

# Reoperations after Minimally Invasive Lumbar Spine Surgery Because of Recurrent Disc Herniation:

Prospective Study

Yunus Aydin; Halit Çavusoglu MD; Okan Kahyaoglu Neurosurgery Clinic, Acibadem Fulya Hospital, Istanbul - TURKEY



#### Introduction

We have conducted a prospective study to review new or recurrence rate of disc herniation and compare the initial chief complaint, neurological status and outcome of patients who underwent minimally invasive lumbar spine surgery.

### **Methods**

In this study, 914 patients (group 1) with 1012 levels of lumbar disc herniation underwent microdiskectomy and 1063 patients (group 2) with 2588 levels of degenerative lumbar spinal stenosis (LSS) with 228 levels of disc herniation underwent bilateral decompression via a unilateral approach and microdiskectomy in their first operation. Clinical outcomes were assessed using the Oswestry Disability Index and Short Form—36.

#### Results

In group 1, 35 (3.8%) patients with 46 (4.5%) levels disc herniation were underwent reoperation. 29 (0.8%) of them were recurrent disc herniation. In group 2, 13 (1.2%) patients with 14 (0.5%) levels disc herniation were underwent reoperation. 9 (0.8%) of them were recurrent disc herniation. Mean recurrence time was 19 months (range 1 – 54 months). Mean age were 39.4 year in group 1 and 61,8 years in group 2. Surgery outcomes generally have been good. No postoperative instability developed requiring instrumentation assisted secondary fusion.

#### **Conclusions**

As expected, in the elderly group were less likely to recurrence. For this group less mobile and/or fixed spine advantages, disadvantages of fragility should be. In the other hand, for degenerative compressive lumbar spinal lesions minimally invasive spine surgery with low recurrence rate resulted in a highly significant reduction of symptoms and disability, and improved health-related quality of life.

## **Learning Objectives**

We think that in patients with spondylotic process, osteophytes with thickening of the ligaments result in decreased mobility of the spine as aging occurs, with natural fusion occurring between vertebral bodies by the osteophytes. The addition of instrumentation and bone graft to this natural process does not give any added advantage. Also, in young patients with soft disc protrusions, the supporting ligaments are sufficiently strong to prevent subsequent instability

#### References

- 1. Müslüman AM, Cansever T, Yilmaz A, Çavusoglu H, Yüce I, Aydin Y. Midterm outcome after a microsurgical unilateral approach for bilateral decompression of lumbar degenerative spondylolisthesis. J Neurosurg Spine. 2012 Jan;16(1):68-76.
- 2. Aydin Y, Çavusoglu H. Spinal stenosis. J Neurosurg Spine. 2008 Aug;9(2):231-3;author reply 233.
- 3. Çavusoglu H, Kaya RA, Türkmenoglu ON, Tuncer C, Colak I, Aydin Y. Midterm outcome after unilateral approach for bilateral decompression of lumbar spinal stenosis: 5-year prospective study. Eur Spine J. 2007 Dec;16(12):2133-42. Epub 2007 Aug 22.





