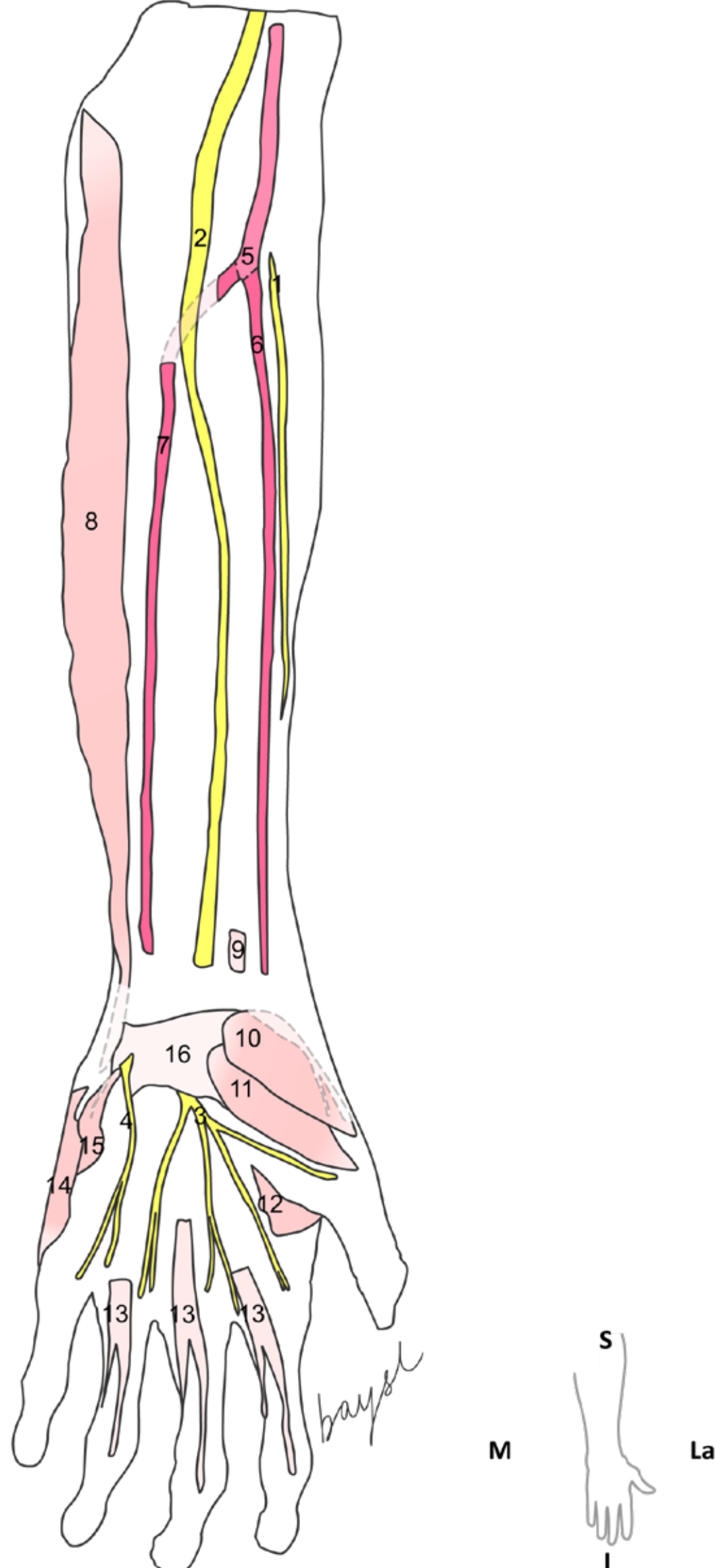


ANTERIOR COMPARTMENT OF FOREARM



Anterior view of the the forearm

- | | | |
|----------------|---|--|
| Nerves | [| 1. Median nerve |
| | | 2. Radial nerve |
| | | 3. Median nerve branches |
| | | 4. Ulnar nerve branches |
| Arteries | [| 5. Brachial artery |
| | | 6. Radial artery |
| | | 7. Ulnar artery |
| Muscles | [| 8. Flexor carpi ulnaris |
| | | 9. Flexor carpi radialis tendon (cut) |
| | | 10. Abductor pollicis brevis |
| | | 11. Flexor pollicis brevis |
| | | 12. Adductor pollicis |
| | | 13. Flexor digitorum superficialis (flexor digitorum sublimis) tendon |
| | | 14. Abductor digiti minimi |
| | | 15. Flexor digiti minimi |
| Fibrous tissue | [| 16. Flexor retinaculum |

Anterior view of the forearm showing the muscles (mainly the flexors of the wrist and fingers), arteries and nerves of the forearm after the superficial flexor muscles and most of the veins accompanying the arteries (venae comitantes) have been removed.

The nerves on the anterior surface of the forearm include the median and ulnar nerves. Although the radial nerve appears on the anterior surfaces and innervates the muscle arising from the lateral epicondyle (common extensor origin), it is described after the muscles on the posterior compartment of the forearm are studied.

Clinical Considerations

Clinical Correlation – Injuries to nerves of the forearm may be due to physical trauma (e.g. bone fracture), impact, inflammation, or even exposure to toxins. It often causes numbness and tingling or burning sensation. It can also be painless. Nerve lesion or injuries may cause muscle weakness and difficulty in moving your wrist, hand, or fingers.

Volkmann’s ischemic contracture occurs when there is a lack of blood flow (ischemia) to the forearm. This occurs when there is increased pressure due to swelling, a condition called compartment syndrome.

Question(s):

- What would be the functional deficit or loss if the median nerve is damaged at the cubital fossa or wrist? How do you test the paralysis of median nerve?
- What would be functional deficit or loss if the ulnar nerve is damaged at the epicondyle or wrist? How do you test the ulnar nerve lesion? What is “claw hand” and what is “ulnar paradox”?
- Describe the boundaries and contents of the “carpal tunnel”. What is carpal tunnel syndrome?