

(6.6%) it arose as a terminal branch at the same level of digital branches.

Median-ulnar anastomosis in the palm

Dissection revealed a connection between median and ulnar nerves in (53.3%) of the hands. The connection was demonstrated at different levels: In (20%) there was a loop connection in the palm just beneath the distal edge of the flexor retinaculum. In (33.3%) there was a connection between the superficial branches of the ulnar nerve with the digital branches of median nerve. In (6.7%) a twig from the deep branch of the ulnar nerve reached the deep stratum of the flexor pollicis brevis after giving its supply to the adductor pollicis muscle while the twig from the median nerve supplies the superficial stratum of flexor pollicis brevis.

The gross anatomy and attachment of the short muscles of the thumb was identical

to that mentioned in all established anatomical literature^[13,14]. In spite of special attention to reveal any clue of first palmar interosseous muscle. It was not detected as a separate muscle in all the dissected hands.

Variations in the nerve supply of the thenar muscles

In the EMG study, the nerve supply to the short muscles of the thumb showed considerable variations (Table-1).

It is clear from the table that adductor pollicis muscle did not receive pure median nerve innervation. On the other hand, the abductor pollicis brevis muscle did not show a pure ulnar nerve supply. The highest percentage of a mixed innervation was shown in the opponens pollicis muscle (66.7%). The abductor pollicis brevis muscle was mainly supplied by median nerve (66.7%). The adductor pollicis muscle received mainly the ulnar nerve (90.5%).

Table 1: Variations in the nerve supply of the thenar muscles according to the EMG study

Muscles (N=42)	Pure median nerve supply (%)	Pure ulnar nerve supply (%)	Mixed innervations (%)
Abductor pollicis brevis	28(66.7%)	Zero %	14(33.3%)
Flexor pollicis brevis	12(28.7%)	6(14.3%)	24(57%)
Opponens pollicis	4(9.5%)	10(24%)	28(66.5%)
Adductor pollicis	Zero %	38(90.5%)	4(9.5%)

Laterality in the mode of innervation of the thenar muscles

Tables 2 and 3 show pooled observations of right and left hands respectively. In only two cases, the observations were paired. It should be mentioned that in only two cases, right and left hands were examined in the same subject. It is obvious from the EMG procedure that the maneuver is painful for the subject and can hardly be performed for both right and left hands in the same session.

It is clear that the percentage of the mode of innervation of abductor pollicis brevis is exactly identical. However, numerical variations may be suggested when merely observing the percentage of the mode of innervation of the other three muscles, namely flexor pollicis bervis, opponens pollicis, and adductor pollicis.

Chi-square test^[15] did not show statistical significance ($p < 0.01$) regarding laterality in the mode of innervation of specific muscles.