

Surgical treatment for lumbar lateral recess stenosis with the full-endoscopic interlaminar approach versus conventional microsurgical technique: a prospective, randomized, controlled study

Clinical article

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OBJECT: Extensive decompression with laminotomy where appropriate is often still described as the method of choice in surgery for lateral recess stenosis. Nonetheless, tissue-sparing procedures are becoming more common. Endoscopic techniques have become the standard in many areas because of the advantages they offer in surgical technique and rehabilitation. Transforaminal and interlaminar access provide 2 full-endoscopic (FE) techniques for lumbar spine surgery. The goal of this prospective randomized controlled study was to compare the surgical results for the FE technique in patients with degenerative lateral recess stenosis.

METHODS: A total of 161 patients with FE or microsurgical decompression underwent follow-up for 2 years. In addition to general and specific parameters, the following measuring instruments were used: visual analog scale, German version of the North American Spine Society instrument, and the Oswestry low-back pain disability questionnaire.

RESULTS: The results show that 74.5% of patients reported no longer having leg pain, and 20.5% had only occasional pain. The clinical results were the same in both groups. The rate of complications and revisions was significantly reduced in the FE group. The FE techniques brought advantages in the following areas: operation, complications, traumatization, and rehabilitation.

CONCLUSIONS: The clinical results of the FE interlaminar technique are equal to those of the microsurgical technique. At the same time, there are advantages in the operation technique, such as reduced traumatization. The FE interlaminar spinal decompression procedure is a sufficient and safe supplement and alternative to microsurgical procedures.