

Surgical En-bloc Resection of Hypertrophic Ligamentum Flavum: "Lonely Flavum". Clinical Results and Surgical Technique

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Introduction

Acquired spinal stenosis is the most common condition

leading to spine surgery in the geriatric population. Spinal canal stenosis due to ligamentum flavum hypertrophy may manifest in various types of clinical presentation. For most patients surgical procedures are preferred but type and extension of posterior decompression may differ. There is a need to create a new flavum excision technique in order to prevent complications.

Methods

523 patients operated between the years 2009-2014 with lomber spinal stenosis due to hypertrophic ligamentum flavum were included in our study. 1342 lomber segments have undergone excision of flavum in addition to total laminectomy and facetectomy. Our technique is based on total en bloc excision of hypertrophic ligamentum flavum by controlling the upper and lower borders of ligamentum flavum. The second step is the disconnetion of the lateral border of the flavum from medial aspect of facet joint in craniocaudal direction. The third step is the dissection of the flavum from dura by elevating flavum from freed side. The last step is deattachment from the other facet joint.

Results

In 28 patients, dural tears were occurred. 15 of these were in the midline, 10 were in paramedian and 3 were in lateral region.26 of these were sutured and 2 of these were covered with muscle. Only 2 patients required a second surgery due to the CSF leakage.

Conclusions

Lonely flavum technique is a safe procedure in resection of hypertrophic ligamentum flavum. The aim of resection in a single piece fashion is to dissect the flavum.

Learning Objectives

By the conclusion of this session, participants should be able to perform this technique safely being aware of the importance of stepwise and orderly approach to the spinal canal stenosis. Usage of this technique not only prevents dural complications but also protects nerve roots.

References



