SP 18
LONG-TERM PATIENT-ORIENTED OUTCOME AFTER TRANSLAMINAR SCREW FIXATION OF THE LUMBAR SPINE

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Introduction: Translaminar screw fixation represents an alternative operative technique to transpedicular fixation systems for short segment lumbar fusion. The method has been in use for more than 20 years, but few studies reporting the long-term outcome are to be found in the literature. This study sought to evaluate the long-term results after translaminar screw fixation of the lumbar spine in a large group of patients and to identify predictors of a good outcome.
Methods: The Core Outcome Measures Index, a multidimensional outcome questionnaire, was sent to 646 consecutive patients who had undergone lumbar fusion with translaminar screws between 1987 and 2004, for various degenerative conditions of the lumbar spine. Patients also rated the global outcome and their satisfaction with treatment. Disc height was measured from preoperative radiographs using the distortion compensated roentgen analysis (DCRA) method. Multiple logistic regression analysis was used to identify factors associated with a good outcome.
Results: 479 patients (74%) completed and returned the questionnaire. The average follow-up period was 10 years (range 2–20 years). 354/479 patients (74%) reported that the operation had either "helped a lot" or "helped" (=good outcome); 125/479 patients (26%) declared that it "helped only little", "didn't help" or "made things worse" (=poor outcome). Controlling for potential confounders, a preoperative disc height <80% of that reported for a normal population was the most significant unique predictor of a good outcome (OR = 15.11, CI 95% 7.18–31.78, $P < 0.0001$).
Discussion: Translaminar screw fixation is a straightforward and effective technique for short segment fusion in the lumbar spine. For patients with a strict indication for spondylodesis, intact posterior elements (lamina and facets) and a low preoperative disc height, translaminar screw fixation represents a very successful fixation technique in the lumbar spine with good long-term results.

SP 19
PATIENTS WITH DISC HERNIA AND/OR RADICULOPATHY HAVE SIMILAR PAIN ALLEVIATION AFTER LUMBAR TOTAL DISC REPLACEMENT THAN THOSE WITH THE CLASSIC INDICATION

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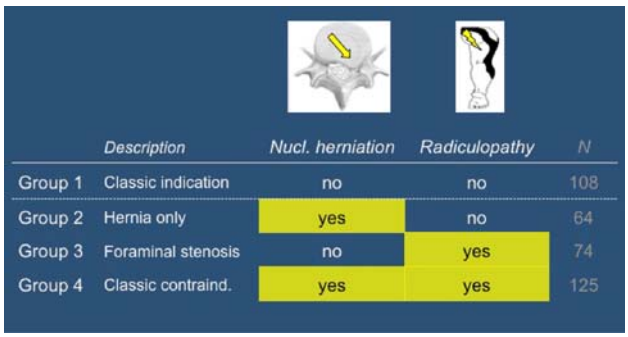
Introduction: Currently, herniated nucleus pulposus (NP) with radiculopathy and central or lateral recess stenosis are regarded as contraindications for lumbar disc arthroplasty. In the present study, we used a dataset generated by a mandatory Swiss health technology assessment (HTA) register (SWISSspine) to investigate whether there is an association between preoperative variables (status of NP and sciatica) and clinical outcome in patients treated with lumbar TDR.
Methods: Between March 2005 and 2008 497 interventions with implantation of 623 lumbar total discs have been documented in a prospective observational multicenter mode. We focused on the 371 monosegmental surgeries. The data collection included perioperative data and clinical outcomes based on the NASS questionnaire, EQ-5D and VAS. The patients were divided into four groups: Group I—108 (29.1%) patients without herniated NP and no sciatica (classic indication) Group II—64 (17.3%) patients with herniated NP without neural compression; Group III—74 (19.9%) patients without herniated NP but with sciatica (recess stenosis), and Group IV—125 (33.7%) patients with herniated NP with neural compression.
The groups were compared regarding postoperative VAS, EQ-5D and NASS scores using ANOVA-test with Boferroni–Holm adjustment (Alpha = 0.05).
Results: The four groups had well comparable demographic characteristics. Statistical analyses showed significantly different leg pain levels between the groups preoperative. Regarding pain alleviation and postoperative quality of life, however, there were no differences anymore.
Conclusion: Despite preoperatively higher leg pain levels, patients with herniated NP combined with neural compression and patients with stenosis of recesses have similar outcomes as patients with the classic indication. Therefore, these diagnoses may not have to be considered as absolute contraindications for TDR anymore. The results of this multicenter observational study need to be verified in a controlled or experimental study design.



	Description	Nucl. herniation	Radiculopathy	N
Group 1	Classic indication	no	no	108
Group 2	Hernia only	yes	no	64
Group 3	Foraminal stenosis	no	yes	74
Group 4	Classic contraind.	yes	yes	125