P 2-92

Distal Type of Neuralgic Amyotrophy Presenting with Multifocal Motor Neuropathy : A Case report

Jung Ho Yang[1*], Seung Hoon Han[1†]

Hanyang University College of Medicine, Department of Rehabilitation Medicine[1]

Introduction

A distal form of neuralgic amyotrophy in which weakness is limited to the forearm and hand muscles is rare and not explicitly mentioned in many neurological textbooks. We report a case that shows left hand motor weakness without any sensory symptom and diagnoses of distal type neuralgic amyotrophy.

Case presentation

Fifty eight-year-old male presented with nuchal pain with radiating pain to left upper extremity. On his first visit, he also showed general motor weakness of left upper extremity including shoulder and elbow. The symptoms started from 20 days earlier. Motor weakness of left hand and wrist was prominent with MRC grade 2 finger abductor and wrist extensor, respectively. Additionally, he had atrophy of left hand intrinsic muscles. However, there was no sensory abnormalities on left upper extremity. He had no specific past, personal, and family history on any muscle weakness. The patient underwent cervical spine magnetic resonance image to rule out cervical spinal cord injury or possibility of cervical radiculopathy. It showed disc space narrowing of multiple cervical intervertebral segments. Electrodiagnostic study was performed and it showed decreased amplitude of left median, ulnar, and radial compound muscle action potentials recording at Abductor pollicis brevis, Abductor digiti minimi, and Extensor indicis proprius respectively. There was no abnormality of sensory nerve action potentials and median F-wave. On needle electromyography, abnormal spontaneous activities were found in left Abductor pollicis brevis, Abductor digiti minimi, Extensor carpi radialis longus, First dorsal interosseous, Flexor carpi ulnaris, Triceps, and Extensor indicis proprius muscles. The patient started physical therapy of left upper extremity including electrical stimulation therapy and strengthening exercise of left hand. The pain improved, but motor weakness and hand intrinsic muscles atrophy still remained. At 9 month follow-up, there were no specific changes in his symptom and electrodiagnostic study.

Conclusion

This case initially shows nuchal pain with radiating pain to left upper extremity, follows by weakness and muscle atrophy on left wrist and hand. He is diagnosed as distal type of neuralgic amyotrophy via clinical history and electrodiagnostic study. This case implies that a clinician should aware of this type of neuralgic amyotrophy and diagnose it properly based on careful history taking, image, and electrodiagnostic study.