Laboratory Evaluation I

- Normal CBC, chemistry panel, thyroid function tests, RPR, ESR, ANA, RA factor.

Electrophysiological Evaluation I (7-14-1986)

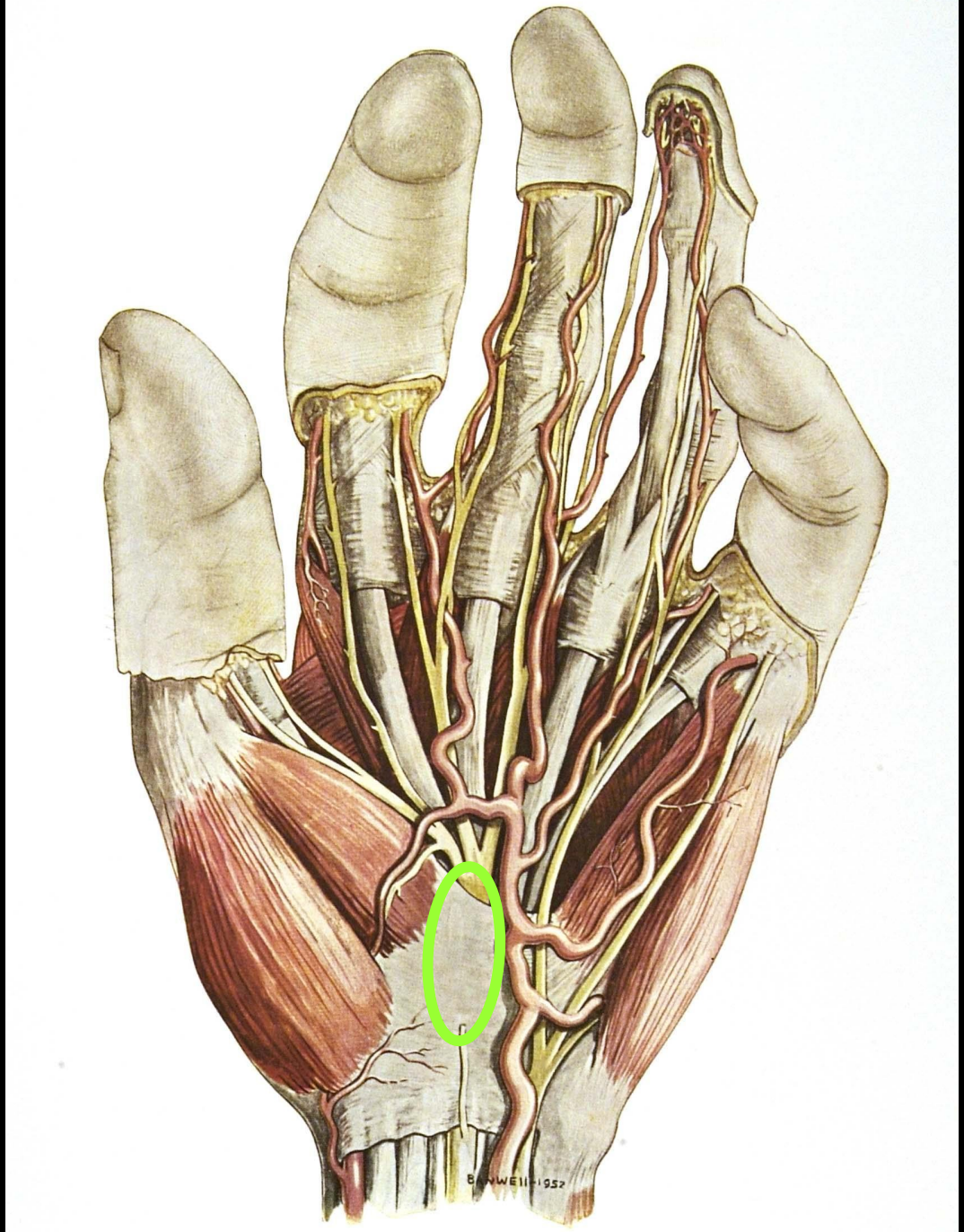
- EMG of the left upper limb showed signs of denervation (i.e., fibrillations, positive sharp waves) in all radial nerve innervated muscles distal to the supinator muscle. The brachioradialis and extensor carpi radialis muscles were normal. Median and ulnar nerve innervated muscles were normal.
- NCS of the left ulnar nerve showed mild slowing of ulnar nerve conduction velocity across the elbow.
- NCS of the left median nerve were normal.
- NCS of the left radial nerve showed no conduction of the deep branch of the nerve.

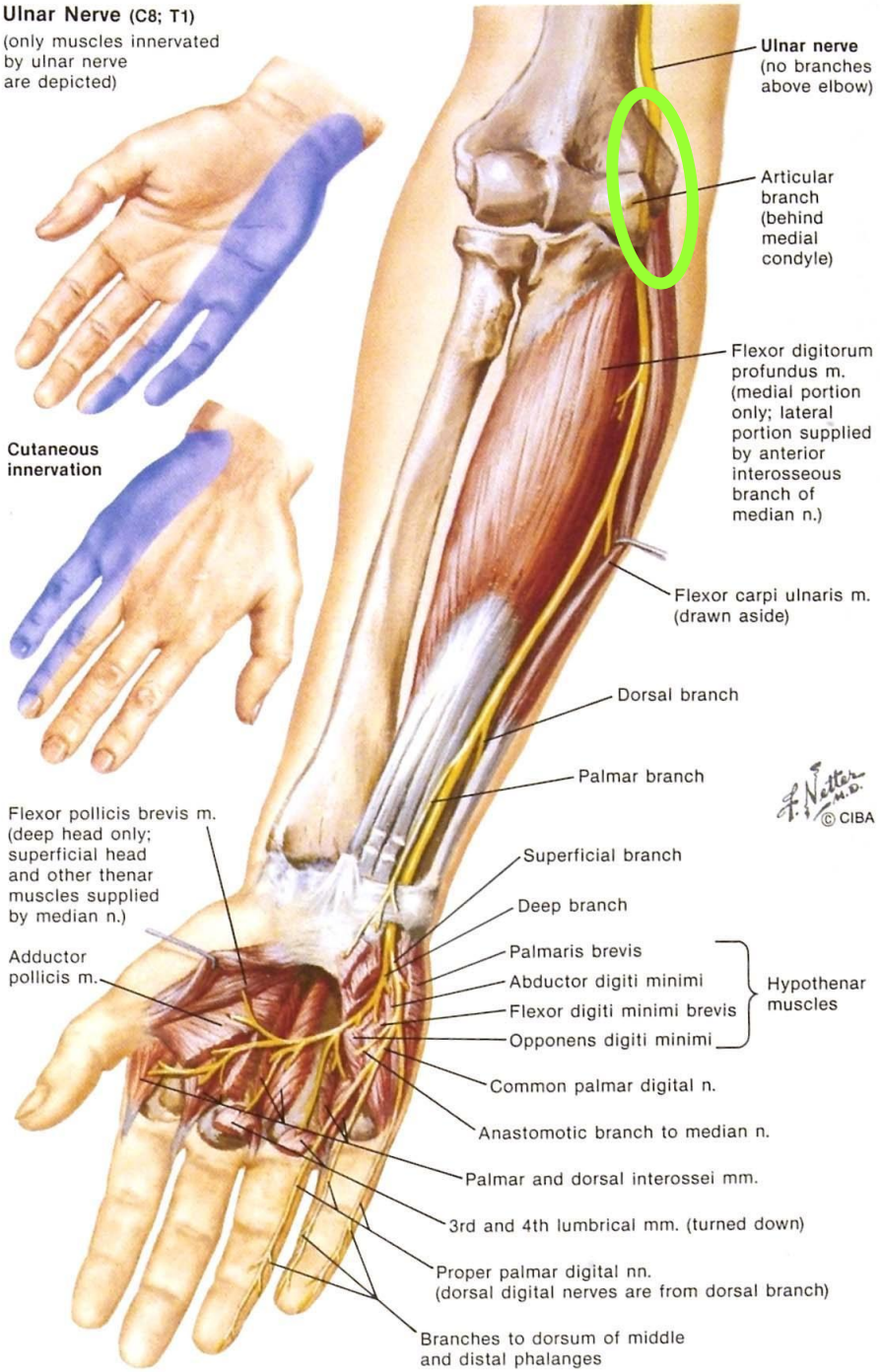
Radial Nerve Decompression I (7-24-1986)

- On the basis of the patient's clinical and EMG/NCS findings, the patient underwent a left radial nerve exploration and decompression procedure.
- The main trunk of the radial nerve, the branches to the brachioradialis and extensor carpi radialis longus muscles, and its superficial (sensory) branch appeared normal. The initial 2 branches off the deep branch of the radial nerve to the extensor carpi radialis brevis and supinator muscles also appeared healthy.

Radial Nerve Decompression II (7-24-1986)

- However, at the proximal border of the supinator muscle (i.e., the beginning of the “radial tunnel” as the nerve passes into and between the superficial and deep layers of the supinator), the deep radial nerve was compressed by a band of fibrous tissue.
- The supinator muscle and fibrous band were divided, and the deep radial nerve was decompressed.




Ulnar Nerve (C8; T1)
(only muscles innervated by ulnar nerve are depicted)
Cutaneous innervation
Ulnar nerve (no branches above elbow)
Articular branch (behind medial condyle)
Flexor digitorum profundus m. (medial portion only; lateral portion supplied by anterior interosseous branch of median n.)
Flexor carpi ulnaris m. (drawn aside)
Dorsal branch
Palmar branch
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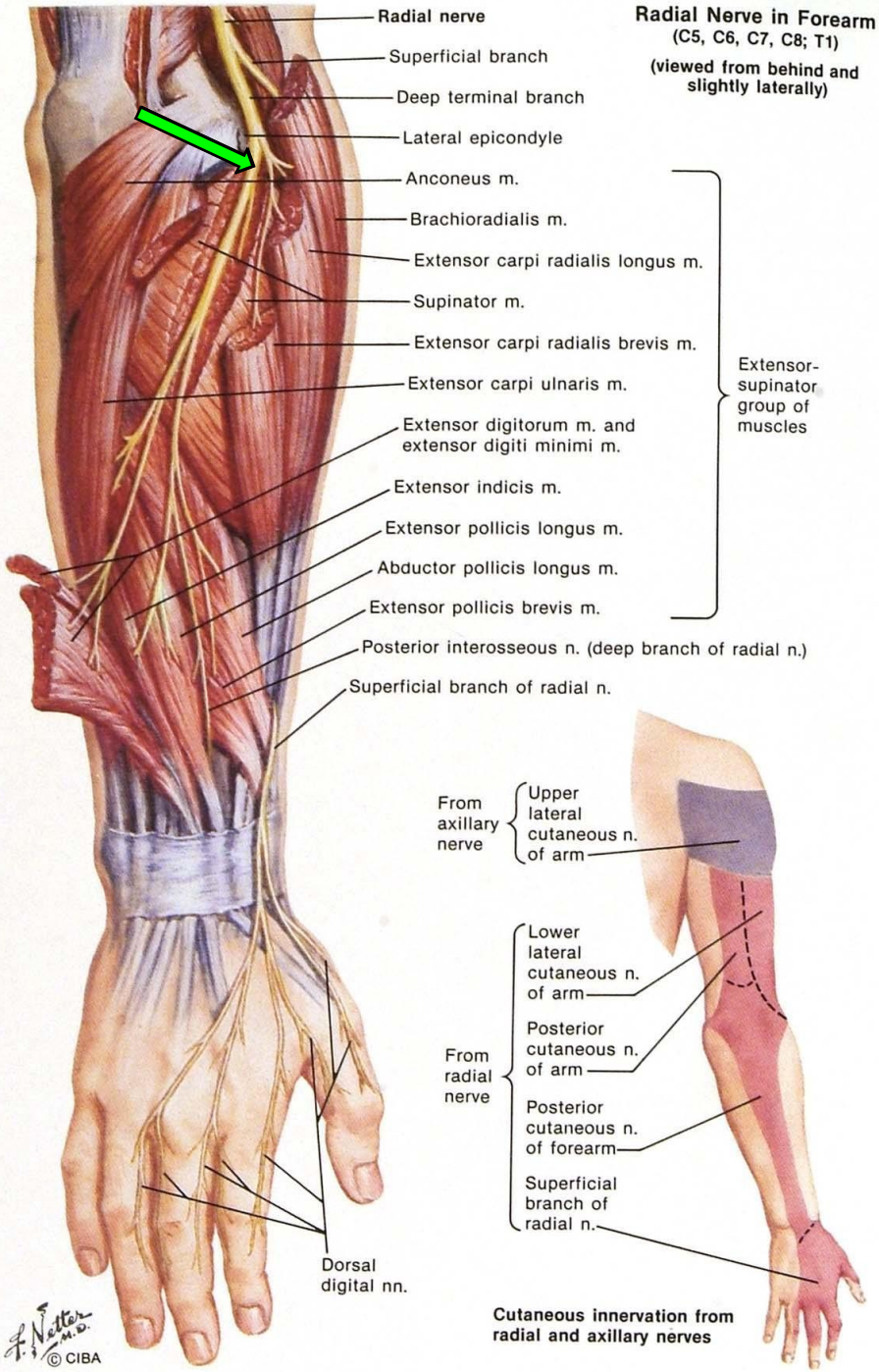
Flexor pollicis brevis m. (deep head only; superficial head and other thenar muscles supplied by median n.)
Adductor pollicis m.
Superficial branch
Deep branch
Palmaris brevis
Abductor digiti minimi
Flexor digiti minimi brevis
Opponens digiti minimi
Hypothenar muscles
Common palmar digital n.
Anastomotic branch to median n.
Palmar and dorsal interossei mm.
3rd and 4th lumbrical mm. (turned down)
Proper palmar digital nn. (dorsal digital nerves are from dorsal branch)
Branches to dorsum of middle and distal phalanges


Radial Nerve in Forearm
(C5, C6, C7, C8; T1)
(viewed from behind and slightly laterally)
Radial nerve
Superficial branch
Deep terminal branch
Lateral epicondyle
Anconeus m.
Brachioradialis m.
Extensor carpi radialis longus m.
Supinator m.
Extensor carpi radialis brevis m.
Extensor carpi ulnaris m.
Extensor digitorum m. and extensor digiti minimi m.
Extensor indicis m.
Extensor pollicis longus m.
Abductor pollicis longus m.
Extensor pollicis brevis m.
Extensor-supinator group of muscles
Posterior interosseous n. (deep branch of radial n.)
Superficial branch of radial n.
Dorsal digital nn.
From axillary nerve
Upper lateral cutaneous n. of arm
From radial nerve
Lower lateral cutaneous n. of arm
Posterior cutaneous n. of arm
Posterior cutaneous n. of forearm
Superficial branch of radial n.
Cutaneous innervation from radial and axillary nerves
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