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IMAGES OF SPINE CARE

Cervical flexion myelopathy causing distal upper limb amyotrophy

A 23-year-old man presented with insidious onset, bilateral asymmetric weakness, and atrophy of his hands and forearms. A magnetic resonance imaging (Fig. 1 Left) revealed a subtle thinning and mild hyperintensity of the cord at the C5–C7 levels. There were no significant degenerative changes. A gadolinium-enhanced magnetic resonance imaging did not show any abnormality in the neutral position (Fig. 1 Middle) but demonstrated a prominent posterior epidural space with enhancement in the dorsal aspect of the spinal canal from C5 to the upper thoracic levels in flexion (Fig. 1 Right). Electromyography was suggestive of chronic denervation in the affected myotomes. A diagnosis of Hirayama disease (juvenile muscular atrophy of the upper limbs) was made. At surgery, following a C5–C7 laminectomy, the cord bulged out after incising a tight dura (Fig. 2). A lax duraplasty was performed. There was subjective improvement in his symptoms postoperatively.

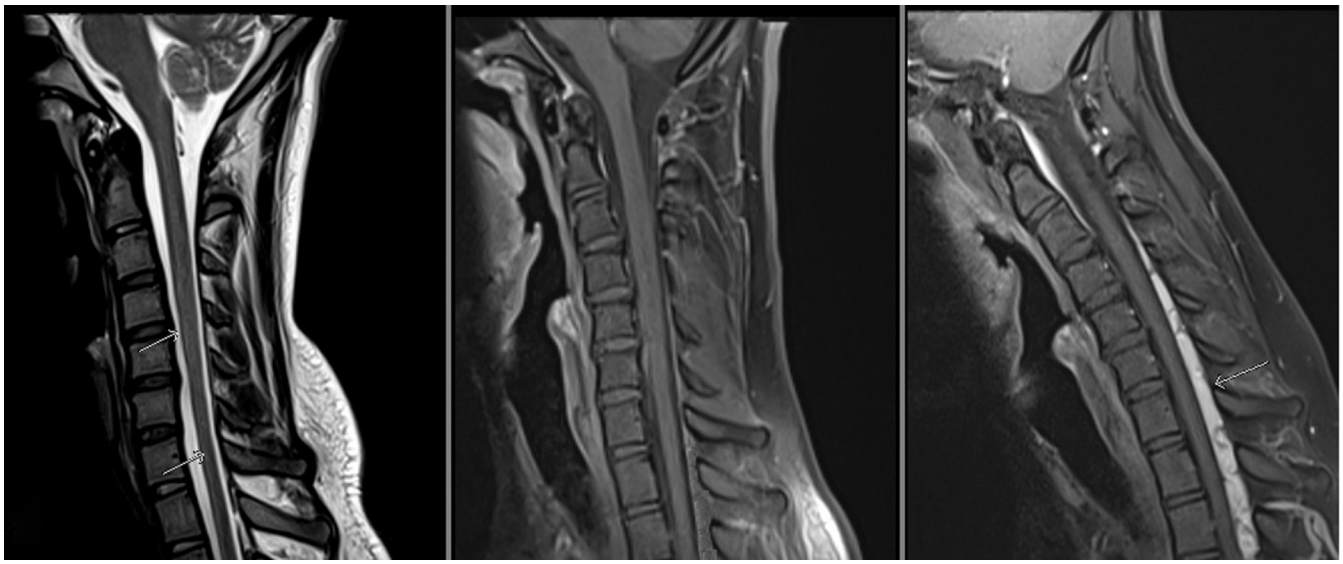

Fig. 1. Magnetic resonance imaging (MRI) of the cervical spine: (Left) Sagittal T2 sequence demonstrating subtle thinning (arrows) and mild hyperintensity of the cord at the C5–C7 levels. (Middle) Gadolinium-enhanced sagittal T1 sequence in neutral position not showing any abnormality. (Right) Flexion MRI demonstrating a prominent posterior epidural space with enhancement in the dorsal aspect of the spinal canal (arrow) from C5 to the upper thoracic levels.

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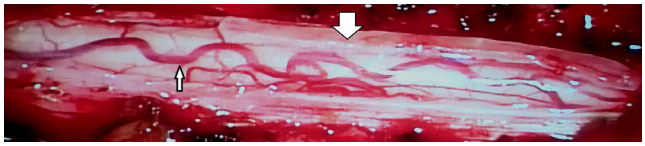

Fig. 2. Intraoperative image demonstrating a bulged cord (thin arrow) and the dural edges (thick arrow).

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