

Shoulder pain

Rheumatology secrets

1)

Tendinitis

Inflammation within the tendon

- acute
- subacute
- chronic

Caused by:

- Trauma and associated vascular disruption
- Crystal deposition

Tendinosis (Tendinopathy)

Non inflammatory
intra tendinous atrophy and degeneration

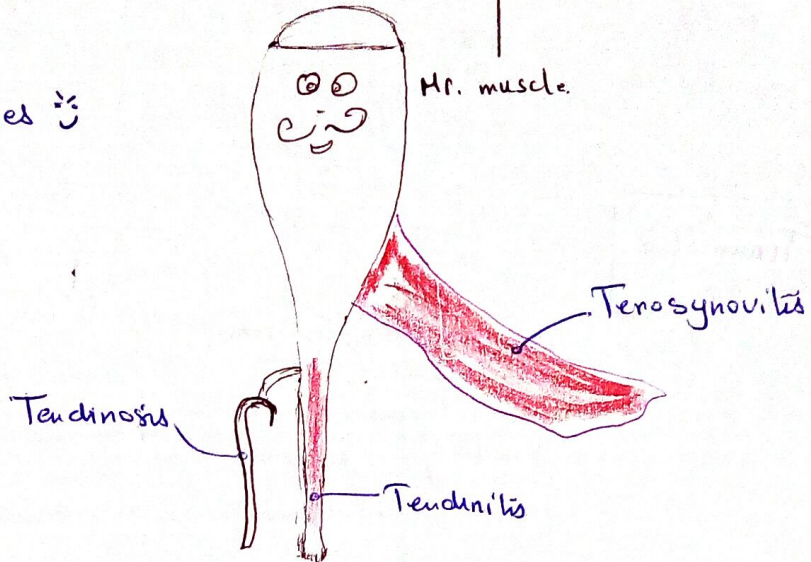
often associated with:
chronic tendinitis

Tendinosis → partial complete rupture

Tenosynovitis

Inflammation of the para tendon, the outermost sheath which is lined in some tendons by synovial mb

Overuse syndromes :



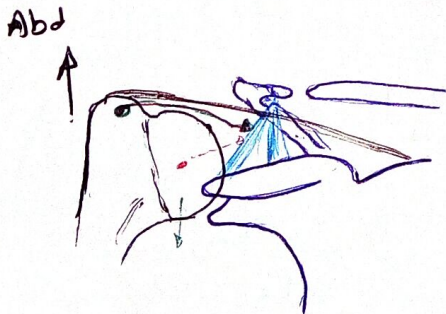
2) Shoulder pain: 3 most common non articular causes

- Impingement syndrome
- Subacromial bursitis
- Bicipital tendinitis

3) Shoulder impingement syndrome: how does it occur

Shoulder impingement sd: ~~Shoulder abduction~~ → pain → chronic

Tendon encroachment → pain → chronic condition
Shoulder abduction +++



Abd → Greater tuberosity and RC insertion toward the Coraco-acromial arch

normal shoulder

RC → dynamic stabilizer
for: humeral head depression during abduction

RC inflammation

- relative ineffectiveness at shoulder depression: Reflex inhibition
- humeral head → toward CA arch = superior translation
- random impingement on CA arch → tendon inflammation
- Reflex inhibition cycle

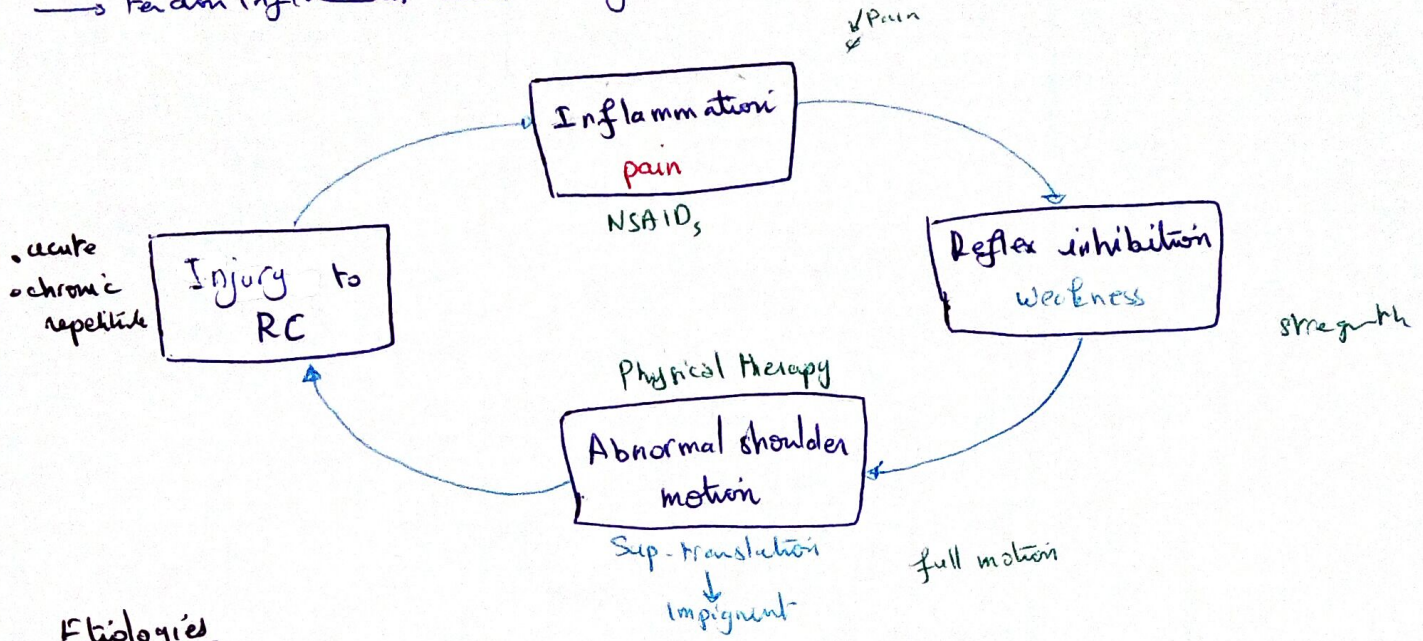
Normal: RC dynamic stabilizer of shoulder joint
 fet: humeral head depression with abduction

in abduction: Greater tuberosity → toward CA arch
 + insertions

RC inflammation

inflammation of RC → Reflex inhibition of RC fet

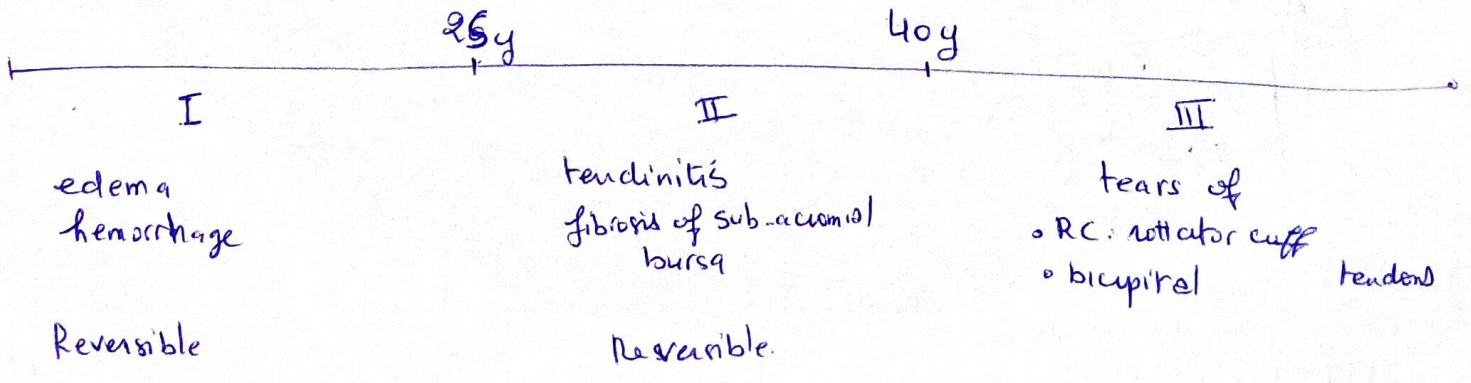
→ humeral head goes towards CA arch → tendons impingement in the CA arch
 → tendon inflamat' → ↑ Reflex inhibition



Etiologies

- Overuse occupational → dry wall workers arm repeatedly used overhead
 sporting → tennis
- Post traumatic inflammation
- Degenerative changes of tendons & surrounding skeletal structures
- Curved or hooked acromion
- Idiopathic

4) Shoulder impingement sd → 3 stages



5) Impingement sd: clinical presentation

Shoulder pain → present with active mvt → flexion (60-120°)
 → abduction
 → internal rotation
 ↓ or absent with passive mvt

Absence of swelling, erythema, warmth ≠ arthritis

Rx: Acromion
 Humeral head | < 8mm

Shoulder pain → articular or extra articular?

6) Isolation tests:

Jobe Patte Gerber

7) Impingement sign

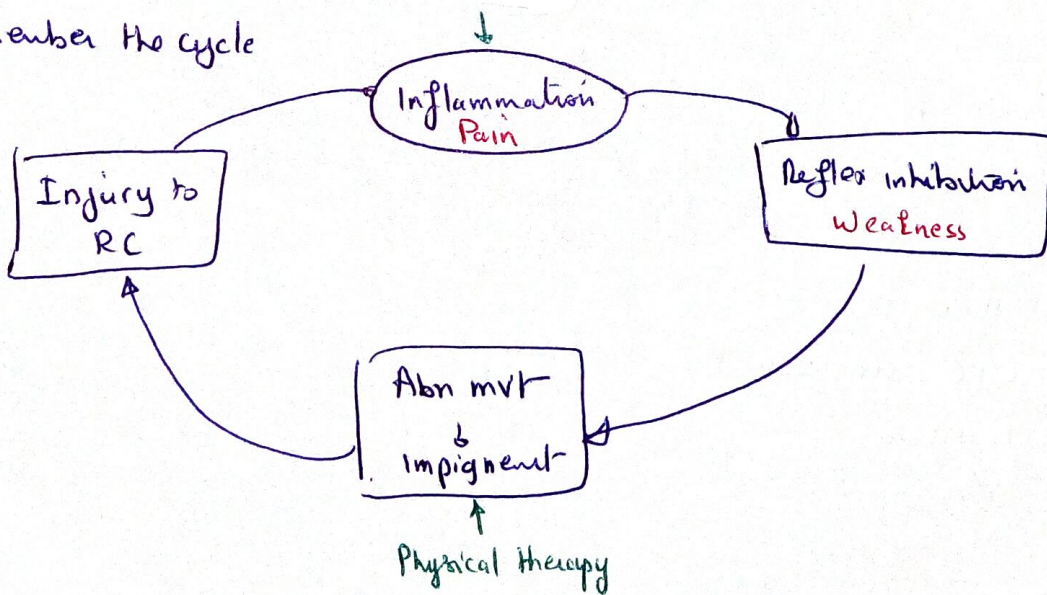
Pain induced by → local anesthesia injection in the subacromial space → Pain amelioration
 10ml of 1% plain lidocaine
 Over Hawkins Jobe

8) Trt of pain

Goals: Regain full shoulder motion
 rotator cuff strength

Means: Inflammatory [NSAIDs, PO, local injections]
 physical therapy

Remember the cycle



Non operative: 6 months → no improvement → consider surgical decompression

Surgical decompression:

- after 6 months of non operative trt
- full thickness

9) Subacromial bursitis

Clinical findings = Impingement sd

+ focal tenderness when the area of bursa is palpated

Unusual in the absence of impingement sd

Primary: crystal deposition
infection

10) Biceps tendinitis

Associated with impingement sd

Ant. shoulder pain

Pain worsened with active MVR
absent with passive MVR

Absence of swelling, erythema, warmth
Focal tenderness (palp)

⊕ Speed's test (Palm up)

11. Frozen shoulder = adhesive capsulitis or pericapsulitis

Shoulder pain → motion limitation → contraction of capsule and surroundings → motion restriction
painful *physical*

PE: ↓ ROM (50%) active and passive

> 40 y
diabetics ++

Arthrography: ↓ volume of joint capsule

Phase	Pain	Stiffness	duration
I	↑	↑	2-9 months
II	↓	↑↑	4-9 months
III	0	↓ (resolution)	5-26 months

Tnt: Physical therapy

AIN: CTC: single intra-articular inj

NSAIDs

Surgery is rarely needed.

Differential Dg

Rotator cuff disease { bla bla
Pg
trr

Adhesive capsulitis { bla bla
Pg
trr

Shoulder pain → diff. Dg

pain rising from shoulder

Gleno-humeral joint { instability + dislocation
- septic arthritis
- rheumatoid arthritis
- osteoarthritis
- traumatic labral tear

Acromio-clavicular joint
Sterno-clavicular joint

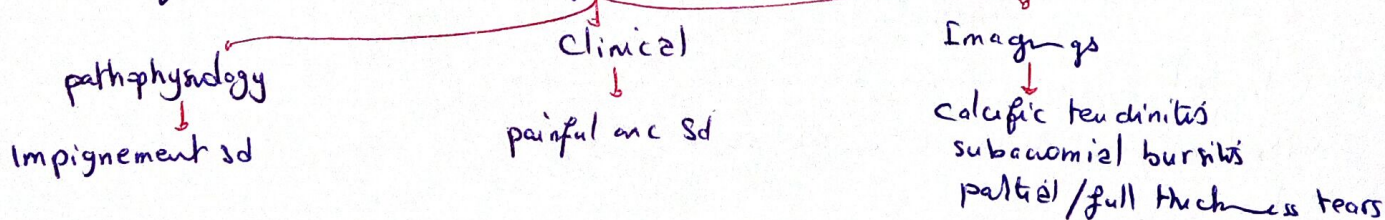
Capsule → adhesive capsulitis

Malignancy: myeloma, bony metastasis

other!

Rotator cuff disease

Rotator cuff disease wide array of dg labels



Asymptomatic cuff tears:

Common

↑ with age: 50% of normal subject > 60 y ⇔ ∈ normal aging process + repetitive microtrauma

Asymptomatic tears — over time —> symptomatic glenohumeral arthritis

Young people: - overhead sports

- occupational: repetitive mvts, working with vibrating tools in an awkward ad/or overhead postures similar work for a long time

Presentation

Pain } shoulder
 | lateral aspect of upper arm
 worse with overhead activities
 at night, when lying on the affected side

PE: Pain midrange of active abduction
 on resisted abduction +/- ER

	<u>Adhesive capsulitis</u>	<u>Rotator cuff disease</u>
Motion	Active	Active
Restriction	Passive	

Pain }
 Weakness } → significant tear
 Atrophy }

Drop arm → complete/large tear


Calcific tendinitis

Women

30-50 y

Calcific deposits formation and resorption within the cuff

Pain }
 Limitation of shoulder mvs } → acute onset
 } → severe intensity

Later: S. of  present

Dg: Clinical +++ ✓

Biology } not required in the absence of Red flags
 Rx }

Rx

exclude some ≠ like OA

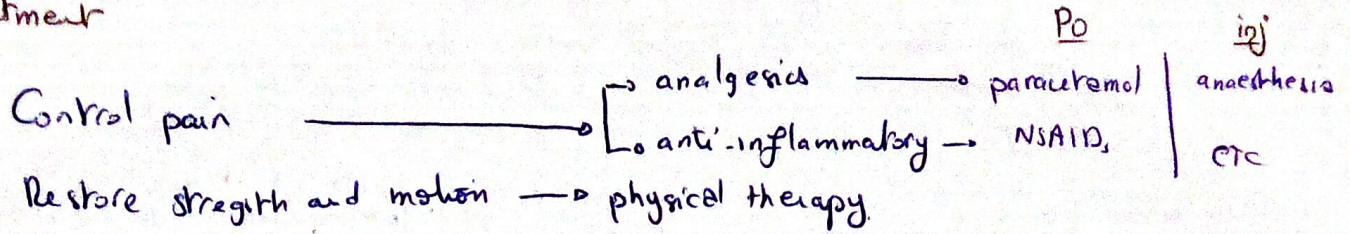
✓ calcific tendinitis: fluffy calcific deposits proximal to rotator cuff insertion
 ESR + WBC ↑

US/MRI: full thickness tears

Trr Control pain → Analgesics, NSAIDs
 Restore full motion of the shoulder → Physical therapy
 full strength of muscles

subacromial inj ^{CTC} anaesthesia → rapid relief but for few weeks only

Treatment



CTC w/ anaesthesia inj. in subacromial space:

- rapid relief of pain
- for few weeks only
- 2-3 times at 6 weeks []

Surgery: failure of conservative management to control the symptoms

subacromial space decompression
+/- rotator cuff repair

Calcific deposits:

- ⊙⊙ fluoroscopic → needling
- ⊙⊙ M/S → needle aspiration + leverage ⇒ pain relief
- ESWT → improve Rx appearance

Adhesive capsulitis: frozen shoulder

women slightly

people with diabetes, ↑ severity

diabetes ↑ susceptibility severity

50-60 y

rare before 40 y

Cause: not understood

idiopathic +++

context of prolonged shoulder immobility

3 phases (previously mentioned)

Shoulder pain worse at night when lying on the affected side. ↓ ROM P and A

→ Severe disability

→ self limited within 2-3 y but 40% of patients → persistent symptoms

Pg: Clinical

MV restriction

active and passive

all planes especially external rotation

RC → abd
Capsule → ER

IR

Control severe pain
Improve ROM
Promote function

Good prognosis

Analgesics, NSAID,
Local anaesthesia, etc inj → rapid
→ 6-7 w

Alternatives $\left\{ \begin{array}{l} \text{arthro dilatation} \\ \text{manipulation under anaesthesia} \\ \text{arthroscopic capsular release} \end{array} \right.$

Arthro dilatation

Local anaesthetic + GTS + saline - 20-45 ml

Radio guidance

Sustained benefit $\left\{ \begin{array}{l} \text{pain} \\ \text{ROM} \\ \text{function} \end{array} \right.$

Made effective in phase II and III

Manipulation

Capsular release

} → physiotherapy