Conditions of the shoulder

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Conditions

- Rotator Cuff Impingement
 - Rotator cuff tendonitis
 - Supraspinatus tendonitis
 - Painful arc syndrome
- Rotator Cuff Tear
- Frozen Shoulder
- Arthritis of the Shoulder
- Instabilities of the Shoulder

Initial impressions

- How old is patient?
- How does the patient hold the shoulder?
- Move their neck and shoulder?
- Shake hands?
- Obvious medical problems?
- How does patient undress?
- Surgical scars?
- Motion while walking?

Shoulder pain

•LOCAL PAIN

•REFERRED PAIN (NB)

Painfull Arcs

- 120-170 AC
- 60-120 Impingement
- 60-170 AC + Impingement
- All Movement Frozen Shoulder
- No Pain

Painful arcs



Impingement

- Most frequent cause of chronic shoulder pain
- Adams (1852) proposed that the rubbing of the rotator cuff against the acromion cause cuff tears
- Neer(1972) examined 100 cadaver scapulae and promoted the antero-inferior acromioplasty
- In Neer's opinion 95% off all rotator cuff tears were caused by impingement (1988)

What is Impingement?

- Abutment of soft tissue between two bony or hard surfaces.
- Tenderized steak
- Impingement can cause SA/SD Bursitis+/Supraspinatus tendinitis+/Biceps tendinitis+/Rotator cuff tears



Impingement

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Symptoms

- Night pain
- Pain during activity
- Overuse





Impingement

• Signs



Clinical Dx

- Pain and/weakness with overhead activities
- Pain with ADL's dressing, washing back
- Pain WO badge area
- Subacromial crepitis
- Positive impingement signs
- Positive impingement test





Acromion

- Bigliani Type I,II,III shape (1986)
- Edelson & Taitz (1992) Cobra, square, intermediate shape
- Os Acromiale (7%-Grant 1951)
- Slope

AC Joint

- Osteophytes
- Malunited fractures
- Instability

Greater Tuberosity

- Malunion
- Nonunion
- Osteophyte
- Malposition humeral prostesis

Capsule

- Instability (Multidirectional)
- Tight (Posterior capsule/rotator interval)

CA Ligament

- Hypertrophy
- Amyloid

Subdeltoid (SA) Bursa

- Thickened Chronic Bursitis
- Rheumatiod nodule

Rotator Cuff

- Partial tear
- Full- thickness tear
- Chronic calcium deposit

Glenoid

Posterior Internal Impingement (Walsh 1992)

Functional Impingement

- Loss of control of normal glenohumeral movement
- The humeral head is unable to self-centre on the glenoid
- Humeral head move upward causing impingement of supraspinatus against the subacromial arch

Dependent on Dynamic Stabilizers



- Superficial muscles
- Muscles of the Rotator Cuff
- Biceps Tendon

Muscle Balance with Abduction





In the absence of humeral head depressors, Subscapularis and Infraspinatus the humeral head abuts against the acromion. Deltoid overpowers the rotator cuff muscles during elevation causing impingement.

Treatment

Decreasing Inflammation

- NSAID
- Subacromial steroid injections
- Soft tissue balance
 - Posterior capsular stretching
 - Strengthen internal rotation
 - Strengthen external rotation

Treatment

- Strengthening Scapula Stabilizers
- Strengthening Humeral Head Depressors
 - Isometric external rotation exercise +Tummy presses
 - Isotonic exercise









Surgical Rx

- Arthroscopic Decompression
- Open decompression

Throwing Athletes

- Multiple elements of shoulder restraint system involved including the kinetic chain
- Commonly Chronic Overuse, Faulty Mechanics or Both
- Acute Injuries
- Same Motion in Variety Overhead Sport
- Baseball, Racquet sports, Swimming
- Physical therapy and rehabilitation

"SICK" Scapula Syndrome

- Scapular malposition
- Inferior medial border prominence
- Coracoid pain
- Dyskinesis of scapular movement

Malposition Scapula



Malposition Scapula





Rehabilitation

- Postero-inferior capsular stretches
- Pectoralis minor stretches

Scapula stabilizer strengthening

- Protraction
- Retraction
- Depression
- Elevation
- Rotation
Scapula stabilization

- Close chain to regain scapular control
- Add open chain without weights
- Add open chain with weights

Gleno-humeral Internal Rotation Deficit (GIRD)



Posterior capsule stretching





Superior Labrum Ant Post







CONCLUSION

- Non-operative treatment of rotator cuff impingement is very effective.
- A strict rehabilitation program should be followed.
- Operative treatment should not be considered before six months of conservative treatment.

Rotator Cuff Tears

- Impingement
- Chronic degeneration of the Rotator Cuff
- Trauma



Rotator Cuff Tears

- Impingement
- Chronic degeneration of the Rotator Cuff
- Partial tears
- Full Thickness tears
- End Stage Cuff Tear Arthropathy

Rotator cuff arthropathy





Rotator cuff tear



Rotator cuff tear

- Symptoms
 - Pain and weakness
- Signs
 - Atrophy Supra + -Infraspinatus
 - Weakness of external rotation (Infraspinatus)
 - + Jobe test (Supraspinatus)
 - +Lift off (Subscapularis)







Jobe test







Lift off sign





Treatment

- Operative repair
- Open
- Arthroscopic

Stiff Shoulder

- Osteo artritis
- Frozen Shoulder
- Surgery
- Trauma (Missed Post Dislocation)
- Sepsis

Frozen Shoulder

- No history of serious trauma
- History of Diabetes, Hypo-/Hyperthyroiedism
- Progressive pain and stiffness
- Restriction Glenohumeral ROM in all directions
- X rays normal

Treatment

- Prevention
- Non-operative
 - Local modalities: heat, cold, ultrasound
 - Stretching exercises
 - If ROM improves- strengthening exercises
 - Analgesia, NSAID's
 - Manipulation

Arthritis of the Shoulder

- Night pain
- Movements restricted and painful
- Decrease range of movement
- Crepitus on movement
- Typical X ray changes



Arthritis of the Shoulder : Treatment

- Rest
- Painkillers
- NSAID
- Muscle strengthening
- Shoulder replacement





Hyperlaxicity

Hyperlaxicity is not the same as instability

Chronic Instability

- Uni or multidirectional
- Habitual versus post traumatic dislocator

Traumatic unidirectional Instability

- History of dislocation
- Apprehension test positive
- With or without laxicity





Sulcus sign Hyperlaxicity



Anterior shoulder dislocation





Shoulder X rays



Shoulder X rays


Shoulder X rays



Shoulder X rays



Normal labrum



Labrum repair



Calcific Tendinitis

- 2-20% asymptomatic calcifications
- 30-50 yr
- Female > male
- Idiopathic

Treatment

- Ice packs
- Infra red heat, Ultrasound
- Maintain mobility
- Local anaesthetic, steroid infiltration
- Needling, arthroscopic/ultrasound
- Arthroscopic debridement
- Surgery
 – deltoid split with debridement of tendon (Rare)

Symptoms A C Joint

•COMMON SYMPTOMS -PAIN WITH WEIGHT-BEARING -LYING ON SHOULDER

•PAIN LOCALIZATION -ANTERIOR -OVER AC-JOINT

SWELLING



LOCAL TENDERNESS



ELEVATION 160+



CROSS-BODY ADDUCTION



X-RAY



•AC Artritis

•COMMON CLINICAL FINDINGS -FORCED CROSS-BODY SIGN -ELEVATION 120-160+ -LOCAL TENDERNESS -JOBE'S SIGN

•NO TEST 100% ACCURATE

LOCAL INFILTRATION VERY HELPFUL

A C Joint Treatment

- Painkillers
- NSAID
- Local infiltration
- Excision distal clavicle







THANK YOU