

Back Pain Improvement after Decompression without Fusion in Patients with Lumbar Spinal Stenosis and Clinically Significant Pre-operative Back Pain

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Introduction

The effect of surgical decompression without fusion on symptoms of back pain patients with spinal stenosis is not well studied. Some surgeons believe that relief of back pain should not be an expected outcome of decompression and that substantial back pain may be a contraindication to decompression only. The objective of this study is to determine if patients with lumbar stenosis and substantial back pain can obtain significant improvements in back pain after surgical decompression without fusion or stabilization.

Methods

Analysis of the N2QOD database identified 726 patients with lumbar stenosis and a baseline back pain score of = 5/10 who underwent a surgical decompression procedure without fusion or other stabilization. Standard demographic and surgical variables were collected, as well as, patient outcomes including back and leg pain scores, ODI and EQ-5D at baseline, 3 and 12 months postoperative.

Results

The mean age of the cohort was 65.6 years; 407 (56%) were male. Mean BMI was 30.2kg/m2; 50% (326) reported never smoking; 30% (221) were former smokers, 18% (129) were current smokers. The majority of patients (294, 40%) had a two-level decompression, 208 (29%) had a three-level, 177 (24%) had a one-level, and 47 (6%) had a four-level decompression. Mean EBL was 130cc. Mean operative time was 100.85 minutes. The vast majority (88%) were routine home discharges. At three months and twelve months post-operative, there were significant improvements from baseline for back pain (7.6 to 3.2 to 3.7), leg pain (7.2 to 2.9 to 3.1), EQ-5D (0.55 to 0.76 to 0.75) and ODI (49.1 to 27.2 to 26.4).

Conclusions

Patients with lumbar stenosis and clinically significant back pain obtained improvement in back pain after decompression only surgery. Additional studies are needed to clarify the impact of patient specific characteristics, as well as, the durability of the improvement.

Learning Objectives

By the conclusion of this session, participants should be able to 1) counsel patients with lumbar stenosis and substantial back pain undergoing decompression surgery without fusion regarding outcomes 2) discuss outcomes in patients with predominant back pain 3) discuss outcomes regarding number of levels involved.

References

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