



Case Report – Expansion duraplasty via hemilaminectomy with undercutting for the treatment of Hiramaya's Disease

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Disclosures



- DePuy, Stryker, medac

Introduction & Background

Hirayama's disease is a benign juvenile form of focal myelopathy affecting the upper limbs. Previous studies have suggested that the disorder is a neck flexion induced cervical myelopathy due to a displacement of the dorsal dura. The leading hypothesis is that the short length of the cervical dural canal cannot compensate for the flexion-related increased length of the vertebral canal. It mostly affects young male adults in China, Japan and India.



Materials and Methods

We present a case of a 21 years old male patient, who presented with progressive weakness of his right arm. Electrophysiology demonstrated impairment of the cervical cord and MRI scan a kyphotic alignment of the cervical spine with cord compression from C5 to C7 through a displacement of dorsal dural sheet. MRI in flexion showed a further compression of the cord through the dorsal dura and dilation of the dorsal epidural space in combination of dilated peridural veins.

Results

To release the compression of the cord, we performed an expansion duraplasty from C5 to C7 via a right-sided hemilaminectomy with undercutting to the contralateral side. In addition, we committed the patient to wear a stiff collar for six weeks. After this period the weakness of the right arm recovered, and he was able to write again. Postoperative MRI scan demonstrated the enlargement of the intradural space.

Conclusion/discussion

Expansion duraplasty performed via an over the top laminectomy in combination to a stiff collar is an adequate treatment option of Hiramaya's disease.

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