

Introduction

Interlaminar percutaneous endoscopic lumbar discectomy (PELD) is a minimal invasive spinal technique to treat soft disc herniation. Currently, it is known that the single working channel does not allow for bimanual dissection and retraction of the nerves to protect them from injury during the dissection. The purpose of this study was to describe the rotate-and-retract technique for an interlaminar PELD approach to effectively retract neural structures and remove soft disc herniations.

Methods

A retrospective evaluation of 17 patients who underwent operation with the described technique between November 2016 and August 2017 was performed. We assessed clinical outcomes by using the visual analog scale (VAS) for back and leg pains and the Oswestry disability index (ODI) preoperatively at their respective clinical visits and postoperatively at the patients' final follow-up examinations.

Results

The mean preoperative VAS scores for back and leg pains were 3.84(range, 2–6) and 8.7(range, 8–10), respectively. The mean preoperative ODI was 64.2(range, 48–90). The mean VAS scores for back and leg pains decreased to 1.24(range, 0–6) and 1.15(range, 0–4), respectively, at the last follow-up (p< 0.001). The mean ODI also improved to 13.2 (range, 9–29) at the last follow-up (p< 0.001).

Conclusions

The rotate and retract technique for interlaminar PELD is an effective maneuver for the treatment of L5-S1 disc herniations in selected patients if performed by experienced surgeons

Learning Objectives

By the conclusion of this session, participants should be able to safely retract neural structures with rotation of beveled working channel.





A. The bevel of the working channel is placed lateral from the midline to protect the dural sac. The axillary herniated disc is removed.

B. The bevel is rotated to the medial side. The dural sac is pushed away and retracted. The herniated disc and S1 root are well exposed.

C. After removal of the exposed herniated disc, the working channel is tilted and dural sac is retracted to confirm the residual disc underneath.

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