

A comparative study between traditional full laminectomy and microsurgical bilateral decompression by unilateral approach in treatment of lumbar canal stenosis.

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ABSTRACT

Background: Degenerative lumbar spinal stenosis (LSS) remains one of the most common indications for lumbar spine surgery in elderly patients. The appropriate management of LCS was a subject of debate in many studies with different outcomes and recommendations.

Objectives: The aim of this study is to evaluate and compare outcomes of minimally invasive unilateral laminectomy for bilateral decompression (ULBD) to those of standard “open” laminectomy for LCS treatment.

Methods: A prospective and randomized study in which 30 patients were included (15 for each group). Demographic, clinical and radiological data were recorded. Specific scores were used to assess clinical outcomes in both groups with one year follow up.

Results: Our study demonstrated that both standard open laminectomy and ULBD techniques are effective procedures for LSS treatment, with no statistically significant difference in most patients' outcome parameters. However, ULBD had better outcome regarding postoperative back pain but with longer length of operation.

Conclusion: Our study demonstrated the feasibility of decompressing the spinal canal by use of a unilateral approach for bilateral decompression, and it is effective as standard full laminectomy in treatment of LCS.

Keywords: Lumbar canal stenosis, laminectomy, minimally invasive decompression and ULBD.