

Facts to Remember and clinicoanatomical problems—Scapular Region

Facts to Remember – Scapular Region

- Scapular region contains **deltoid, rotator cuff muscles (SITS), teres major, triceps (long head)**.
- **Deltoid** ? chief abductor of arm (15°–90°), supplied by **axillary nerve**.
- **Rotator cuff muscles (SITS)** stabilize shoulder joint.
 - Supraspinatus ? initiates abduction (0–15°).
 - Infraspinatus ? lateral rotation.
 - Teres minor ? lateral rotation.
 - Subscapularis ? medial rotation, adduction.
- **Quadrangular space** ? axillary nerve + posterior circumflex humeral artery.
- **Upper triangular space** ? circumflex scapular artery.
- **Lower triangular space (interval)** ? radial nerve + profunda brachii artery.
- **Axillary nerve injury** ? loss of abduction beyond 15°, deltoid wasting, regimental badge anesthesia.
- **Suprascapular nerve injury** ? loss of initiation of abduction and weak lateral rotation.

- **Scapular anastomosis** maintains blood supply if axillary artery is ligated proximal to subscapular artery.
- Common site of **rotator cuff tears** = supraspinatus tendon.
- **Posterior axillary fold** formed by latissimus dorsi and teres major.
- **Painful arc syndrome** ? 60–120° abduction due to supraspinatus impingement.
- **Safe site for deltoid injection** ? 2–3 cm below acromion.

Clinicoanatomical Problems – Scapular Region

1. Axillary Nerve Injury

- **Case:** After fracture of surgical neck of humerus, patient cannot abduct arm beyond 15°.
- **Diagnosis:** Axillary nerve palsy ? deltoid & teres minor paralysis.

2. Rotator Cuff Tear

- **Case:** A 55-year-old with painful abduction between 60–120°.
- **Diagnosis:** Supraspinatus tendon tear (commonest).

3. Quadrangular Space Syndrome

- **Case:** Athlete presents with shoulder pain, weakness of abduction, paresthesia over deltoid.
- **Diagnosis:** Axillary nerve compression in quadrangular space.

4. Suprascapular Nerve Entrapment

- **Case:** Patient with weakness of initiation of abduction and external rotation.
- **Diagnosis:** Suprascapular nerve compression at suprascapular notch.

5. Radial Nerve Injury in Triangular Interval

- **Case:** Fracture of humeral shaft causes wrist drop.
- **Diagnosis:** Radial nerve damaged in triangular interval.

6. Shoulder Dislocation (Inferior)

- **Case:** Post-dislocation, patient shows deltoid paralysis and sensory loss over regimental badge area.
- **Diagnosis:** Axillary nerve injury.

7. Subscapularis Test (Lift-off Test)

- **Case:** Patient unable to lift hand off back.
- **Diagnosis:** Subscapularis tear/weakness.

8. External Rotation Weakness

- **Case:** Loss of external rotation but deltoid intact.
- **Diagnosis:** Infraspinatus and teres minor injury.

9. Surgical Neck Fracture with Vessel Injury

- **Case:** Humeral fracture with massive shoulder swelling.

- **Diagnosis:** Posterior circumflex humeral artery injury.

10. Collateral Circulation

- **Case:** Ligation of 1st part of axillary artery ? arm still receives blood supply.
- **Diagnosis:** Collateral flow via scapular anastomosis (suprascapular ? circumflex scapular