Shoulder disorders

❖ Rotator cuff muscles

1. Supraspinatus muscle: suprascapular nerve, arm abduction 0-15.
2. Infraspinatus muscle: suprascapular nerve, external rotation.
3. Subscapularis muscle: upper & lower supscapular nerve, internal rotation & adduction.
4. Teres minor muscle: axillary nerve, external rotation.

❖ Shoulder joint ligaments

1. Coracohumeral ligament
2. Transverse humeral ligament
3. Superior, middle & inferior glenohumeral ligaments.

❖ Shoulder dislocation

- Anterior dislocation (95%), posterior dislocation (5%) & inferior dislocation.

- Anterior dislocation: subcoracoid (anterior inferior, most common), subglenoid, supclavicular.

- The arm is adducted, elbow flexed, inability to externally rotate the shoulder joint.

- Positive Apprehension test.

- Axillary, radial, ulnar, median & musculocutaneous nerves must be examined.

- Compare radial pulses, ulnar pulse, capillary refill.

- X-ray before reduction must be done to r/o fractures.

- Management: analgesia > sedation> reduction > X-ray > immobilization >rehabilitation.

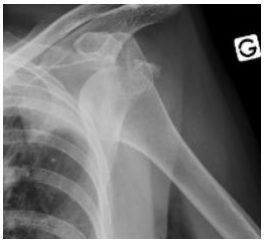
- Types of reduction:

  - Traction-Counter traction method >> anterior dislocation.
  - Closed reduction Traction counter traction >> posterior dislocation.
  - Operative if the above fails, recurrence, +fracture or large defect (Reverse Hill Sachs).

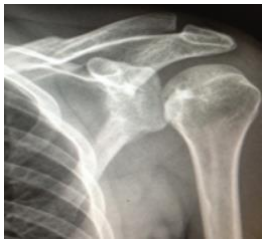
- Early complications:

Anterior dislocation	Posterior dislocation
Rotator up cuff tear (old age)	Rotator cuff tear (old age)
GT fracture (middle age)	GT & LT fractures (middle age)
BankArt lesion (young age) >100% risk for recurrence	
Neurovascular lesion (like axillary nerve)	Neurovascular lesion (like axillary nerve)
Hill Sachs lesion	Reverse Hill Sachs

- Late complications: necrosis of the humeral head, recurrence, heterotropic calcification.

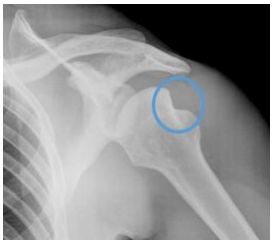


Anterior dislocation



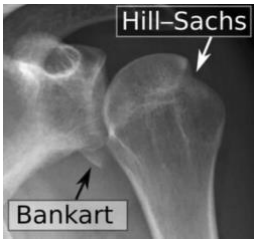
Posterior dislocation

"Light bulb"



Hill-Sachs

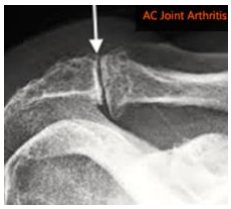
"Depression fracture"



Bankart lesion

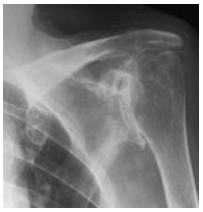
"Avulsion of anterior & inferor parts of the glenoid labraum"

❖ **AC joint Osteoarthritis**



- Degenerative progressive joint disease. Women > Men
- **The most common asymptomatic joint to be affected in OA.**
- Risk factors: old age, previous AC separation & repetitive overhead activities.
- Positive scarf test & crepitation.
- On X-ray: narrowed joint space, subchondral sclerosis, osteophytes, subchondral cysts.
- Management:
  - Non-operative:
  - Operative: arthroscopic or open distal clavicle resection (Mumford procedure).

❖ **Glenohumeral Joint Osteaoarthritis**



- Degenerative progressive joint disease
- Risk factors: old age (>50), throwing athletes, RA, post-traumatic, family history.
- Pain, tenderness, crepitation, muscle weakness or atrophy, limited range of motion, flattening of the anterior shoulder contour.
- Management:
  - No-operative: physiotherapy, activity modification, analgesics.
  - Operative if : non-operative fails, progressive pain, decrease ROM, affecting daily activities.

❖ **Frozen shoulder/adhesive capsulitis**

- Shoulder capsule becomes inflamed, stiff & with abnormal bands of tissue, called adhesions..
- It is **IDIOPATHIC** pathology.
- RF: DM, thyroid disease, scleroderma, dupuytren, repetitive shoulder injuries.
- Pain is constant, increase at night & with cold weather & restricted shoulder movement.
- First movement to be lost if external rotation.
- Women > men. The recovery is very low.
- Management: conservative. For prevention keep the shoulder joint fully moving.

❖ Impingement Syndrome

- Compression of the rotator cuff against the anterior structure of coracoacromial arch, anterior 1/3 of the acromion, coraco-acromial ligament & AC joint.
- The most common affected tendon is **supraspinatus** tendon.
- Stages: (1) edema & hemorrhage (patient <25), (2) fibrosis and tendinitis (patient 25-40), (3) RC tear, biceps tendon rupture, bony changes (patient >40).
-CF: pain exacerbate with overhead activity and at night, weakness with active abduction (60-120), limited internal rotation.
- Positive impingement tests: Neer's test, Hawkins-Kennedy test.
- Findings on X-ray: traction osteophytes, calcification of coracoacromial ligament, cystic changes in greater tuberosity, hooked acromion.
- First line in management: conservative (activity modification, NSAID 2-3 weeks, physiotherapy, stretching and strengthening, manual therapy 6weeks.

❖ Calcific tenosynovitis

- Rare inflammatory condition caused by calcium hydroxyapatite crystal deposition in the tendon sheath or synovial lining of a tendon.
- Common site: shoulder (supraspinatus tendon most common).
- Sudden onset of localized pain and swelling.
- X-ray: shows calcific deposits near tendons
- Septic arthritis is one of the differential diagnosis of it.
- Treatment: conservative or corticosteroid injection.

❖ Rotator cuff tear
Study it :)

Done by Shahed Atiyat