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Letter to the Editor

Types of Communications between Musculocutaneous nerve and Median nerve

Dear Editor ,

Musculocutaneous nerve has frequent variations associated with its connection to the median nerve. The presence of communicating branch varied considerably in respect of its origin and its union with the median nerve. Communications between the nerves in the arm are rare, the communication between the median nerve and musculocutaneous nerve were described from nineteenth century. Le minor classified the communications between median nerve (MN) and musculocutaneous nerve (MCN) in to five types. In type 1, there is no communication between the MN and the MCN, in type 2, the fibres of the medial root of the MN pass through the MCN nerve and join the MN in the middle of the arm, whereas in type 3, the lateral root fibres of the MN pass along the MCN and after some distance, leave it to form the lateral root of the MN. In type 4, the MCN fibres join the lateral root of the MN and after some distance the MCN arises from the MN. In type 5, the MCN is absent and the entire fibres of the MCN pass through the lateral root and fibres to the muscles supplied by MCN branch out directly from the MN.

The most frequent variation is the presence of a communicating branch that bifurcates from the MCN and goes distally to join the MN in the lower third of arm. If the communication branch is given off in upper third of the arm, it is generally considered as a third root of the median nerve and it passes superficial to the brachial artery. We have observed one case with communicating branch between musculocutaneous nerve and median nerve in the upper third of the arm. Anatomical variations of peripheral nerves have clinical and surgical importance especially in post- traumatic evaluations and exploratory interventions of the arm for peripheral nerve repair and to some extent during flap dissections. Several authors reported the communication between musculocutaneous nerve and median nerve at different levels with different types of classifications. The interpretation of the nerve anomaly of the arm requires consideration of the phylogeny and development of the nerves of the upper limb.

Lesions of this communication branch may give rise to difficulty in diagnosis. In diagnostic clinical neurophysiology, variations in connections between musculocutaneous nerve and median nerve may have significance.

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