

ROTATOR CUFF IMPINGEMENT



THYS DE BEER

One of the major causes of
shoulder pain



DEFINITION:

- The R.C. impacted between greater tuberosity and acromion, coraco-acromial ligament and AC-joint
- Can be repetitive or acute traumatic impaction

CLASSIFICATION:

OUTLET IMPINGEMENT

- Shape of the Acromion
- Slope of the acromion
- Prominent AC-joint

NON OUTLET IMPINGEMENT

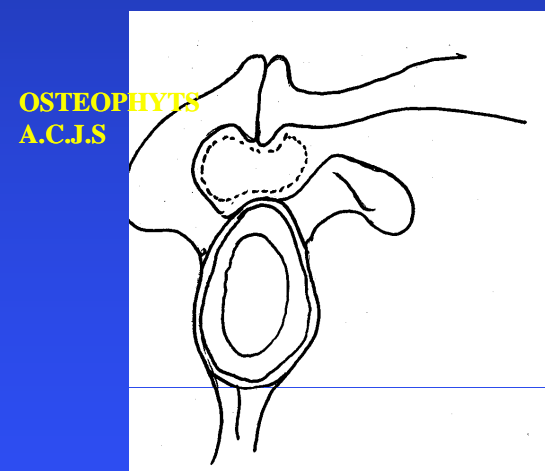
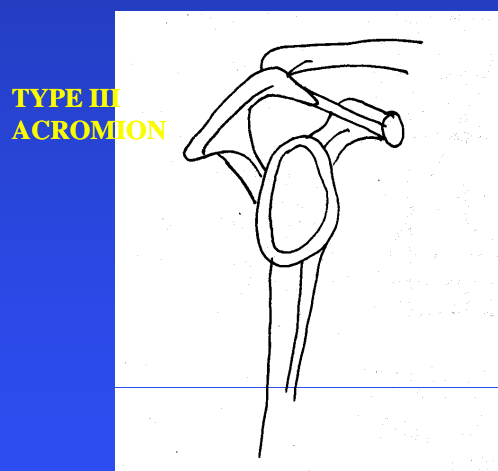
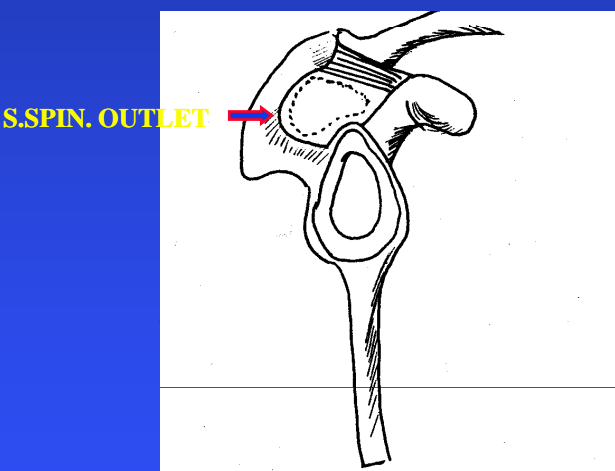
- Prominent greater tuberosity
- Loss of gleno-humeral fulcrum
- Loss of suspensory mechanism
- Thickened bursa or cuff

DYNAMIC IMPINGEMENT

- Instability glenohumeral joint,
especially SLAP lesions
- Disturbed scapulo-thoracic rhythm

OUTLET IMPINGEMENT

Narrowing of the supra spinatus outlet



Impingement - any prominent
part of outlet

A.C.Joint -inf. aspect

Ant. Acromion

Lat. Acromion

Shape of acromion

Type I, II and III

X-rays



I



II

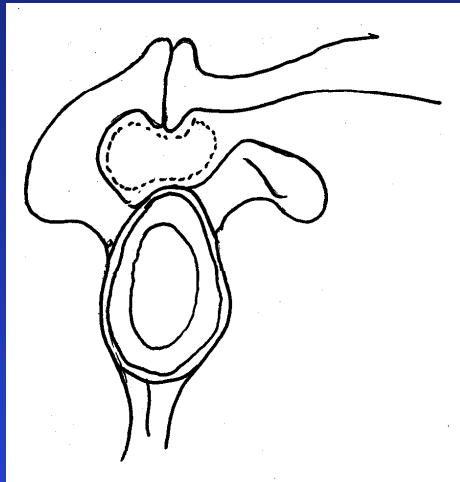


III

Slope of acromion



Prominence of AC-joint



STAGES OF IMPINGEMENT

STAGE 1:

- Oedema + haemorrhage sub-acromial space
- Typical <25yrs
- Reversible –

treat conservatively

STAGE II

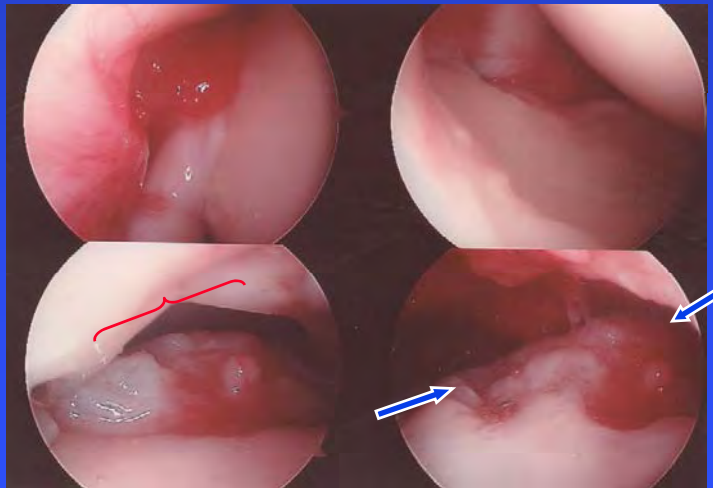
- Repeated mechanical insult
- Fibrosis, thickening sub-acromial bursa and tendonitis of R.C.
- 25 – 40 years
- Reversible and treatment – mostly conservatively

STAGE III:

- Bony spurs partial / complete tears, biceps pathology
- Treat - arthroscopic acromioplasty and AC-J excision

STAGE IV

- Full tear:
Symptomatic and not respond to conservative treatment - **surgery** indicated



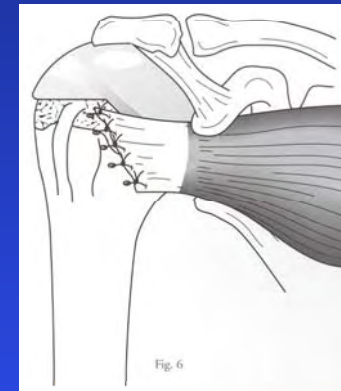
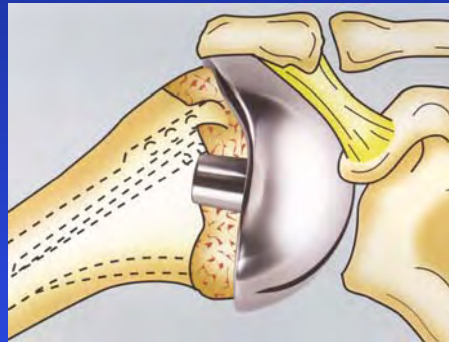
R/C REPAIR

- Excise A/C joint- if pathological
- Acromioplasty
- Rotator cuff repair, including repair of the long head of biceps and subscapularis if indicated

STAGE V

Cuff tear arthropathy

CTA Head



Delta prosthesis



TREATMENT

- Rest + N.S.A.I.
- Remove cause:
 - Stretch
 - Muscle balance – strength head depresses
 - Scapulo – thoracic control
- Not respond - steroid injection sub acromial bursa
- Surgery – no response to above

Advantages of the arthroscopic technique

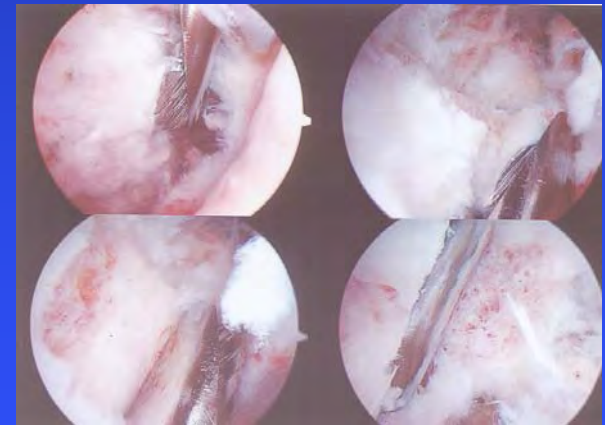
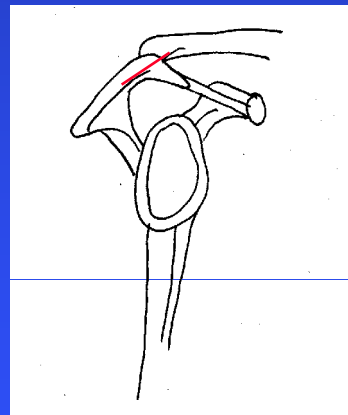
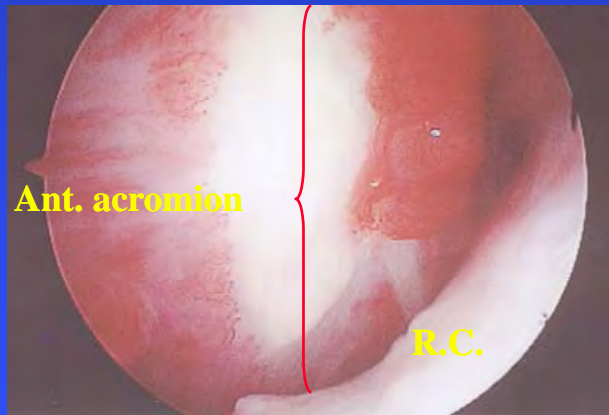
1. Arthroscopy – exclude intra articular pathology – no acromio. without arthros.
2. If signs of impingement – precision acromioplasty done
3. Rotator cuff evaluated
4. Minimal damage to deltoid – quicker rehabilitation
5. Cosmesis



TECHNIQUE

Arthroscopic acromioplasty

Remove only offending bony protuberances



A.C.-JOINT EXCISION

Arthroscopic AC-joint excision

