Efficacy of Lumbar Fusion in Young Patients with Degenerative Spondylolisthesis

The number of young patients with degenerative spondylolisthesis (DS) is expected to increase, and surgical treatment with transforminal lumbar interbody fusion (TLIF) is likely to rise as a result.

Single-center retrospective study

Patients younger than 50 years undergoing lumbar fusion (n = 96)

Minimum 2-year follow up

Complete clinical and radiological data available (86%; n = 83)

Enough data to assess complications and radiographic fusion (97%; n = 93)

MCID achieved for:

- Leg pain (n = 68) → 82%
- Back pain (n = 62) → 75%
- SF-36 physical component (n = 59) → 71%
- Oswetry Disability Index (n = 72) → 87%

Perioperative complications (2.4%; n = 2)

Reoperations for implant-related complications (2.4%; n = 2)

Stable fusion (Bridwell Grade 1 or 2 fusion) (n = 79) → 85%

Adjacent segment degeneration (n = 7) → 8%

Revision surgery (1.1%; n = 1)

At a minimum of 2 years post-TLIF for DS, what proportion of patients:

- achieved minimum clinically important difference (MCID) in improvement?
- developed complication or underwent reoperations?
- achieved radiographic fusion?
- developed adjacent-segment degeneration?

After undergoing TLIF, well selected patients under the age of 50 with symptomatic degenerative spondylolisthesis often, but do not always, experience clinically meaningful improvements in pain relief and function.

What Are the Patient-Reported Outcomes, Complications, and Radiographic Results of Lumbar Fusion for Degenerative Spondylolisthesis in Patients Younger Than 50 Years?
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