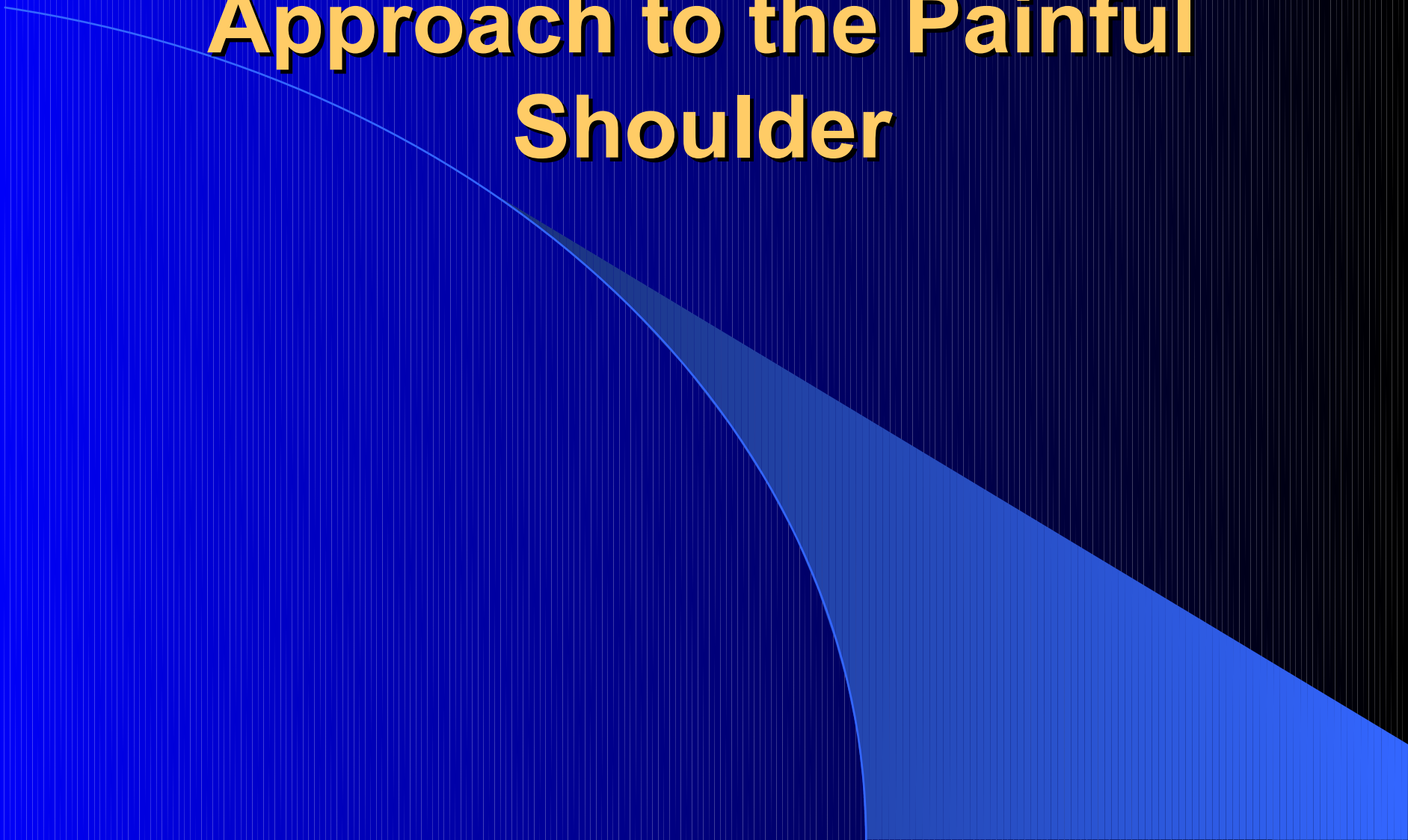


Diagnostic and Management Approach to the Painful Shoulder

A decorative graphic consisting of a blue curved shape that starts from the left edge and extends towards the bottom right corner of the slide.

Introduction

- What conditions causing shoulder pain commonly present in General Practice?
 - Subacromial impingement
 - Rotator cuff tears
 - AC joint pathology
 - Adhesive capsulitis
 - (Instability)

Introduction

- How do we discriminate between these conditions?
- History
 - Acute/gradual onset
 - Distribution of pain
 - Activities worsening the pain
 - Activity restrictions
 - Night pain
- Examination

Subacromial Impingement

- Impingement beneath coracoacromial arch
- Intrinsic
 - Cuff thickening/bursitis
- Extrinsic
 - Instability – young
 - Subacromial spurs – old
- Pain with activity above shoulder height (and at night)
- Painful arc of abduction (“hitch”)
- Positive impingement signs

Adhesive Capsulitis

- Capsule sticks to humeral head
- GLOBAL RESTRICTION ROM
- NIGHT PAIN
- Cause often unknown – but beware diabetes
- Painful 6/12
- Restrictive 6/12
- Resolution 6/12

AC Joint Pathology

- Pain with activity (esp overhead, or weight training)
- AC Jt tender
- Crepitus/clicking
- Deformity



Rotator Cuff Tear

- Requires force
- Supraspinatus > Infraspinatus > subscapularis
- Reduced function and night pain
- Painful arc (“hitch”)
- Drop test

Examination of the Painful Shoulder

- Observation
- Anterior
 - SCJ
 - Clavicle
 - ACJ
 - Shoulder height
- Posterior – wasting
 - Supraspinatus
 - Infraspinatus
- Abduction (180deg)
 - scapular winging
 - glenohumeral rhythm (2: 1)
 - hitch
- Forward flexion (180deg)
 - winging
 - rhythm
- External rotation
- Back scratch
- (IR in abduction)

Examination of the Painful Shoulder

- Palpation

- SC joint
- Clavicle
- AC joint
- Anterior joint
- Long head biceps
- Greater tuberosity
- Posterior joint

- Muscle Testing

- Supraspinatus – abduction
- Infraspinatus – external rotation
- LH biceps – forward flexion
- Subscapularis - lift off

Provocation Tests

- AC Joint Tests
 - Horizontal flexion and adduction
 - Resisted abduction in horizontal flexion
- Impingement Signs
 - Empty can
 - Hawkins
- Stability
 - Sulcus
 - AP glide
 - Apprehension and relocation
- Labrum
 - O'Brien's test

Is it Referred from the Cervical Spine?

- Median nerve
 - Thenar muscles
 - Index sensation
- Ulnar nerve
 - 1st dorsal interossei motor
 - 5th finger sensation
- Radial nerve
 - Finger extension
 - 1st dorsal web sensation



Is it Referred from the Cervical Spine?

- Where is the pain?
 - Hand over deltoid – think shoulder
 - Hand over traps – think neck
 - Radicular pain – think neck
- Examine
 - Cervical spine ROM
 - Spurlings test
- Neurology
 - C5 deltoid (S, M), biceps (R)
 - C6 thumb (S), biceps (M), BrRad (R)
 - C7 digit 3(S), triceps (M, R)
 - C8 digit 5(S), FDP/S (M)
 - T1 medial elbow (S), finger abduction (M)

Investigation of Shoulder Pain

- Local anaesthetic injection tests
- Plain XR
 - AP (IR and ER)
 - Trans-scapular
 - AC joint



Investigation of Shoulder Pain

- U/S scan
 - Cuff tears, tendinopathy, bursitis
 - Undercalls cuff pathology
 - Can inject at the same time



Investigation of Shoulder Pain

- Bone scan
 - Esp if referring for ACJ surgery
- CT arthrogram
 - Particularly useful for recurrent instability
- MRI
 - Cuff tears
- MRA
 - Labral pathology and instability

Treatment of Shoulder Pain

- Analgesia
- NSAID
- Activity modification
- Corticosteroid injection
- Physical therapy
- Surgery

Subacromial Impingement

- Pain with activity above shoulder height (and at night)
- Painful arc of abduction (“hitch”)
- Positive impingement signs
- Plain XR
- Ultrasound scan
- Local anaesthetic test
- Subacromial injection and rehabilitate
- Subacromial decompression

AC Joint Pathology

- Pain with activity (esp overhead, or weight training)
- Deformity
- Crepitus/clicking
- Provocation tests
- Plain x-rays
- Bone scan
- Activity modification
- NSAID
- CSI
- Surgery



Adhesive Capsulitis

- GLOBAL RESTRICTION ROM
- NIGHT PAIN
- Investigations often not required (glucose?)
- EDUCATION
 - Painful 6/12
 - Restrictive 6/12
 - Resolution 6/12
- Glenohumeral injection (or hydrodilatation)
- Avoid provocation (work within limits)

Rotator Cuff Tear

- Requires force
- Reduced function and night pain
- Painful arc (“hitch”)
- Drop test
- Plain XR and U/S
- Bilateral pathology common on U/S > 50y – history and examination important
- Small tear > 50y – CSI and rehab
- Large tear, or < 50y – ortho opinion

Subacromial Injection – Posterior Approach

- Prepare
 - 2ml LA
 - 10mg Kenacort
 - 23g 1.25in – slim female
 - 21g 1.5in larger females, males
- Mark just below postero-lateral corner of acromion
- Arm resting in lap
- Prep skin
- Aim at coracoid
- Follow the curve of the acromion
- Never inject against resistance
- Make good notes
 - No touch technique
 - Side effects warning

Take Home Messages

- Adhesive capsulitis – global restriction of ROM
- Impingement – painful arc, but rotation should be preserved
- Cuff pathology is common on U/S in middle age – treat the patient, not the scan (think about what YOU would want)
- Don't forget plain x-rays!