



Figure. (A) Atrophy of right thenar and first dorsal interossei muscles. (B) Chest radiograph demonstrating bilateral cervical ribs. Different angulations of the distal portion of the articulating cervical ribs on the two sides (slightly upward on the right and downward on the left) is visible in this view (arrowheads), although this was better seen in oblique views (not shown).

Neurologic thoracic outlet syndrome

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A 23-year-old woman noted at age 13 years intermittent right arm pain, numbness, and forearm finger flexor cramps. Progressive weakness and atrophy of the right hand and numbness in the medial forearm and medial palm developed at age 20 years. Examination showed moderate weakness without atrophy of abductor digiti minimi (ADM) and severe atrophy and weakness of first dorsal interosseous (FDI) and abductor pollicis brevis (APB) (figure). Strength was normal for pronator teres, flexor pollicis longus, all finger flexors, and flexor carpi ulnaris. A sensory disturbance was present in the right ulnar, dorsal ulnar cutaneous, and medial antebrachial cutaneous nerve territories. Electrophysiologic studies showed normal median and radial sensory studies, absent right ulnar and medial antebrachial cutaneous sensory nerve action poten-

tials, absent median-APB compound muscle action potential (CMAP), normal ulnar-ADM CMAP amplitude, and prolongation of ulnar-ADM and ulnar-FDI minimum F-wave latencies. Limited needle EMG studies showed fibrillation potentials in right APB and ADM but not finger extensors, a discrete interference pattern in APB, and a mildly reduced interference pattern in ADM.

The neurologic thoracic outlet syndrome is a rare disorder affecting the medial cord or lower trunk of the brachial plexus.¹ Bilateral cervical ribs or fibrous bands from elongated C7 transverse processes are the typical causes, although manifestations are usually unilateral. In this patient, the distinct angulations of the cervical ribs on the two sides likely accounted for the unilateral presentation.

1. Le Forestier N, Moulouguet A, Maisonobe T, Leger JM, Bouche P. True neurogenic thoracic outlet syndrome: electrophysiological diagnosis in six cases. *Muscle Nerve* 1998;21:1129-1134.

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