

About the absence of musculocutaneous nerve

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Introduction: Musculocutaneous nerve (C5-7) derives (90,5%) from the lateral cord of brachial plexus at the level of lateral border of pectoralis minor [1]. MC nerve pierces the coracobrachialis muscle and descends between the biceps brachii and brachialis to the lateral side of the elbow and terminates as the lateral cutaneous nerve of forearm. It supplies the biceps brachii, the coracobrachialis and the brachialis. Its terminal branch is purely sensory. Variations in the MC nerve course, distribution and termination have been reported and variably classified [2]. The most frequent variations are the presence of communicating branches with the median nerve [3] and the nerve not perforating the coracobrachialis muscle [4]. Total absence of MC nerve is less frequent (1.4 to 15%) [5].

Materials and Methods: 25 upper limbs from 13 cadavers were dissected. A skin incision was performed on deltopectoral groove and arm midline. Two fasciocutaneous flaps were raised, exposing brachial plexus and MC nerve.

Results: In two specimens MC was not demonstrable. In these cases, the nerve branches to the coracobrachialis muscle and the lateral cutaneous forearm nerve originated directly from the median nerve.

Conclusion: during embryogenesis MC nerve is derived relatively late, thus its absence may correspond to an incomplete differentiation of the brachial plexus. We believe this anatomical variation noteworthy because clinical procedures as plexus block or Latarjet's procedure may be affected from MCN anomalies.

References

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