Shoulder pain

References:
1. Mr Michael Kurer orthopaedic consultant, BMI Healthcare, Youtube.
2. Mr Mark Proctor, orthopaedic consultant, BMI Healthcare, Youtube.
3. Shoulder pain lecture, PULSE conference Oct 2024

Acute calcific tendonitis

- Unknown cause.
- Sudden onset.
- Very painful.
- Xray.
- Surgical removal.
- if fails
- Analgesia.
- Physiotherapy.
- Steroid injection (subacromial).

Glenohumeral arthritis

- Unlikely if < 40y.
- Gradual onset.
- Pain in axila or anterior.
- Reduced ext. rotation.
- Xray AP and axillary lateral.
- Conservative.
- If fails refer ortho.

If joint issue then all movements will be reduced i.e. both active and passive.
If only active movements reduced = rotator cuff issue. the ball and socket is fine.

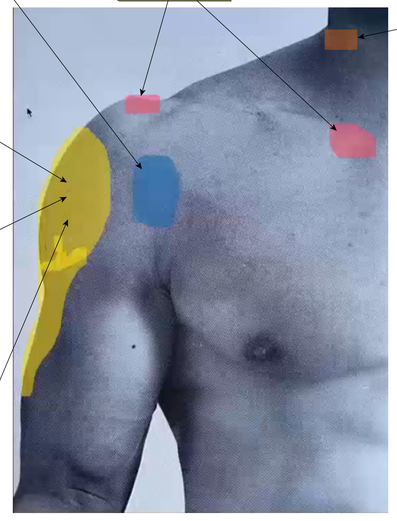
Ball and socket:
arthritis in older i.e. > 60y.
OR
capsule thick, scared, inflammed and ball and socket underneath is ok = frozen shoulder 40-65y. reduced passive external rotation.

Acromioclavicular/ sternoclavicular joint arthritis

- Often incidental xray finding.
- Normal from > 40y.
- Pain at ACJ.
- Can be spontaneous or traumatic.
- Common if weight training.
- Scarf test.
- High painful arc.
- Forced adduction in extention.
- Xray.
- Spontaneous:
- Physiotherapy.
- Topical NSAIDs (as so superficial)
- Steroid injection.
- Rarely perform arthroscopic excision.
- Traumatic AC dislocation:
- Conservative.
- Takes 3/12 to settle.
- Almost never requires surgery.
- Difficult to get needle into the actual joint so consider referring to an expert or USS guided.

ACJ issue:
= usually degenerative changes, localised tenderdess at ACJ, cross arm test, high arm pain as you squash the joint,

Distal Clavicle Osteolysis



Rotator cuff impingement / bursitis

- Pain radiating down to thumb.
- Painful arc 60-120o but can be variable.
- Weakness if associated cuff tear.
- Neer's test.
- Hawkins test.
- Jobe's empty can test
- NSAIDs.
- Physiotherapy.
- Steroid injection (subacromial).
- Surgical decompression of impingement.
- Do USS if < 65y to ensure don't miss full thickness rotator cuff rupture.
- if fails after 6/12 consider
- Only one inj.
- Repeated inj. cause tendon damage.
- > 40y.
- Gradual onset.

cannot diagnose using
- USS.

Rotator cuff tear

- Mostly degenerative.
- Can be traumatic.
- Traction injury
- Painful arc 60-120o.
- Weakness.
- Stiffness.
- Clicking.
- Pseudoparalysis.
- Infraspinatus (external rotation).
- Supraspinatus (Napolean belly press, bear hug)
- External rotation lag sign (they cannot sustain external rotation and the arm flops back medially).
- Hornblower sign (high 5 position and see if they can hold position or if they can resist you gently pushing downwards).
- Xray advised by one consultant in webinar.
- If weak infraspinatus or supraspinatus will likely need ortho intervention if young and active hence, arrange USS.
- Never MRI, leave that to ortho.
- Beaware, it's normal to have tears as you age.
- Grey hair = Cuff tear.
- Study of 96 asymptomatic shoulders, who had MRI.
PT partial thickness, FT Full thickness
>60y = 54% (26% PT, 28% FT)
40-60y = 28% (29% PT, 4% FT)
19-39y = 4% (4% PT, 0% FT)
- Only one inj, although one consultant said can do max two.
- Repeated inj, cause tendon damage.
- Analgesia.
- Steroid injection (subacromial).
- Physiotherapy for 6/12.
- if fails after 6/12
- Refer to surgeon.
- Analgesia.
- Steroid injection (subacromial).
- Physiotherapy for 6/52.
- Refer young active pt refer straightaway i.e. traumatic tear.
- if fails after 3-6/12
- Refer to surgeon.
- Surgical repair within 4-6/12 of rotator cuff, if young and active or aging well up to 70y old.
- If > 70y, could possibly do reversed total shoulder replacement, as the quality of the cuff is too poor for any repair.
- Only one inj, although one consultant said can do max two.
- Repeated inj, cause tendon damage.

partial thickness tear
full thickness tear

Rotator cuff:
Either impingement which catches them with pain. painful arc 60-120 degrees. less space for the tendon ehnce pain.
OR
rotator cuff tear.
Passive movements ok but active movements are reduced.

The joint is healthy if you can move it passively so its possibly ortator cuff impingment or tear.

Refer if > 6 months.

Acute rotator cuff tear = refer urgently cf chronic tear. much improved healing.

Frozen shoulder (capsulitis)

- Idiopathic.
- Common in DM and hypothyroidism.
- Sometimes after trauma.
- Inflammed joint capsule.
- 45-55y age (>40y if diabetic).
- Pain at night.
- Pain reaching out for something.
- Stiffness.
- False trigger e.g. lifting suitcase.
- Global loss of passive movements.
- Strong in power within their range.
- It was evolving anyway.
- They are looking back and falsely linking it with an event, which simply agravated what was already there.
- As if someone has sewn the armpit area of their jacket, making it really tight, and they can only get so far in most movements.
- If you test power within their range of movement they are actually quite strong.
- Burns it self out after 1.5-3 yrs.
- Oral analgesia.
- Steroid injection into gleno-humeral joint during the painful phase.
- Most pt's get used to ↓ ROM as long as pain is ↓.
- Then send for physio.
- Non-surgical.
- if still too painful after 3/12 consider
- Surgical.
- Rarely performed.
- Manipulation under anaesthetic
OR
- Capsular release.
- Clinical Dx.
- Coracoid pain test.
- HbA1c.
- Xray.
- not recommended
- USS.
- MRI.
- OA and frozen shoulder, both have ↓ active and passive movements.
- Only way to differeniate is to do an xray.
- Frozen shoulder = bones ok.
- OA = degeneratie changes.
- Press on the coracoid process, the AC joint and the anterolateral subacromial area.

- If pain here is more than 3 compared to the AC joint and the anterolateral subacromial area (on a scale of 1-10) = +ve i.e. adhesive capsulitis

Reference
http://www.ncbi.nlm.nih.gov/pubmed/19418052

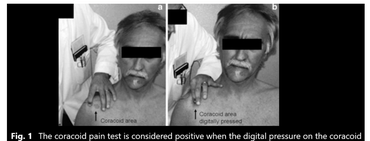


Fig. 1 The coracoid pain test is considered positive when the digital pressure on the coracoid area (*black arrow*, **b**) evocates a more intensive pain with respect to other shoulder area (**a**)

Ball and socket:
arthritis in older i.e. > 60y.
OR
capsule thick, scared, inflammed and ball and socket underneath is ok = frozen shoulder 40-65y. reduced passive external rotation.

If joint issue then all movements will be reduced i.e. both active and passive.
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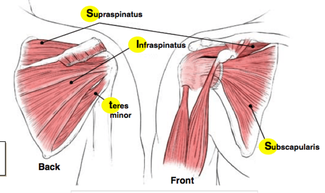
LACK PASSIVE EXTERNAL ROTATION
- Frozen shoulder.
- Glenohumeral OA.
- Large cuff tear.
- Posterior dislocation.

Rotator Cuff Muscles



S Supraspinatus (abduction)
I Infraspinatus (external rotation)
t teres minor (external rotation)
S Subscapularis (internal rotation)

Cervical pathology

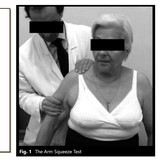
- Pain in neck, scapula and arm.
- Constant.
- Down to hand.
- Neurological symptoms.
- Not worse lying on shoulder.
- Never medial to shoulder 'bra strap' line.
- Worse with activity.
- Usually no tingling.
- Worse lying on it at night.
NECK
Vs
SHOULDER
- Arm squeeze test.
- MRI.
- Analgesia.
- Reassurance.
- Shoulder pain may be coming from the neck pathology i.e. cervical nerve root compression.

- Arm squeeze test
- Squeeze the middle third of the upper arm.

- If pain = +ve i.e. cervical nerve root compression is causing the shoulder pain, not a pathology in the shoulder it self, although there's no law stating a pt can't have two pathologies at the same time.

Sensitivity = 96%
Specificity = 91% - 100%

Reference
http://www.ncbi.nlm.nih.gov/pubmed/23604976



Winging of scapula

- Long thoracic nerve palsy.
- Other causes ???

MRI

- indications
- Pain of unkown origin.
- Sizing of rotator cuff tears to determine if repairable.
- Trauma with normal x-ray (or USS).
- First time dislocate.

USS

useful reports
- No tear.
- Full thickness tear.
- Normal or ruptured biceps tendon.
- Significant focal deposit of calcium.

useless reports
- Partial thickness tear (everyone > 40 y has this).
- Bursitis.
- Impingement.
- ACJ arthritis (everyone > 40 y has this).
- Degenerative changes.
- Calcinosis (everyone > 40 y has this).

16y = 85% recurrence rate after 1st dislocation.
21y = 69% recurrence rate after 1st dislocation.
30y = 40% recurrence rate after 1st dislocation.

Dislocation

- Apprehension test.
- Gentley move the arm behind the bent elbow.
- If cant tolerate and feel shoulder about to dislocate = +ve.
- Physiotherapy for most.
- Avoid positions that can cause dislocation.
- Live with it.
if serious sportsperson
- Keyhole repair of torn soft tissue structures.

Long head biceps tendon rupture

- Pop-eye sign.
- If cuff intact, reassure.
- Nil else needed.
- Appearance doesn't count as criteria for surgery, regardless of how it looks in the gym.