Causes of Shoulder Pain

- Myofascial pain syndrome
- Cx Dysfunction with referred pain
- Cx Radiculopathy
- Supraspinatus Tendinosis
- Adhesive Capsulitis
- Subacromial impingement syndrome
- Supraspinatus tendon tear/rupture
- Acute Bursitis
- Calcific Tendinitis
- GH Arthrosis
- TOS
- AC joint osteoarthrosis
- Bicep Tendinitis
- Visceral Referred Pain

Serious Disorders

- Malignancy
- Septic Infection
- Carcinoma of the lung
- MI

Pitfalls

- Referred sources of shoulder pain: Cx spondylosis, Cx arthritis, Cx disc disease, MI, CRPS, Diaphragmatic irritation, TOS, Gallbladder Disease
- PMR (>60 yo, bilateral, inflammatory shoulder girdle pain)
- Posterior dislocation of the shoulder joint
- Recurrent subluxation of shoulder joint
- AVN of humeral head
- Rotator cuff tear/degeneration

Referral

- Persisting night pain with shoulder joint stiffness
- Persisting supraspinatus teninitis - Rotator cuff tear/degeneration
- Confirmed/suspected shoulder dislocation
- Confirmed/suspected recurrent subluxation/AVN
- Children with shoulder instability

Hx

- Duration
- Onset - Night pain when leaning + Hx of trauma, >65 yo = rotator cuff tear
- Activity/mechanism at the time of onset - Overhead work = impingement syndrome (60-120 degrees)
- Activities that relieve/exacerbate
- Patient's age - **<30** = biomechanical/inflammatory (atraumatic instability, tendinosis and arthropathies)
>45 = Complete rotator cuff tears
- Past Hx of trauma/injury
- Past Hx of shoulder/arm surgery
- Treatment attempted - not getting better
- Other medical conditions (Diabetes, Thyroid disease, Coronary Artery disease, Alcohol abuse + use of corticosteroids)

Hx

Age	**<40yo:** Instability, rotator cuff tendinopathy **>40yo**: Rotator Cuff tears, Adhesive Capsulitis, GH OA
Diabetes/Thyroid disorders	Adhesive capsulitis
Hx of trauma	**<40 yo:** Shoulder Dislocation/subluxation **>40 yo:** rotator cuff tears
Loss of ROM	Adhesive Capsulitis, GH OA
Night Pain	Rotator Cuff Disorders, adhesive capsulitis
Paraesthesia and arm pain past elbow	Cx Spine
Pain Location	Anterior- Superior shoulder pain = AC joint Diffuse shoulder pain in deltoid = rotator cuff, adhesive capsulitis, GH OA
Pain with overhead activity	Impingement, rotator cuff disorders
Sports	Instability - overhead sports and collision sports
Weakness	Rotator Cuff disorders, GH OA

Further Questions

- Injury - even very minor when the pain started?
- Does the pain keep you up at night?
- Pain/Stiffness in neck?
- Pain/restriction when clipping/handling your bra or touching you shoulder blades (limited internal rotation)
- Trouble with combing hair? (External rotation)
- Pain on walking/some stressful activity?
- Pain worse when waking in the morning?
- Is it both sides? Do you have it in your hips too?
- Pain associated with sporting activity, housework, dressing?

Investigations

- ESR/CRP (PMR, Infection, Inflammatory)
- RF
- Serum Uric acid (Gout)
- X-ray
- Bone Scan
- US
- MRI

In children

- Septic Arthritis/osteomyelitis
- Swimmer's Shoulder

In Elderly

- PMR
- Supraspinatus Tear+ Persistent tendinitis
- Other Rotator Cuff Disorder
- Stiff Shoulder due to Adhesive Capsulitis
- OA of AC + GH joints
- Cx manipulable lesion with referred pain
- AVN of the humeral Head

Adhesive Capsulitis

Causes:

Diabetes

Thyroid Disease

Pulmonary disorders - TB, carcinoma

Cardiac Disease (MI)

Cerebrovascular accident

Shoulder Trauma

Recent surgery under anaesthetic

S&S

Onset usually >40 yo, mean age 60yo

F > M

Unilateral (But can be bilateral - rare)

Increasing pain and stiffness

S&S (cont)

3 Phases:

Painful phase: Insidious onset - shoulder pain + ache on movement in upper traps. Increasing during the night

Adhesive: After several months - pain becomes less severe, but pain during movement remains. Shoulder movement more restricted

Resolution: Pain less severe , restriction is worse. ROM slowly improved

- To differentiation between rotator cuff tenditis, Adhesive capsulitis has global restriction of passive movment , traps tenderness and early movement of scapula on abduction

Management

3 times a week (intensive) - No manipulation at initial stage

Rest

Pendular Exercises

NSAID advice - pharmacists

Cryotherapy

US, IF

Trigger points/bands of the shoulder girdle - upper traps

Spencer Technique

When acute episode is better, restore function - active exercises

Mobilisation/manipulation

PIR

Resisted strengthening exercises - isometric (press against wall) in pain free range to isotonic (moving shoulders with weights)

DOES NOT RECUR IN THE SAME SHOULDER WHEN BETTER

Spencer: 7 stages
1. GH Flexion + elbow extension
2. GH Extension + elbow flexion
3. Circumduction + traction
4. Circumduction + compression
5. Externally rotate + adduct (combing hair)
6. Internally rotate + abduction and extension (wiping bum)
7. Milking - scoop up

4-5 repetitions on every step. Slow movements

Subacromial Bursitis

- Caused by inflammation of supraspintus and/or other structures around the bursa

- Pain and swelling = impingement

- Pain on active + passive ROM of the shoulder

- Focal warmth, swelling

- Pt shrugs shoulder to initiate abduction

- Ultrasound

Management

- Cryotherapy
- Sling (48-72 hours) - decreases tension on supraspinatus tendon
- Mobility exercises
- NSAIDs
- Mobilisation/manipulation of GH, AC, SC and Scapular abnormalities

Calcific Tendinitis

- HADD = Hydroxyapatite Deposition Disease
- Caused by trauma/overuse
- Intense pain in the shoulder, radiates down upper arm - starts suddenly and rapidly becomes worse
- Pain worse with ANY shoulder movements and restricted in ALL directions
- Clinical features + X-ray (soft tissue calcifications)

Management

- Rest - may need a sling for several days
- Cryotherapy
- NSAIDs
- GP for corticosteroid injections
- Can improve within 4-5 days of conservative care

GH Dislocation

- Usually anterior
- Forced abduction + external rotation
- Severe pain, patient holds arm tightly against body
- Shoulder appears flattened laterally + prominent anteriorly. AC more prominent too
- X-rays in AP and Lateral scapula/axillary
- Posterior dislocation - axial loading of adducted, internally rotated arm. Seizure should be considered!

GH Instability

Types: Anterior inferior (common), Posterior, Multidirectional - congenital

- Trauma related - direct/overuse (overhead activities), intentional, atraumatic - congenital, bilateral, joint laxity

Hx: General shoulder pain, worse with activity/certain arm positions
Relieved by rest/heat
Hx of catching/locking with motion
Painful arc of motion (impingement)

Exam: Sulcus sign/redness
Trigger points + myospasm of rotator cuff
AROM/PROM shows repeatable clunk/apprehension with abduction + external rotation
+ve Load and shift
Anterior/posterior apprehension sign.

GH Instability (cont)

DDx: Labral Tear/GH OA
Biceps Tendinopathy
Rotator cuff tear
Shoulder Impingement
Subacromial Bursitis

Management: Correction of faulty movement patterns - strengthening of rotator cuffs + correction of muscle imbalances (PFROM then to mild resistance exercises), if not getting better, consider referral to GP for surgery

Impingement Syndrome

- Not a condition on it's own

- Caused by:
Subacromial Bone spurs/bursal hypertrophy
AC Joint arthrosis/bone spurs
Rotator cuff disease
Superior labral injury
GIRD
GH Instability
biceps tendinopathy
Scapular dyskinesis
Cx radiculopathy

- **Hx:** Dull, achy shoulder - worse with shoulder abduction , overhead activity/excessive use
Sudden onset of sharp pain in shoulder with tearing = rotator cuff tear

Exam: Pain on top of shoulder = AC joint arthritis
Pain over bicipital groove = bicipital tendonitis
Pain over lateral shoulder = supraspinatus tendinopathy
AROM = pain with shoulder abduction/flexion 8-120 degrees + shoulder hiking
PROM: WNL unless tendon is involved
RROM: Muscle weakness due to pain
SMR = WNL - rule out Cx radiculopathy/neurological
+ve impingement sign
+ve neer's sign
+ve Hawkins Kennedy
+ve Drops arm, Empty Can

DDx: Biceps tendonitis, rotator cuff injuries, Adhesive capsulitis, AC joint pathology, Glenoid Labral Tear, Subacromial Bursitis

Management: Education + reassurance , avoidance of aggravating activity, PRICE + NSAIDs, MF release, Manipulation of SC, AC, Cx,Tx, TENs, US
Rehab: Ice and rest shoulder after
PRFROM + Pendulum arm swings, stretching then PFAROM + mild resistance exercises

Labral Tear

Classifications