

KEY WORDS brachial plexus

Trace the brachial plexus and localise nerve lesions from motor signs.

C5–T1 → trunks → cords → musculocutaneous (flex), axillary (abduct), radial (extend), median (oppose), ulnar (spread).

Wrist drop = radial ✓; ape hand = median at the carpal tunnel ✓; claw hand = ulnar at the elbow ✓ – test the movement, name the nerve.

2.1 Which nerve runs in the groove behind the medial epicondyle? [3]

2.2 Which nerve injury spares the shoulder but abolishes elbow extension? [3]

2.3 Name the roots of the brachial plexus. [3]

Name the nerve and the likely site (spiral groove). Explain why sensation over the dorsal first web space is affected. Predict the effect on elbow extension and explain why. [7]

Localise the lesion (median, carpal tunnel). Explain why the forearm pronators and flexors are SPARED in this site. State the classic night symptom and its mechanism. [7]

Solutions

2.1

- Ulnar nerve.

2.2

- Radial nerve (elbow extension = triceps, radial; the site spares the branch pattern).

2.3

- C5, C6, C7, C8, T1 ✓.

3.1

- Radial nerve in the spiral groove of the humerus.
- Dorsal first web space is radial autonomous territory.
- Elbow extension spared if the triceps branches leave before the groove (typical); involved if injured higher – the level is read from which muscles share the nerve's course.

3.2

- Median nerve at the carpal tunnel (thenar branch distal).
- Forearm pronators/flexors are supplied ABOVE the tunnel – the lesion is distal to their branches.
- Night paraesthesia: immobile wrists pool oedema; the classic relief is shaking the hand.