

Absence of the musculocutaneous nerve with innervation of coracobrachialis, biceps brachii, brachialis and the lateral border of the forearm by branches from the lateral cord of the brachial plexus

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Absence of the musculocutaneous nerve with innervation of coracobrachialis, biceps brachii, brachialis and the lateral border of the forearm by branches from the lateral cord of the brachial plexus

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Anomalies of the brachial plexus and its terminal branches are not uncommon. Variations in the course and branches of the musculocutaneous nerve have been noted (Clemente, 1985; Bergman et al., 1988) and its absence was reported by (Le Minor, 1990). Several anomalies were present in the left plexus of a 59 year old Japanese man. There were no anterior and posterior divisions of the middle trunk, although there were communications between the posterior, medial and lateral cords. The musculocutaneous nerve was absent (Le Minor, 1990) and the medial and lateral roots of the median nerve did not unit in the axillary fossa but in the upper arm about 5 cm distal to the lower border of the latissimus dorsi (Adachi, 1928; Buch-Hansen, 1955). The hitherto unreported findings were branches arising directly from the lateral cord to supply the coracobrachialis, both heads of biceps brachii and the brachialis. The lateral cutaneous nerve of the forearm was derived from the lateral cord with a small contribution from the medial root of the median nerve. Since there were communications between the posterior, (a continuation of the middle trunk), and the medial and lateral cords, it is theoretically possible, but not proven, that the root values of branches innervating the flexor muscles of arm and the forearm and the skin of lateral border of the forearm were normal.

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Figure legends

Fig. a) A photograph of the left arm. The axillary vein is bent downward. Large arrow heads indicate the lateral and medial cords including the medial root. Small arrow heads indicate branches to the coracobrachialis. Small and large arrows indicate branches to the biceps brachii and a common trunk of a branch to the brachialis and the lateral cutaneous nerve of the forearm, respectively. Bar = 10 cm. b) A corresponding drawing of the left arm. Asterisks in a) and b) indicate the confluence of the lateral and medial roots of the median nerve. Abbreviations: AA, axillary artery; AN, axillary nerve; AV, axillary vein; B, brachialis; BA, brachial artery; C, cervical nerve; CB, coracobrachialis; IT, inferior trunk; L, long head of biceps brachii; LCNF, lateral cutaneous nerve of forearm; LC, lateral cord; LD, latissimus dorsi; MCNF, medial cutaneous nerve of forearm; MC, medial cord; MN, median nerve; MT, middle trunk; RN, radial nerve; S, short head of biceps brachii; ST, superior trunk; T, thoracic nerve; TB, triceps brachii; UN, ulnar nerve.

