CASE REPORT

Ulnar Nerve Palsy Due to Concomitant Compression by the Anconeus Epitrochlearis Muscle and a Ganglion Cyst

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Compression neuropathy of the ulnar nerve at the elbow is commonly caused by constriction at the fibrous cubital tunnel or an anatomical elbow deformity. Many uncommon causes of compression have been described, including Osborne’s band, ulnar nerve subluxation,1 anatomical confines of the cubital tunnel, elbow osteoarthritis, ganglion,2 prominent medial head of triceps,3 and an anconeus epitrochlearis.1-4

This article presents ulnar nerve palsy with concomitant compression by a supernumerary anconeus epitrochlearis muscle and a ganglion cyst.

CASE REPORT

A 51-year-old man presented with increasing tingling and numbness in the small fingers of the right hand of 2 months’ duration. No specific injury to the right upper limb was reported.

Physical examination revealed positive Tinel’s sign over the cubital tunnel and a tender mass distal to the medial humeral epicondyle. Light-touch sensation of the involved fingers was severely impaired. Motor function was normal. Right elbow range of motion was decreased (15°-130° versus 0°-135° on the left) compared to the uninvolved limb.

Radiographs of the right elbow did not reveal bony pathology. Electrophysiology showed a reduction in the nerve-conduction velocity of the ulnar nerve across the elbow. Surgical exploration revealed a 1-cm aberrant muscle crossing the ulnar nerve transversely, originating from the medial humeral epicondyle and inserting into the olecranon (Figure 1). A 2×1×1-cm ganglion cyst was noted close to the head of the flexor carpi ulnaris. The ulnar nerve was severely compressed by both lesions when the elbow was flexed 90°. The nerve was decompressed by resection of the aberrant muscle and ganglion cyst excision (Figures 2 and 3). Anterior transposition of the ulnar nerve was not performed following decompression.

One month postoperatively, the tingling sensation subsided, with only mild numbness remaining. Electrophysiology confirmed improved ulnar nerve conduction velocity. Two years postoperatively, the patient was able to perform full range of activities, without symptom recurrence.

DISCUSSION

The anconeus epitrochlearis muscle is a common anatomical variant. Although it does not typically affect the ulnar nerve, this muscle has been reported to cause ulnar nerve palsy.5-10 In this patient, the operative findings show the anconeus epitrochlearis muscle compressing the ulnar nerve. The nerve entrapment effect was exacerbated by the coincident ganglion cyst in the cubital tunnel. Surgical decompression achieved relief.

REFERENCES

2. Vanderpool DW, Chalmers J, Lamb DW, Whiston TB. Peripheral compression lesions of the


