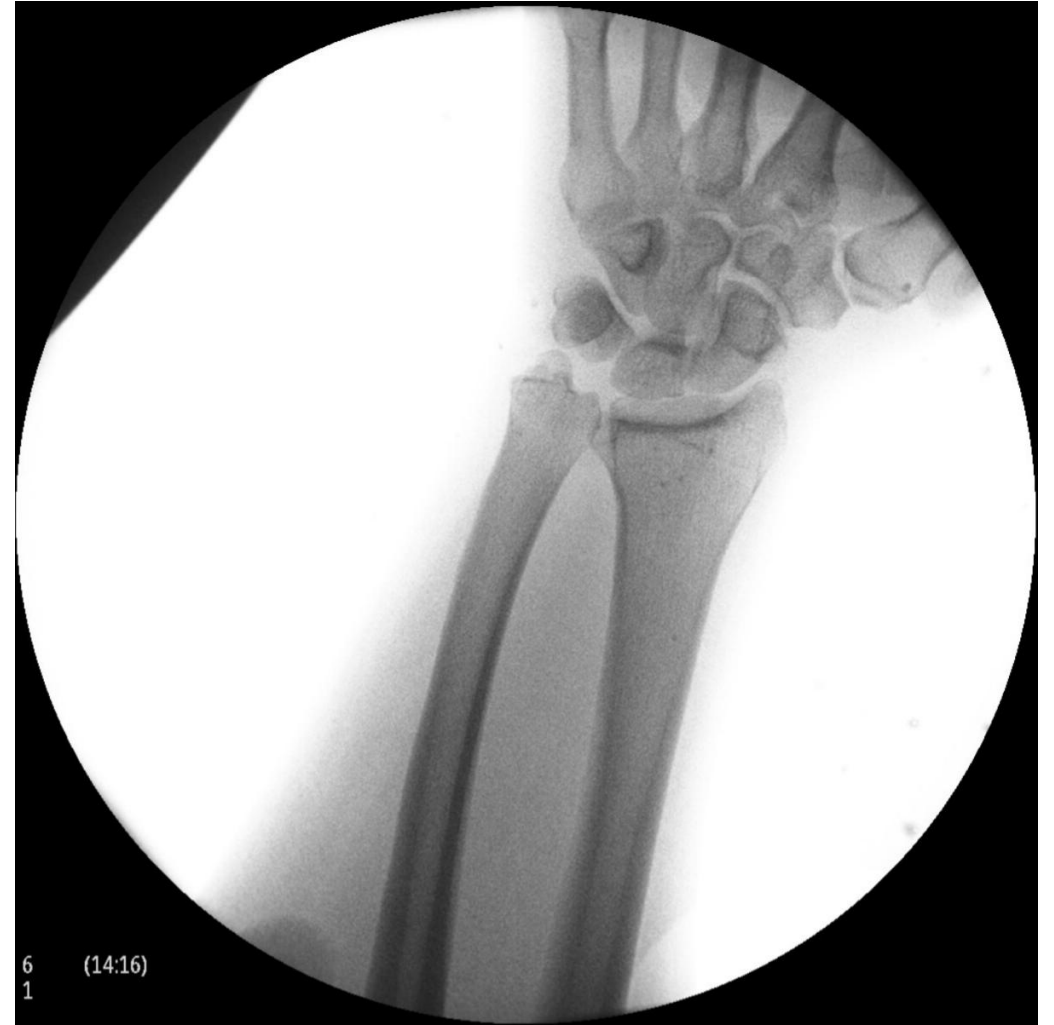
Treatment Approach

1. Radial head arthroplasty
2. DRUJ pinning vs IOM recon?



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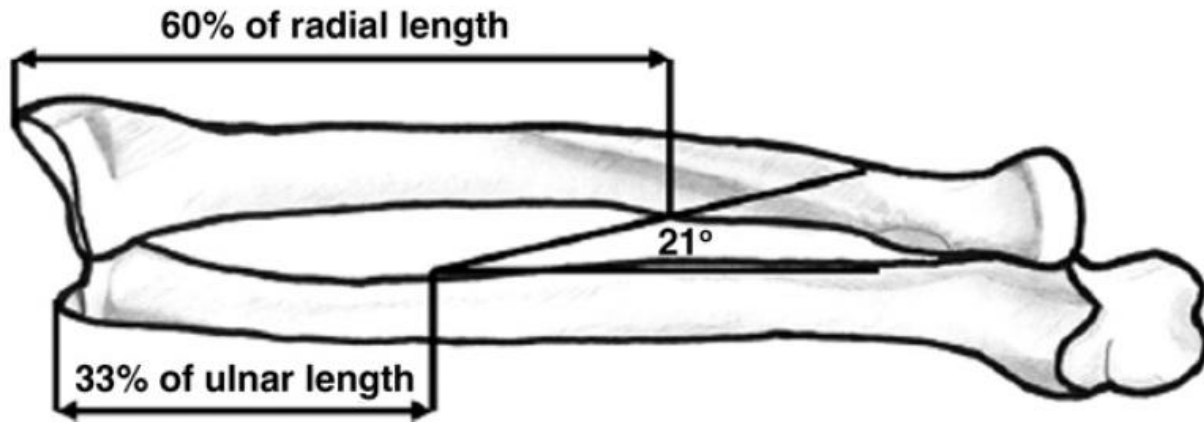
Case RF



Case RF

Acute IOM Reconstruction

LONGITUDINAL RADIOULNAR DISSOCIATION



Case RF

Acute IOM Reconstruction



Case RF



Essex-Lopresti

Treatment Principles

- Radial head ORIF vs arthroplasty
 - **Do NOT excise**
- DRUJ stabilization
 - Pinning vs IOM recon?



Thank You

