

A case of communicating rami between the median and musculocutaneous nerves

Sir,

One read with great interest the article “A case of communicating rami between the median and musculocutaneous nerves passing through the substance of an accessory head of biceps brachii” by Indrasingh *et al.*^[1] This cadaveric study details an anatomical variation of the musculocutaneous nerve in the arm and adds to the known variations of the musculocutaneous and median nerves in the human body.^[2] As the authors clearly state, this has repercussions in the diagnosis and treatment of peripheral nerve injuries. The authors are to be congratulated for their work.

One is compelled to comment on in the original article.^[1] The structure marked as the ulnar nerve (UN), on very

critical inspection, appears to be arborizing in the axilla superficial to the axillary vein. This probably implies that the structure may actually be the medial cutaneous nerve of the arm or forearm, and the axillary branch an intercostobrachial nerve contribution.^[3] A deeper unlabeled structure that lies medial to the neurovascular bundle in the arm may actually be the ulnar nerve.

This mimicry is not atypical, but has significant implications. For peripheral nerve surgeons, both the ulnar nerve and the musculocutaneous nerves carry significant importance in the management of upper trunk injuries. The former is a critical donor nerve, whereas the latter has two recipients (nerve to biceps and nerve to brachialis) that may be targeted by the Oberlin procedure and the double fascicular transfer, respectively.^[4,5] As this paper points out, the nerve to brachialis may come off the median nerve. As this comment indicates, any confusion regarding the ulnar nerve, which is a mixed nerve, and the medial brachial/antebrachial cutaneous nerve, which is a sensory nerve, will lead to a catastrophic failure of the Oberlin procedure (ulnar nerve fascicle to nerve to biceps transfer). To avoid this, one has to be constantly aware of the fact that the ulnar nerve ordinarily gives off no major branches in the axilla or

in the arm. At surgery it must be stimuable using an intraoperative nerve stimulator.

If any doubt exists, the entire plexus should be dissected out to account for the several variations that may exist, as the authors have so clearly pointed out. This gains additional importance as operative exposures for peripheral nerve reanimation become more minimal.

This article has several teaching points and I would like to commend the authors for allowing these to come forth.

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