Venous varix causing median neuropathy

Case illustration

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This 64-year-old man presented with a 1-year history of weakness, wasting, pain, and numbness of his right arm. He noted numbness and pain in the entire median half of the right hand and up the right arm to approximately the elbow level. Previous surgery for carpal tunnel syndrome had provided minimal relief. On physical examination he exhibited significant weakness of the right pronator teres, flexor pollicis longus, and thenar muscles. Electromyographic studies demonstrated fibrillation potentials in the flexor carpi radialis, pronator teres, and large motor units, with decreased recruitment in the opponens pollicis, pronator quadratus, and flexor pollicis longus. These findings indicated the presence of a lesion involving the median nerve proximal to the branch supplying the pronator teres. Proximal stimulation of the median nerve did not produce evidence of a conduction block. During surgical exploration a venous varix arising in the vicinity of the junction of the medial cubital and basilic veins was found to be deforming the median nerve just above the medial epicondyle (Fig. 1). Short segment stimulation (“inching”) of the exposed nerve at 2-cm intervals demonstrated a longer latency difference when the segment just proximal to the point of compression was stimulated, as compared to other segments. The varix was excised.

There are several known causes of median nerve entrapment at the elbow region, including ligaments from an anomalous supracondylar process (Struther’s ligament) or other anomalous ligaments, entrapment within the two heads of the pronator teres, a large brachialis muscle contributing to compression by overlying bicipital aponeurosis and facertus fibrosis, or bony ligamentous injuries. Vascular causes such as thrombosis or other anomalies such as a persistent median artery, an abnormally enlarged ulnar artery, or false aneurysm of the brachial artery have all been reported to cause median neuropathy. However, there are no previous reports in the literature of a venous varix causing median neuropathy.

References


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