ASIAN SPINE JOURNAL
Technical Note
Asian Spine J 2014;8(5):667-674 • http://dx.doi.org/10.4184/asj.2014.8.5.667

Trumpet Laminectomy Microdecompression for Lumbal Canal Stenosis

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Microsurgery techniques are useful innovations towards minimizing the insult of canal stenosis. Here, we describe the trumpet laminectomy microdecompression (TLM) technique, advantages and disadvantages. Sixty-two TLM patients with lumbar disc herniation, facet hypertrophy or yellow ligament or intracanal granulation tissue. The symptoms are low back pain, dysesthesia and severe pain on both legs. Spine levels operated Th11–S1; the patients who had trumpet-type fenestration, 62.9% had hypertrophy of the facet joint, 11.3% had intracanal granulation tissue, 79.1% had hypertrophy of the yellow ligament and 64.5% had disc herniation. The average of procedure duration was 68.9 min and intraoperative blood loss was 47.4 mL. Intraoperative complications were found in 3.2% of patients, with dural damage but without cerebrospinal fluid leakage. The TLM can be performed for all ages and all levels of spinal canal stenosis, without the complication of spondilolistesis. The TLM has a shorter duration, with minimal intraoperative blood loss.

Keywords: Disc herniation; Facet joint hypertrophy; Intracanal granulation tissue; Lumbal canal stenosis; Trumpet laminectomy microdecompressionn

Introduction

Wide laminectomy via bilateral paraspinal exposure is the conventional surgical approach for the decompression of spinal canal stenosis. This classic technique allows maximal operative exposure for bilateral neural canal and/or foraminal decompression. There is a resulting extensive violation of the paraspinal muscles, the interspinous ligament, the supraspinous ligament, posterior bone elements and sometimes the capsular facet. Development of microsurgical techniques have provided innovations towards minimizing the surgical insult in surgical approaches to canal stenosis [1].

The advantage of a microsurgical approach is the possibility of a wide bilateral decompression of spinal canal or foramen at one or multiple levels, through a minimal paraspinal muscular dissection. As a result, it is possible to preserve important soft tissues and bones, which are vital for the stability of the spinal column, while at the same time being able to remove bilateral pathologies encroaching upon the spinal canal or foramina [2].

Several authors have developed various microdecompression procedures for lumbar canal stenosis, including microhemilaminotomy, interlaminar microdecompres-

Received Nov 5, 2013; Revised Dec 19, 2013; Accepted Jan 24, 2014
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