Radial Head Fractures

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1. Anatomy
2. Classification-Not as helpful as interobserver agreement poor
    a. Mason (described in 1954)
        Type I-no displacement
        Type II- sector fracture with displacement
        Type III-Comminuted
        Type IV-Any radial head fracture with dislocation (added in 1962)
    b. Broberg & Morrey (described in 1987)
        Type I-less than 2 mm displacement and <30% of articular surface
        Type II- displaced > 2mm and involves >30% of articular surface
3. Treatment Algorithm
    a. Careful exam and radiographs
    b. No mechanical block=non operative
    c. Displaced/comminuted fractures=surgery
    d. Careful consideration and EUA for additional injuries
4. ORIF
    a. Simple articular fractures
    b. Partial articular fractures
    c. Tips
        i. Place plates on non-articulating portion of radial head
        ii. Countersunk screws can be used from radial head into neck
5. Replace
    a. Comminuted fractures when stable internal fixation not possible
    b. Factors for consideration
        i. Associated ligamentous injuries
        ii. Associated bony injuries
        iii. Osteoporosis
    c. With elbow instability, monopolar may provide better stability
    d. Tips
        i. Radial Head implant diameter and thickness important for a good outcome
        ii. Ostetome or sagittal saw at head/neck junction
        iii. Piece together radial head to ensure no fragments left in joint
        iv. Use excised radial head to determine implant size
    e. Final Check-No overstuffing!
        i. Radial head should articulate 2mm distal to tip of coronoid
        ii. Medial ulnohumeral joint should be parallel
        iii. Always check ROM