

MRI SHOULDER WHAT TO SEE

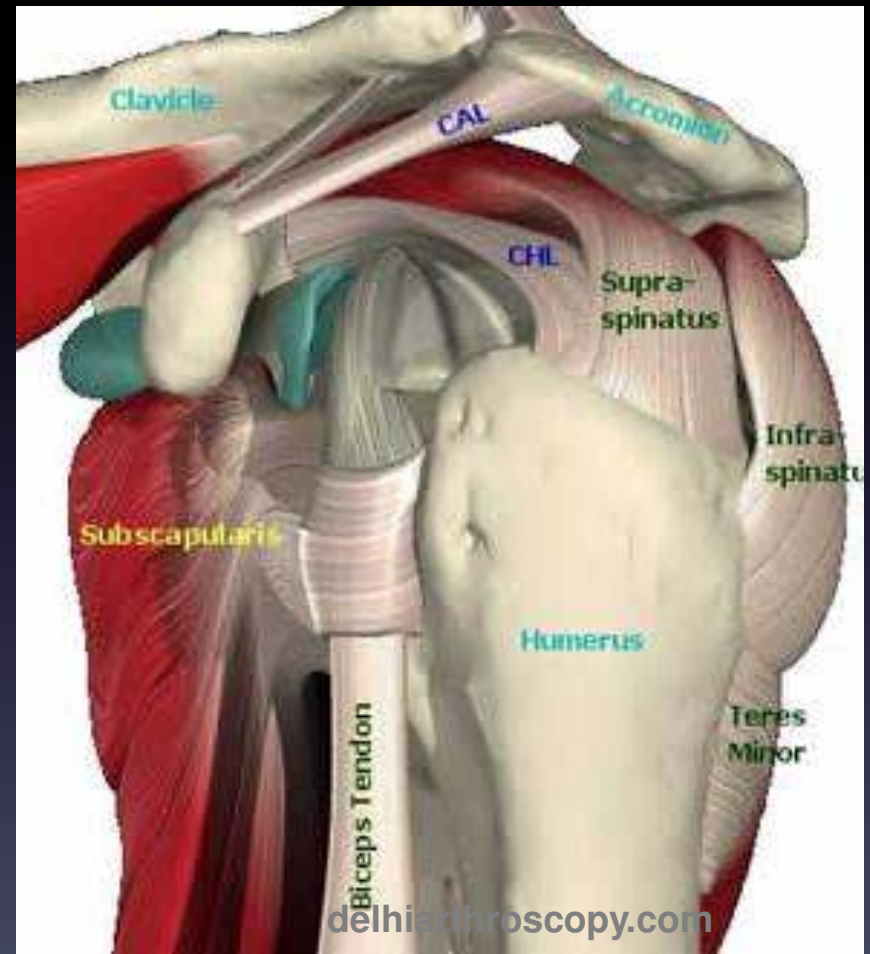
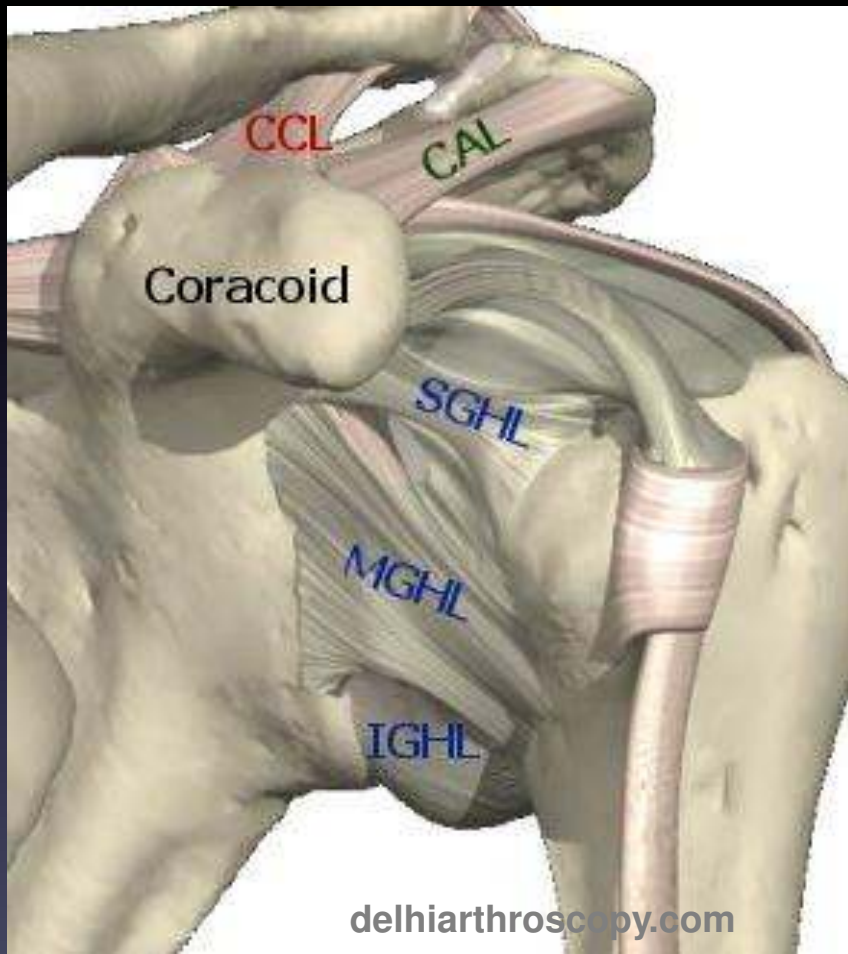
DR SHEKHAR SRIVASTAV

Sr. Consultant- Knee & Shoulder Arthroscopy

Sant Parmanand Hospital

delhiarthroscopy.com

Normal Anatomy

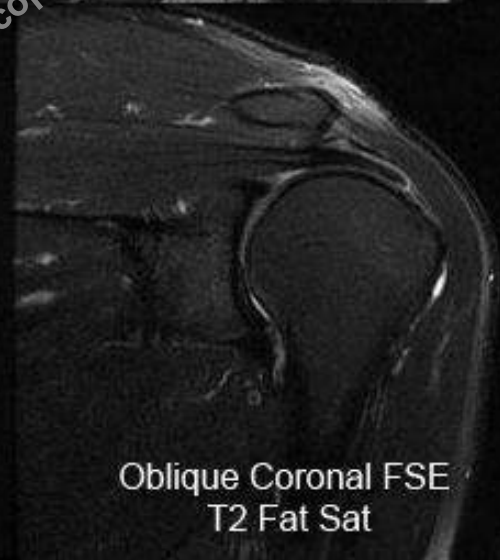
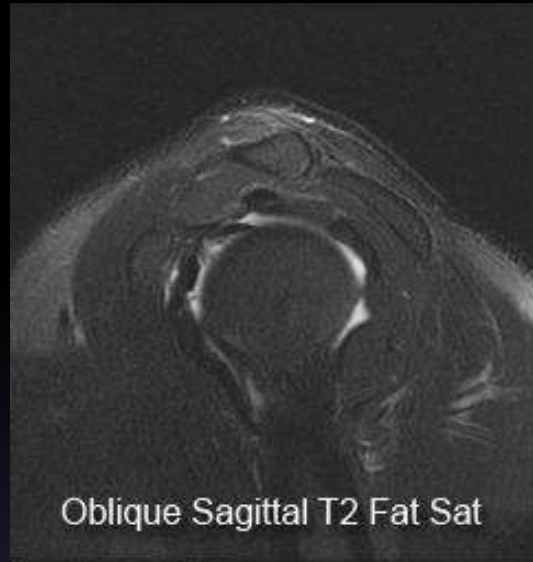


Normal Shoulder MRI

Coronal Oblique

Sagittal Oblique

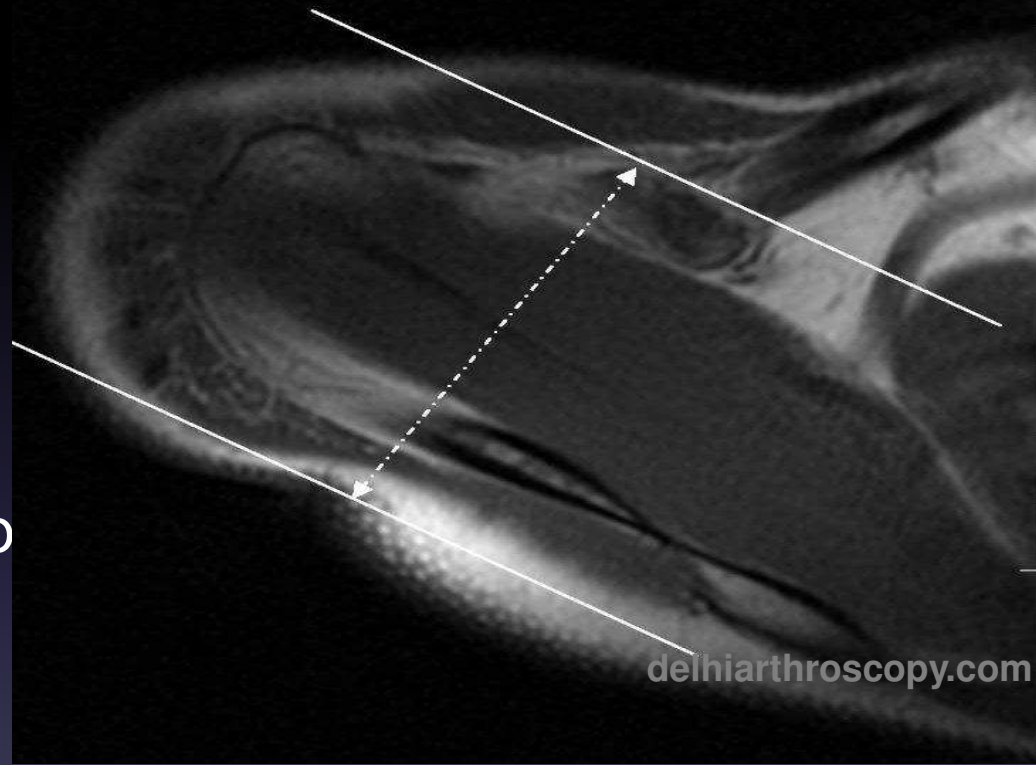
Axial Cuts



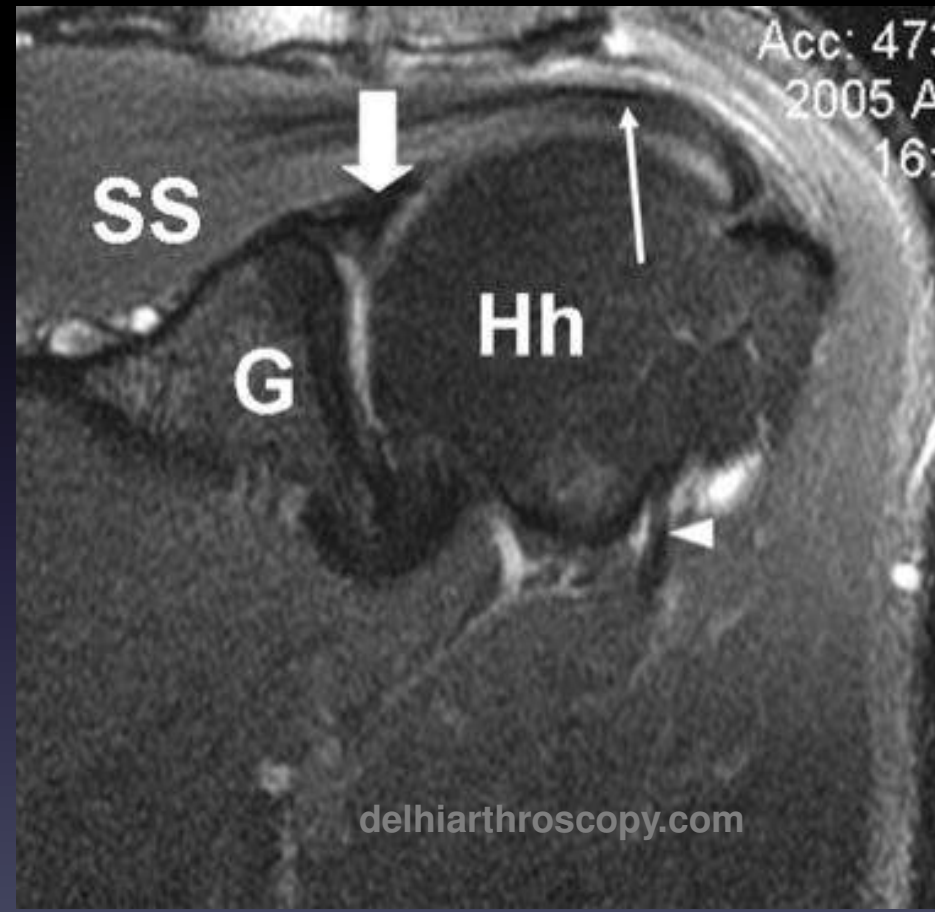
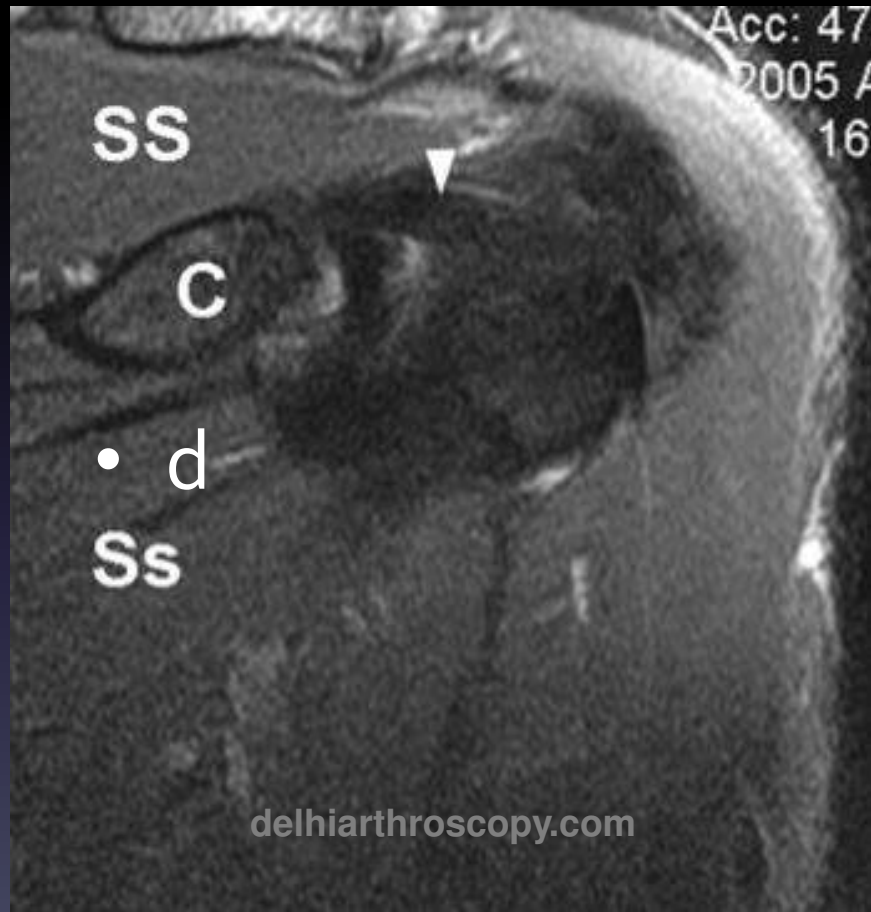
Normal Coronal Oblique

Parallel to plane of
Supraspinatus

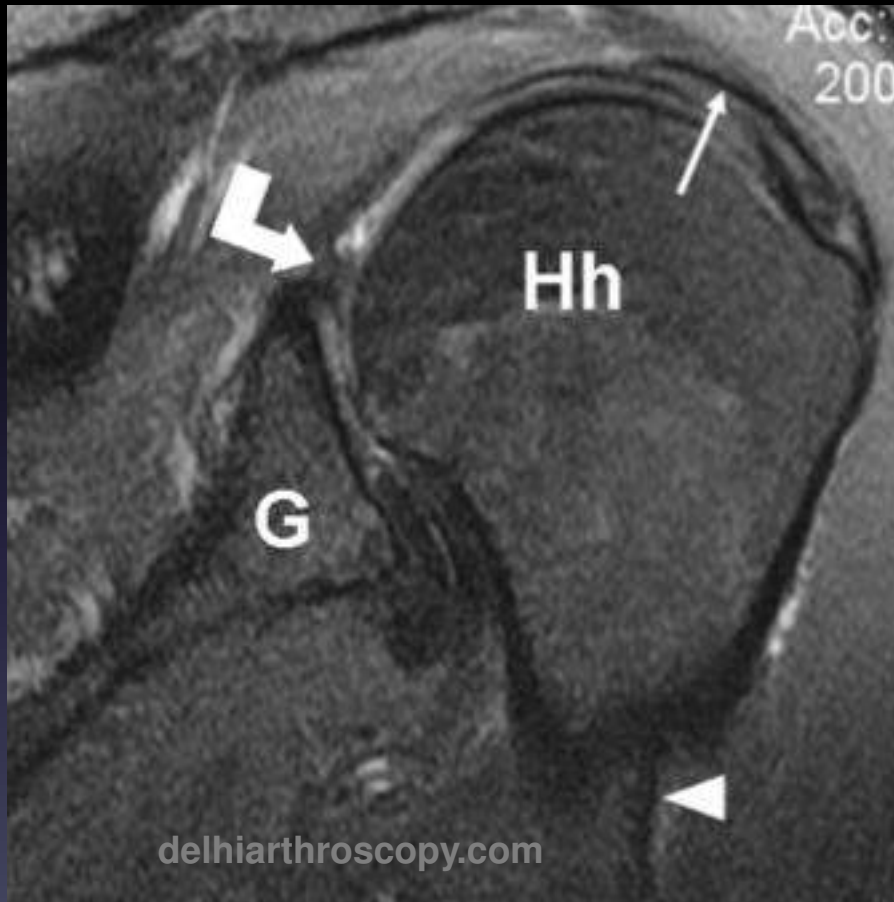
- Supraspinatus
- A-C Joint
- Sub-acromial & Sub-Delto
bursa
- Labrum- Sup & Inf
- Biceps Tendon



Normal Coronal Oblique



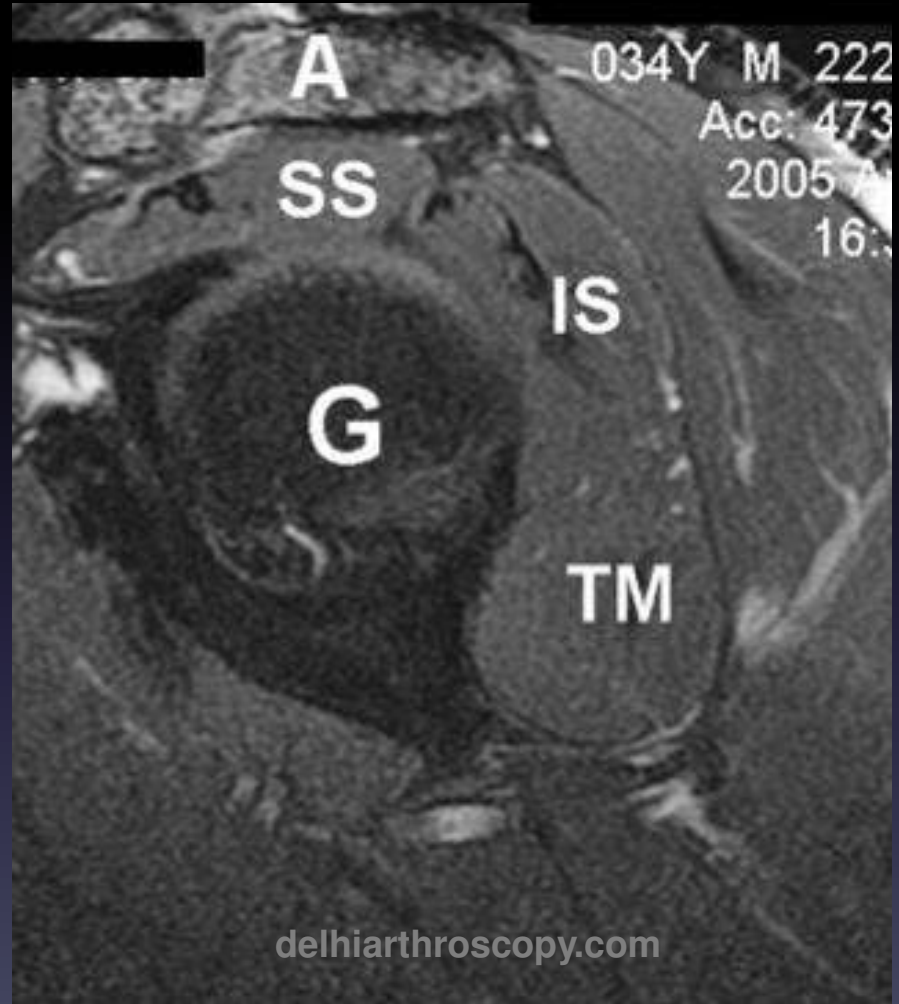
Normal Coronal Oblique



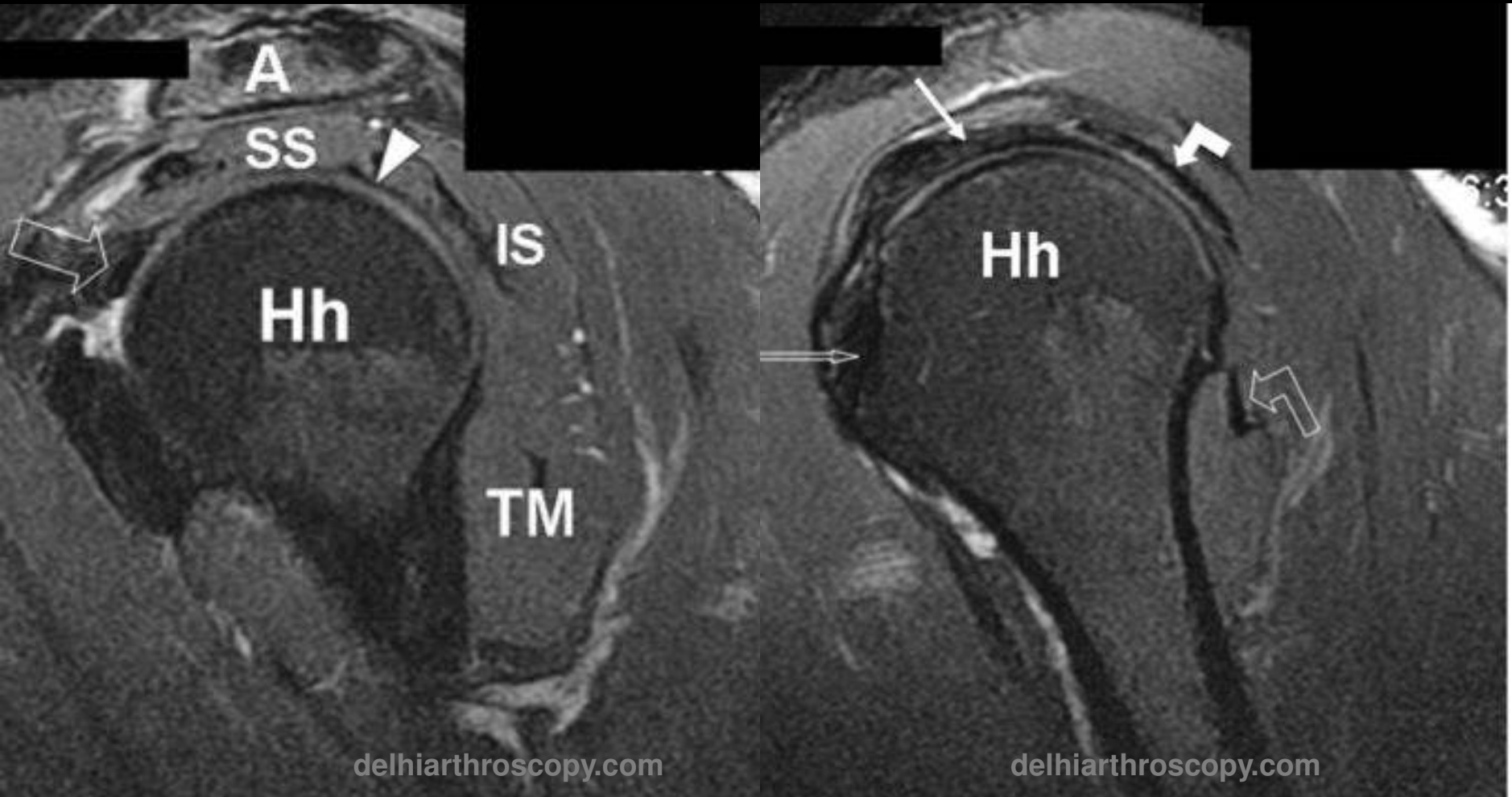
Normal Sagittal Oblique

Perpendicular to the
plane of Supraspinatus

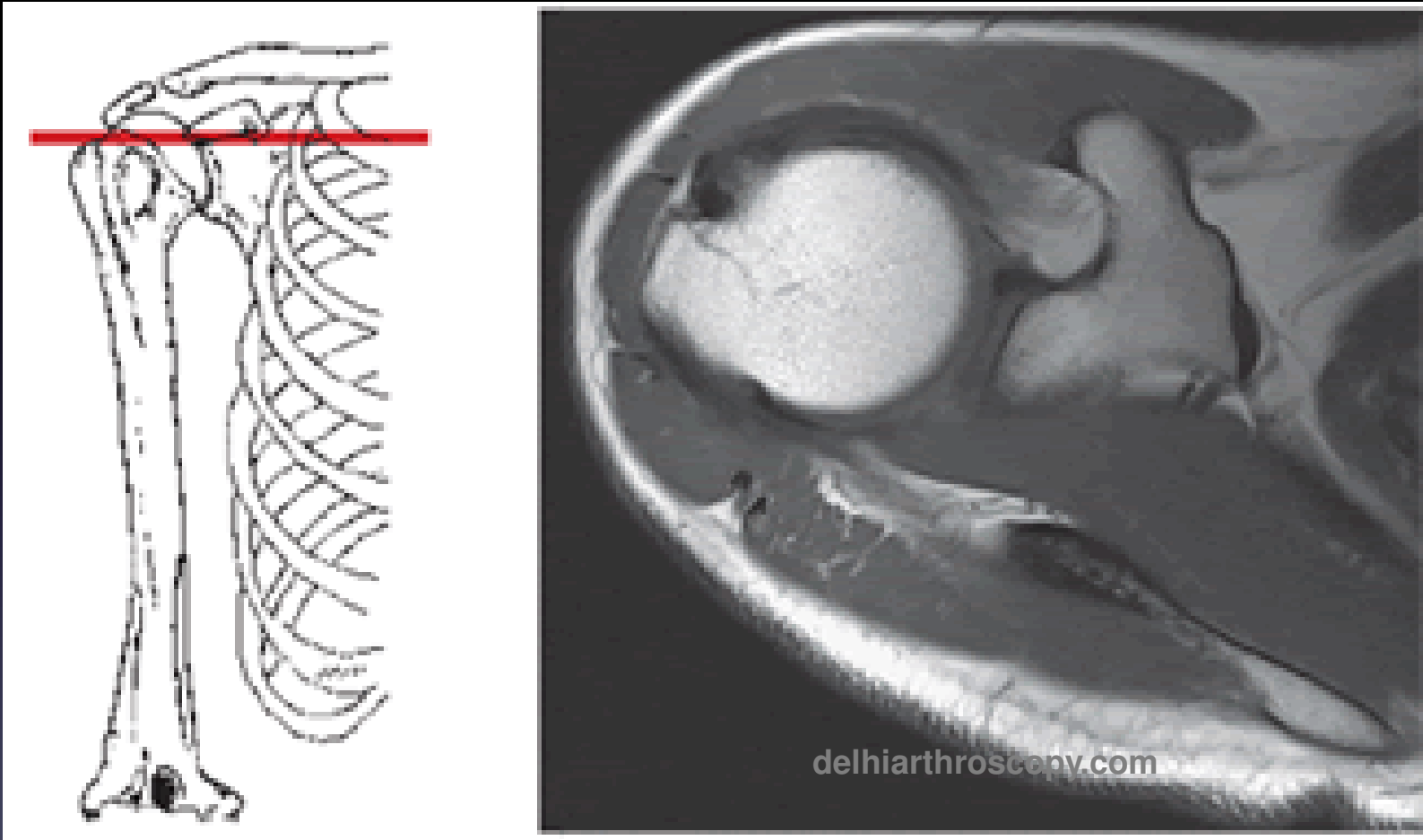
- Medial to Lateral
- Coraco-acromial arch
- Rotator cuff
- Shape of Acromion



Normal Sagittal Oblique



Normal Axial Cuts

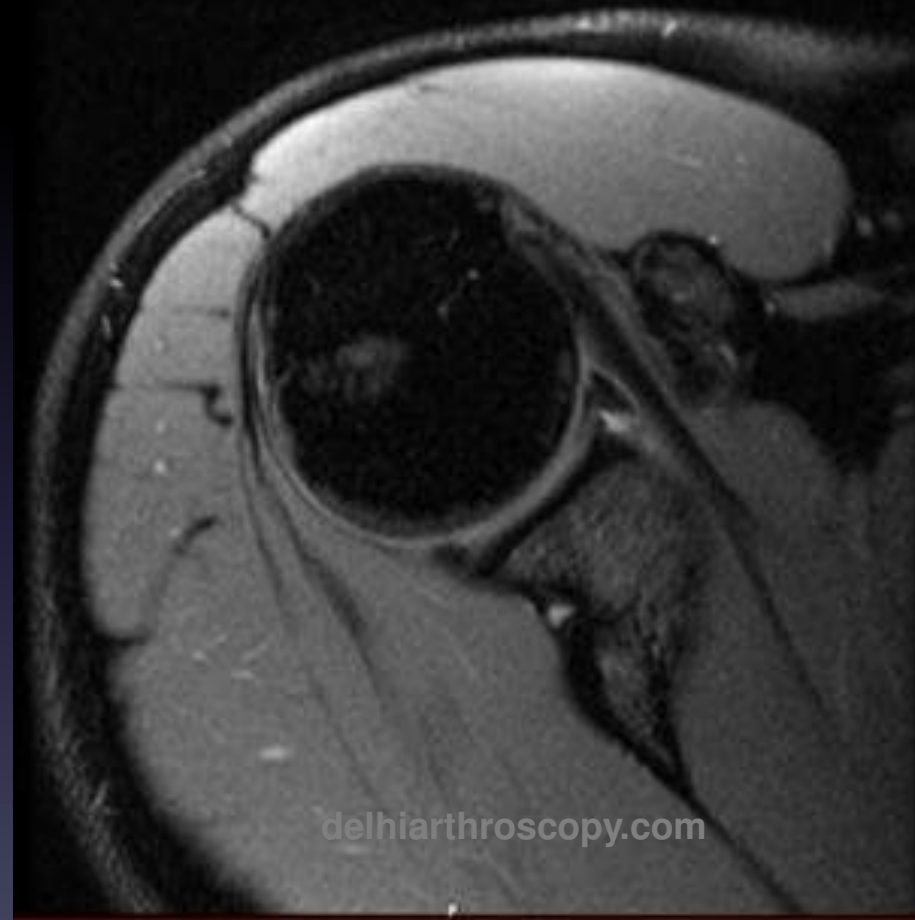


delhiarthroscopy.com

Normal Axial Cuts

- Labrum- Ant & Post
- Gleno-humeral ligament
- Gleno-humeral cartilage
- Biceps Tendon
- Subscapularis & Teres

Minor



Arthrogram Sequence

- Distension of joints, crowded structures seen separately – Labrum, G-H ligaments, biceps anchors
- Partial articular surface RC tears
- SLAP tears

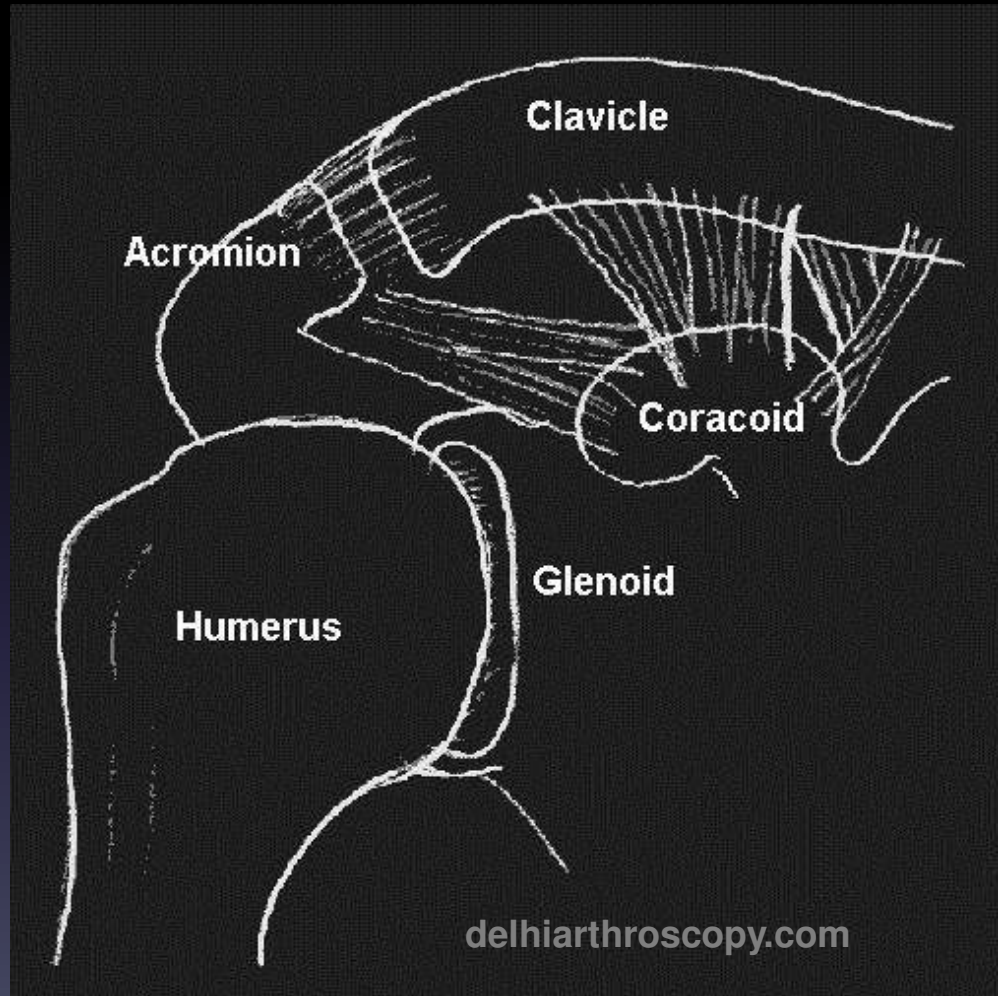


Pathological process Shoulder

- Impingement
- Rotator cuff pathology
- Instability
- Miscellaneous- Biceps, Infection, Adhesive
Capulitis

Osseous Acromial Outlet

- A-C joint
- Acromion
- Humeral Head



Extrinsic Impingement

- A-C osteophytes
- Sub-acromial
Enthesophytes
- Acromion Shape



Acromion Shape



Type 1



Type 2



Type 3

Rotator Cuff Pathology

- Tendinosis
- Partial thickness Cuff Tears
- Full thickness Cuff Tears

Tendinosis

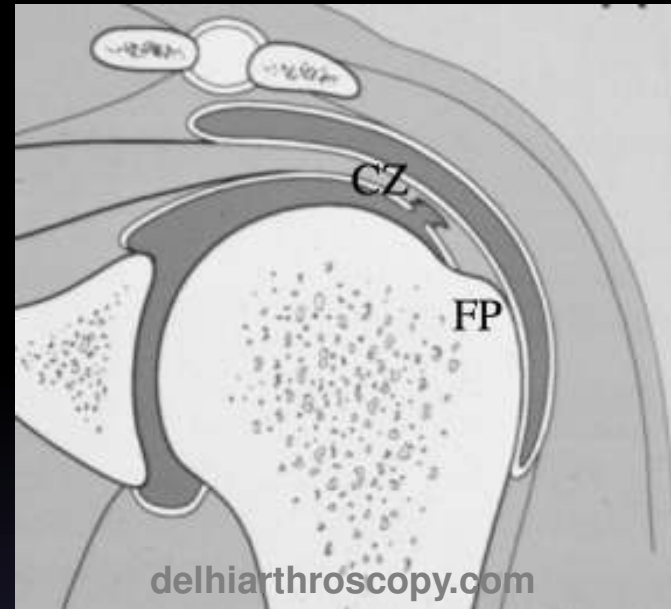
- Thickened tendon with degeneration
- Intrasubstance degeneration
- Normal to intermediate SI changes



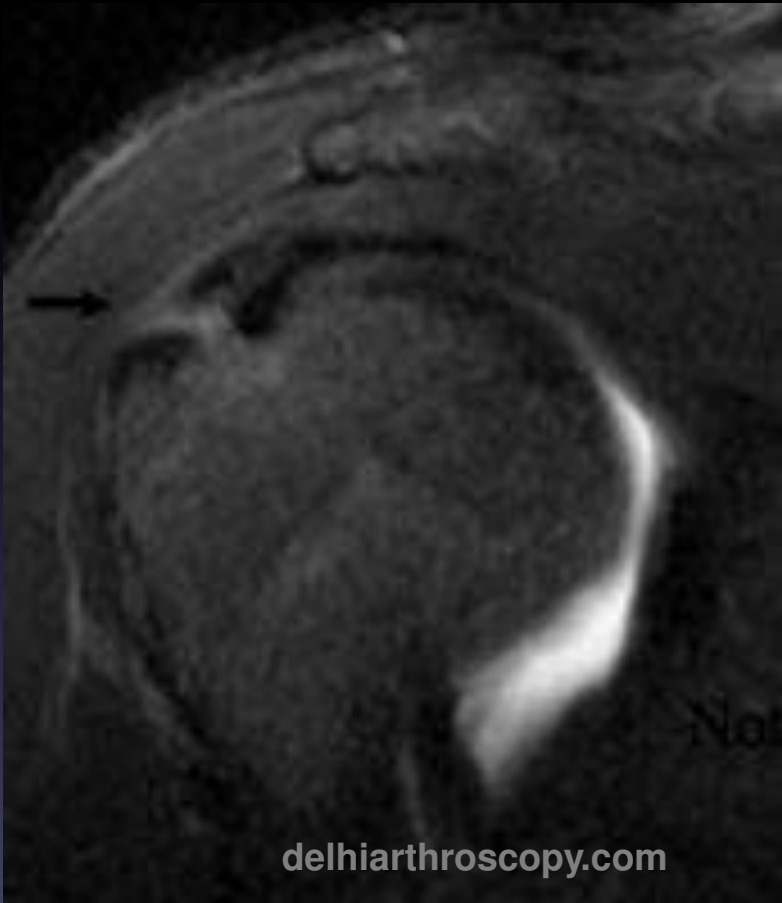
Partial Cuff Tears

Three types

- Articular side- FP, CZ
- Interstitial
- Bursal side



Partial RC Tear



Bursal Tear

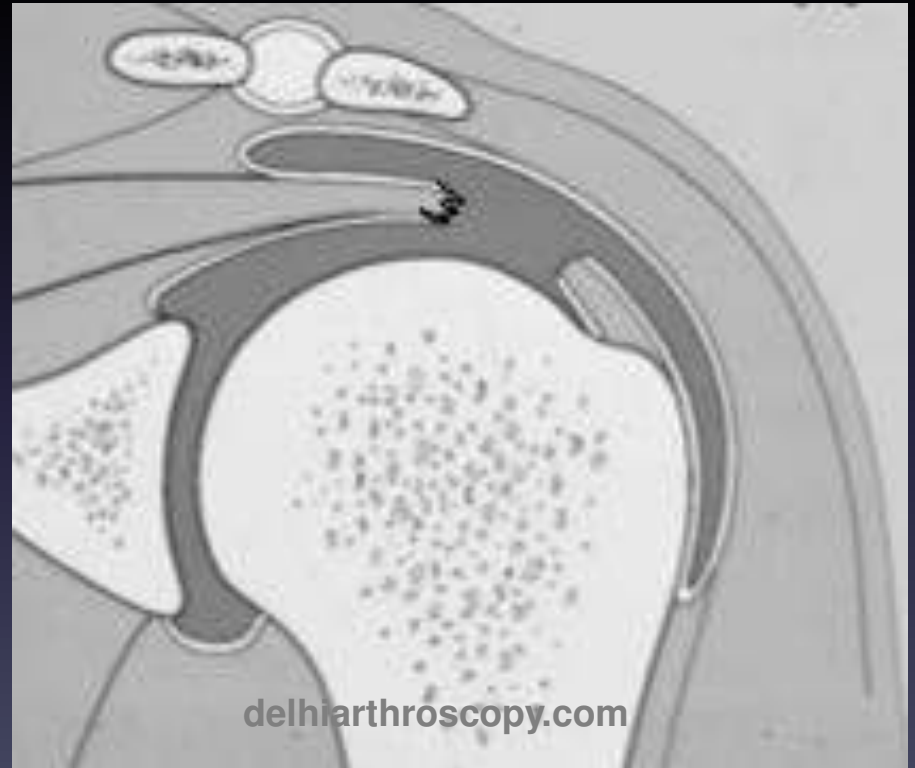


Intra-Substance Tear

delhiarthrosocpy.com

Full thickness RC tears

- Tear extending from bursal to articular surface
- Fluid in SA-SD bursa
- Retraction of tendon
- Muscle undergoes –
 - Atrophy
 - Degeneration
 - Fatty Infiltration



Full Thickness RC Tears



Full Thickness RC Tears



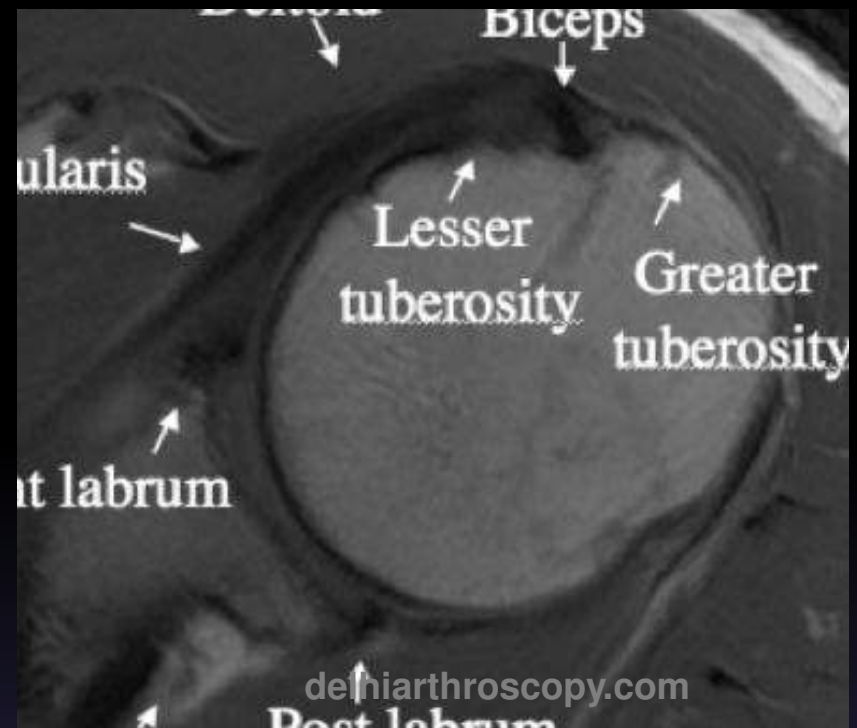
Instability

Spectrum ranging from subtle instability to frank dislocation

- Anterior Instability
- Posterior Instability
- SLAP tear

Anterior Instability

- Bankart Lesion
- Bony Bankart
- Glenoid Erosion
- Hill Sach's lesion



Anterior Instability



Anterior Instability



Bony Bankart



Glenoid Erosion

Anterior Instability

- Hill Sach's Lesion-
Postero-Sup aspect
of Humeral Head



Anterior Instability



delhiarthroscopy.com

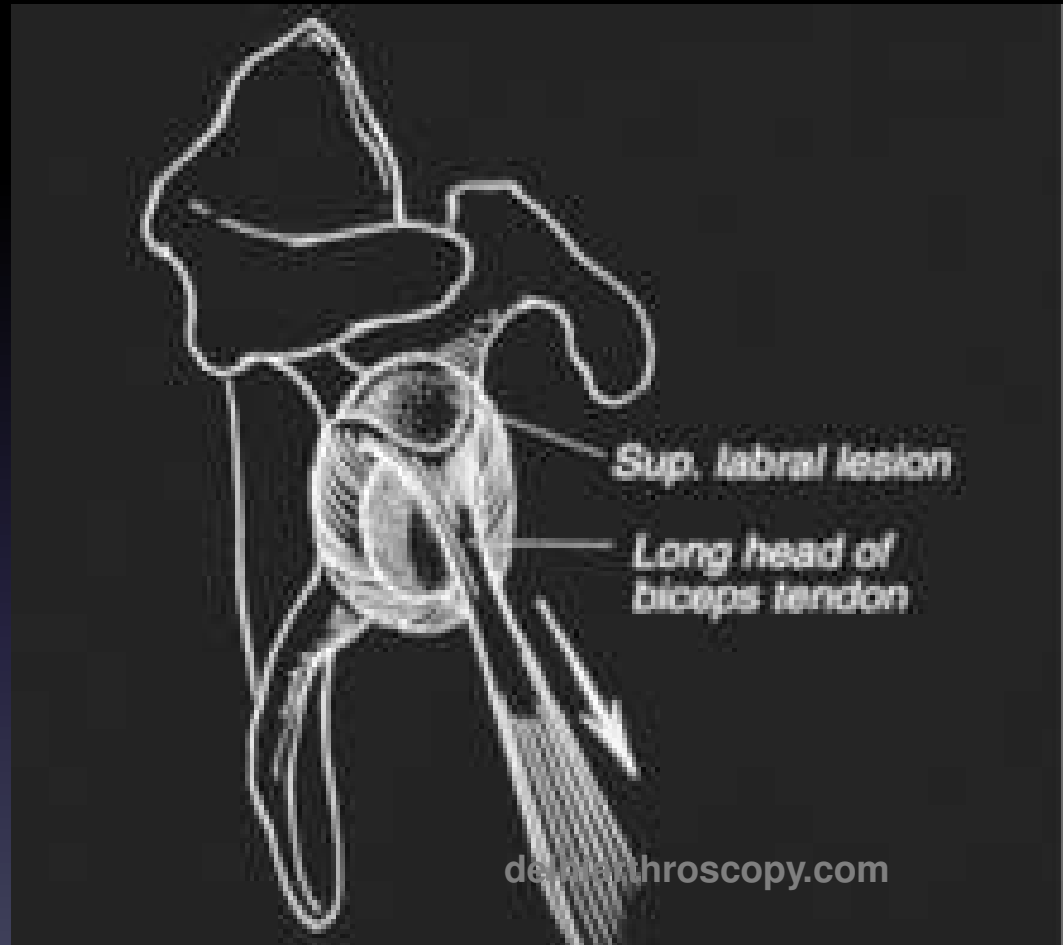
Posterior Instability

- Posterior Labral Lesion
- Reverse Hill Sach's



SLAP Tear

- Superior Labrum Antero-Posterior Tear
- Avulsion Biceps Anchor



SLAP Tear



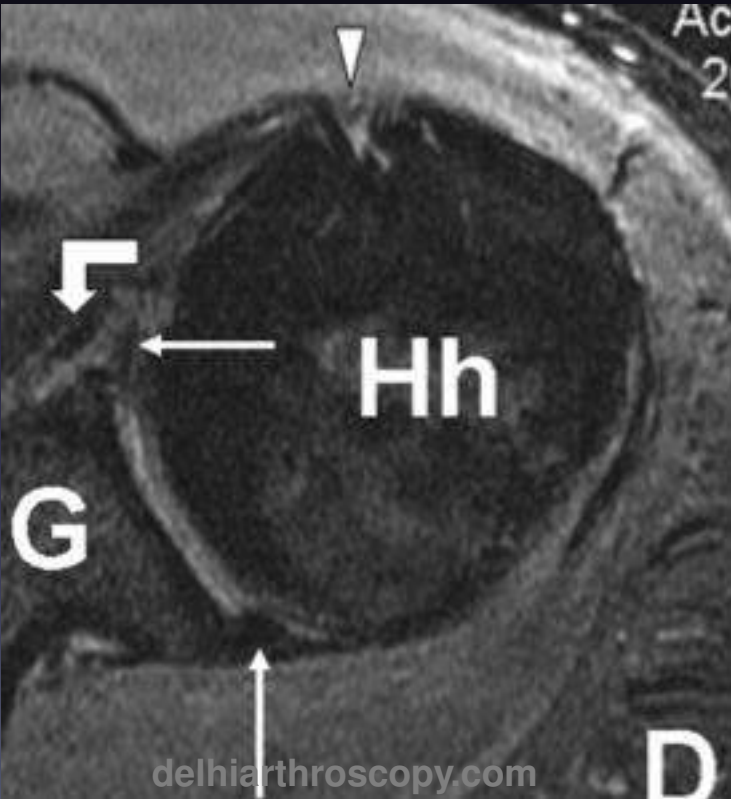
delhiarthroscopy.com

SLAP Tear



Biceps Pathology

- Tendinosis
- Rupture
- Dislocation



thr

Miscellaneous

Osteonecrosis



delhiarthroscopy.com



delhiarthroscopy.com



Infection

delhiarthroscopy.com

Occult Fractures

delhiarthroscopy.com

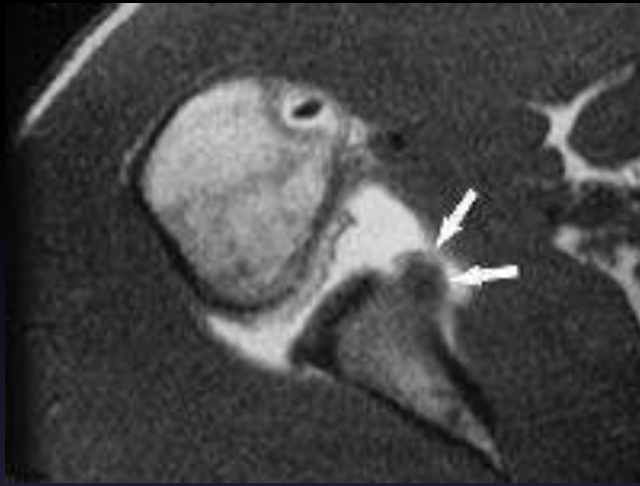
- Shoulder is a complex joint with many normal variants
- Proper clinical examination and probable clinical diagnosis
- MRI – very sensitive test for diagnosing shoulder problems
- MRI findings should corroborate clinical findings



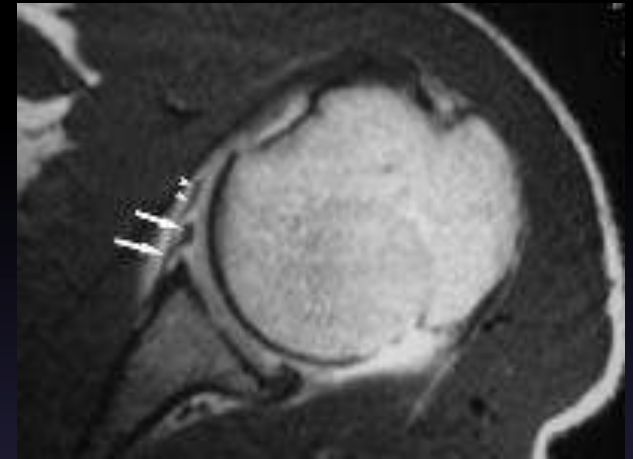
Thank You

Various lesions seen in Dislocation Shoulder

ALSPA



Perthes Lesion



Chondral Defect

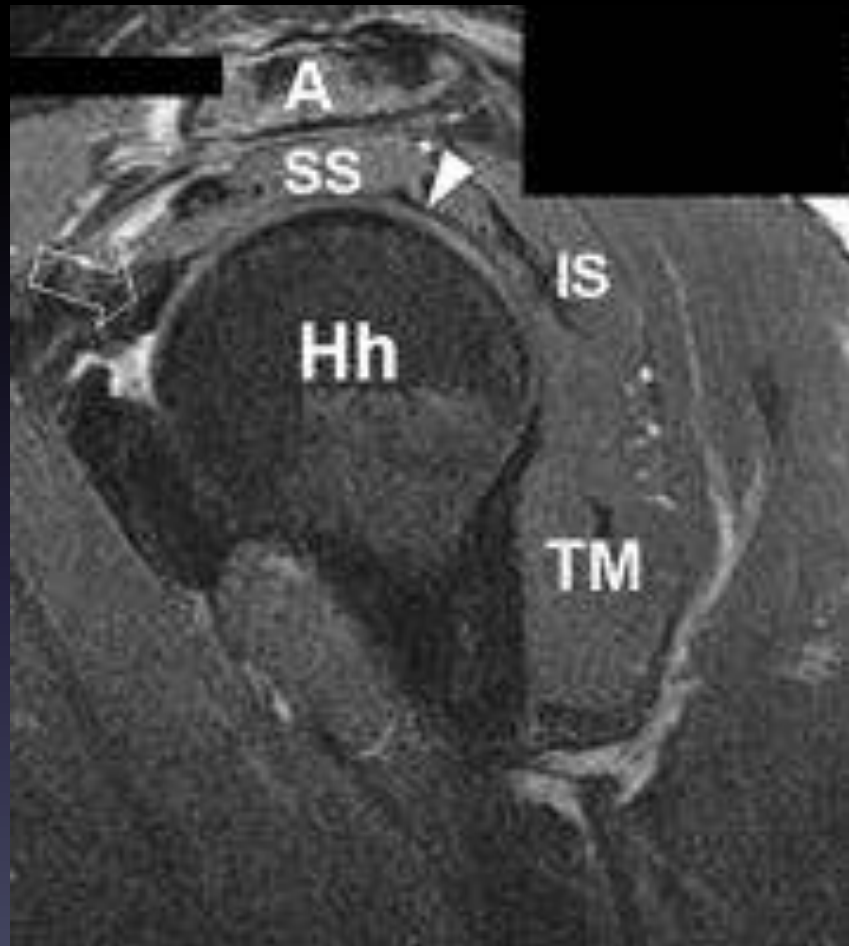


Reverse Hillsachs & Post Labral tear

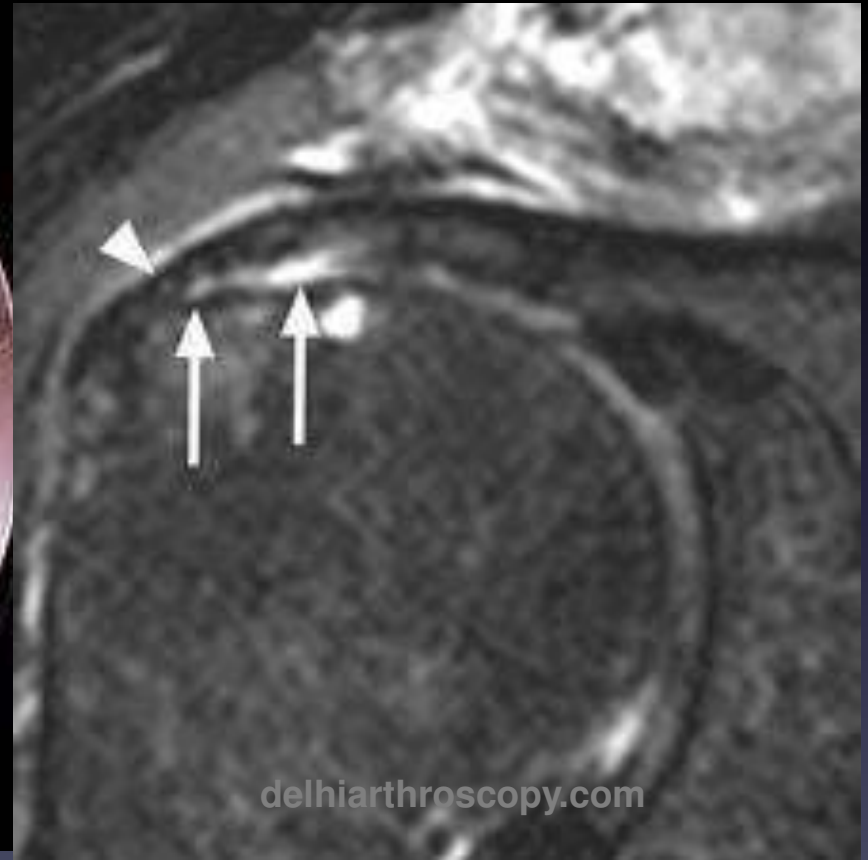
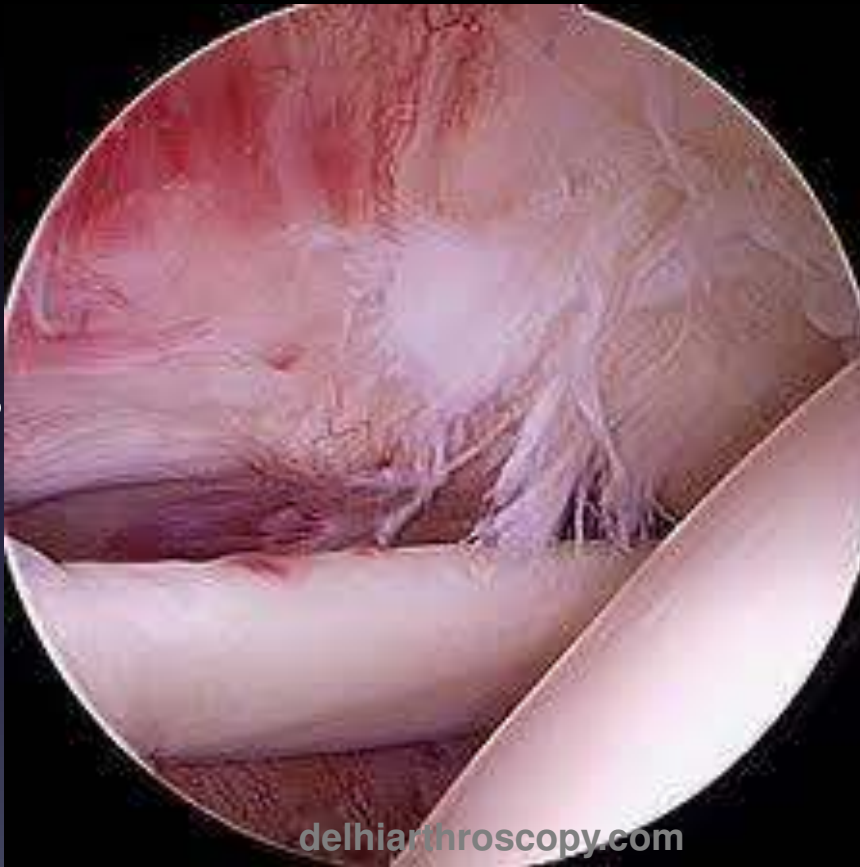


Rotator Cuff

- Supraspinatus
- Infraspinatus
- Teres minor
- Subscapularis



Partial Cuff Tears



Miscellaneous



Infection



Adhesive Capsulitis