L4-L5 lumbar disc herniation

- An intensive non-invasive protocol combining non-surgical spinal decompression and supportive physiotherapeutic modalities in the treatment of double-level disc herniation at L4-L5 and L5-S1: A case report
- Lumbar disc herniation modelling: a review of ex-vivo mechanical models and a comparison with clinical data
- The "horizon grey band" represents normal nucleus pulposus cells condense rather than intervertebral disc degeneration signal
- Biomechanical effects of upper articular process resection proportion on lumbar after transforaminal endoscopic spine system surgery
- Pediatric lumbar disc herniation: A systematic review of the state of management strategies and outcomes (2010-2024)
- A nerve root decompression position identified by 3D CT scan: the modified reversed contralateral axial rotation position for patients with lumbar disc prolapse
- Transforaminal Epidural Steroid Injection in Lumbar Disc Prolapse: Impact on Pain Intensity and Cognitive Function in Relation to MicroRNA-155 Serum Level
- Ultrasound-Computed Tomography Fusion-Guided Lumbar Plexus Block Treatment After Spinal Fixation: A Case Report

A retrospective study was performed on patients with L4/5 lumbar disc herniation treated using Microendoscopic Discectomy MED (n = 249) or FED (n = 124). A 16-mm tubular retractor and endoscope was used for MED, while a 4.1-mm working channel endoscope was used for Full-Endoscopic Discectomy (FED). Patient background and operative data were collected. The Oswestry Disability Index (ODI) and European Quality of Life-5 Dimensions (EQ-5D) scores were recorded preoperatively and at 1 and 2 years postsurgery.

The background data of the two groups were similar. The mean operation times for MED and FED were 59.3 and 47.7 min (respectively), and the mean volumes of removed nucleus pulposus were .65 and 1.03 g, respectively. These differences were significant ($P < .001$). Six dural tears and one postoperative hematoma were observed in the MED group; none were observed in the FED group. During the follow-up period, 16 MED and 7 FED patients required re-operation due to recurrence ($P = 1.00$). Although the ODI and EQ-5D scores significantly improved at 1 and 2 years postsurgery in both groups, the differences were not statistically significant.

Operative outcomes were almost identical in both groups. We did not observe any operative or postoperative complications in FED. We, therefore, recommend FED as the first option for the treatment of L4/5 LDH since it has a better safety profile and is minimally invasive [1].

1)
Fujita M, Inui T, Oshima Y, Iwai H, Inanami H, Koga H. Comparison of the Outcomes of Microendoscopic Discectomy Versus Full-Endoscopic Discectomy for the Treatment of L4/5 Lumbar Disc Herniation. Global Spine J. 2022 Sep 22:21925682221127997. doi: 10.1177/21925682221127997. Epub ahead of print. PMID: 36134544.