

Introduction

Cervical dystonia is a neurological movement disorder characterized by continuous or intermittent muscle contractions. Cervical dystonia is a focal form of dystonia and usually does not spread. The pathological basis of cervical dystonia is believed to be disorders of central nervous system. However, in most cases, no definitive structural lesion or neurotransmitter abnormality could be demonstrated. Cervical spinal cord lesion as causative factor of cervical dystonia is extremely rare. We report a case of cervical cord mass causing cervical dystonia

CASE REPORT

65-year-old woman developed abnormal movements and posture of neck and head 2 years ago. She recently developed both shoulders and neck pain. She had intermittent abnormal movements of neck of spasmodic nature that head and neck were pulled forwards left sideways (laterocollis), which lead to painful, intermittent repetitive movements of neck and head. She complaint of intermittent weakness in right extremities, but neurologic examination showed clumsy and weakness in left upper and lower extremities (good grade in manual muscle test). Cranial nerves and pathologic reflexes showed no abnormalities. No muscle atrophies were observed. Deep tendon reflexes were normal.

Electrodiagnostic findings showed that sensory nerve conduction, needle electromyography and motor evoked potential(MEP) were normal, but motor nerve conduction studies showed decreased amplitudes of compound motor action potentials(CMAPs) in left spinal accessory nerve (FIG 1).

Magnetic resonance imaging (MRI) demonstrated no definite abnormal finding in brain, but well-defined/enhanced mass in right ventral aspect in C3-4 level, compressing and displacing spinal cord to left and posterior side (FIG 2).

At surgery, a 1.58 × 7.8 mm sized intradural extramedullary mass was removed. Neuropathological examination reported collagen and fibrosis mass as the final diagnosis. Neurologic examination 3 months postoperatively showed disappearance of abnormal movements and posture of neck and head. There was no abnormality other than mild paresthesia in right upper limb.

Figure 1.

Electrodiagnostic study showed the abnormal finding in left spinal accessory nerve conduction study.

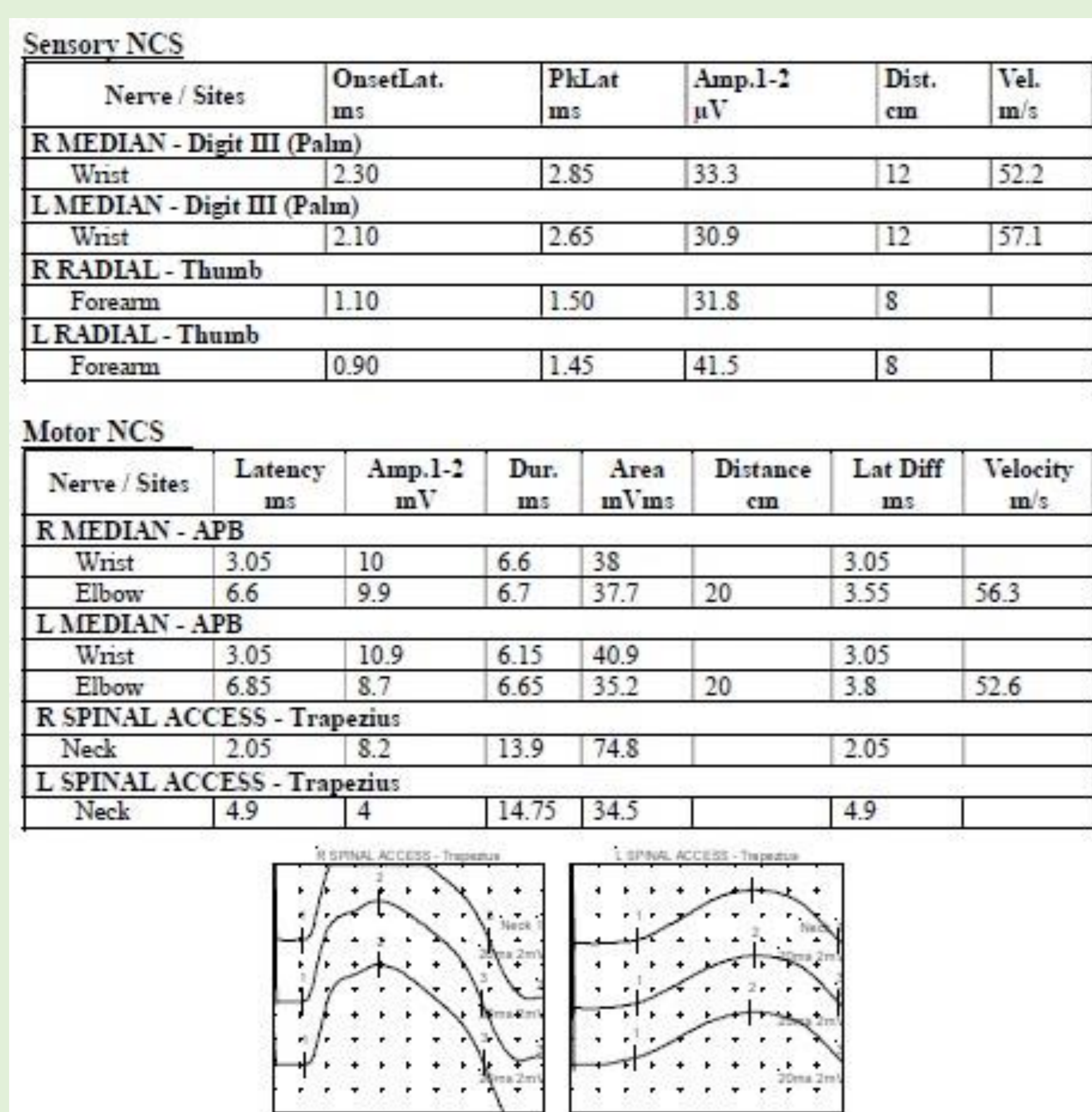


Figure 2.

Magnetic resonance imaging (MRI) demonstrated about 0.7(length) × 0.5(AP) × 0.9(transverse)cm sized well-defined/enhanced mass(arrow) in right intradural extramedullary area of C3-4 level, compressing and displacing spinal cord.



CONCLUSION

Space-occupying mass compress and displaces the spinal cord, which may affect spinal cord tract functions. This case demonstrates that joint position sensation loss may result in neck dystonic posture because the posterior displacement of spinal cord led to posterior column dysfunction, which highlights the significance of comprehensive interdisciplinary diagnostic approach.