Clinical: Lumbar Non-Fusion (i.e. MIS discectomy, percutaneous discectomy)

110

Percutaneous Posterolateral Transforminal Endoscopic Discectomy: Clinical Outcome, Complications and Learning Curve Evaluation

S.A. Tenenbaum1, H. Arzi1, A. Herman1, A. Friedlander1, M. Levinkopf1, I. Caspi1

1Tel Hashomer, Orthopedic Surgery, Ramat Gan, Israel

Background: Surgery for herniated lumbar disc is intended to provide relief of pain and disability. The technological development combined with better understanding of endoscopic anatomy has made endoscopic discectomy an appealing surgical option. Our goal was to retrospectively evaluate clinical outcome, complications rate and learning curve with percutaneous posterolateral transforminal endoscopic discectomy.

Methods: Transforminal endoscopic discectomy was performed from 2004 to 2008 in 150 patients. 124 patients were available for follow up. Demographic data, pain evaluation by VAS, Oswestry Disability Index, postoperative complications, neurological status, operation time and subjective patient satisfaction were recorded for each patient.

Results: Satisfactory clinical outcome as reflected in the VAS (mean 3.6) and ODI (mean 21%) scores is reported. 26 patients required additional surgery because of continuing symptoms. In the assessment of surgical learning curve, we found a statistically significant difference (p value 0.043) for fewer revision surgeries as the surgeons became more experienced.

Thirty patients (24%) had at least one previous back surgery prior to the index endoscopic discectomy. Patients that had endoscopic discectomy as a primary surgery achieved significantly lower VAS (p value 0.04) and ODI (p value 0.004) scores in comparison to patients having endoscopic discectomy as a revision surgery.

The combined complication rate in this patient series was 1.6%.

Conclusions: Based on our results and experience, transforminal endoscopic discectomy technique has a satisfactory clinical outcome with a low total complication rate.

We acknowledge the steep learning curve of this technique, which can be overcome with training and suitable patient selection.