

# Hypertrophic neuropathy of the cauda equina

Hypertrophic [neuropathy](#) of the [cauda equina](#) (HNCE) is a rare form of peripheral neuropathy. The diagnosis is complicated by an insidious clinical presentation and complex radiographic images.

Kretzer et al. present a case of HNCE caused by chronic inflammatory demyelinating polyneuropathy with symptomatic improvement after decompressive lumbar laminectomy and dural expansion.

A 54-year-old woman with a history of back pain since she was in her 20s presented with low back and radicular pain that had increased during a period of 6 months, bilateral lower-extremity weakness, and sensory loss in the right thigh. Magnetic resonance imaging of the lumbosacral spine revealed multiple, poorly enhancing mass lesions and apparent intrathecal nerve root thickening from L1 to L5.

An L1-L5 decompressive laminectomy, performed with continuous somatosensory evoked potential and electromyographic monitoring, revealed multiple segmentally enlarged nerve roots. One nerve root that did not respond to high levels of stimulation was identified. This root was resected and submitted for pathological analysis. The dura was expanded with an 11-cm-long dural patch. The pathological examination revealed hypertrophic neuropathy, with extensive S-100-positive “onion bulb” formation. The patient's symptoms improved postoperatively.

HNCE is a rare disorder that can cause radicular pain and lower-extremity weakness, sensory loss, and hyporeflexia. One possible cause is demyelinating polyneuropathy. Although medical management is typically effective in the treatment of demyelinating polyneuropathy, it has little effect on compressive symptoms caused by intradural nerve root enlargement. As this case demonstrates, surgical management of symptomatic radiculopathy by lumbar laminectomy is a reasonable and effective approach to the treatment of HNCE <sup>1)</sup>.

<sup>1)</sup>

Kretzer RM, Burger PC, Tamargo RJ. Hypertrophic neuropathy of the cauda equina: case report. *Neurosurgery*. 2004 Feb;54(2):515-8; discussion 518-9. PubMed PMID: 14744300.

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