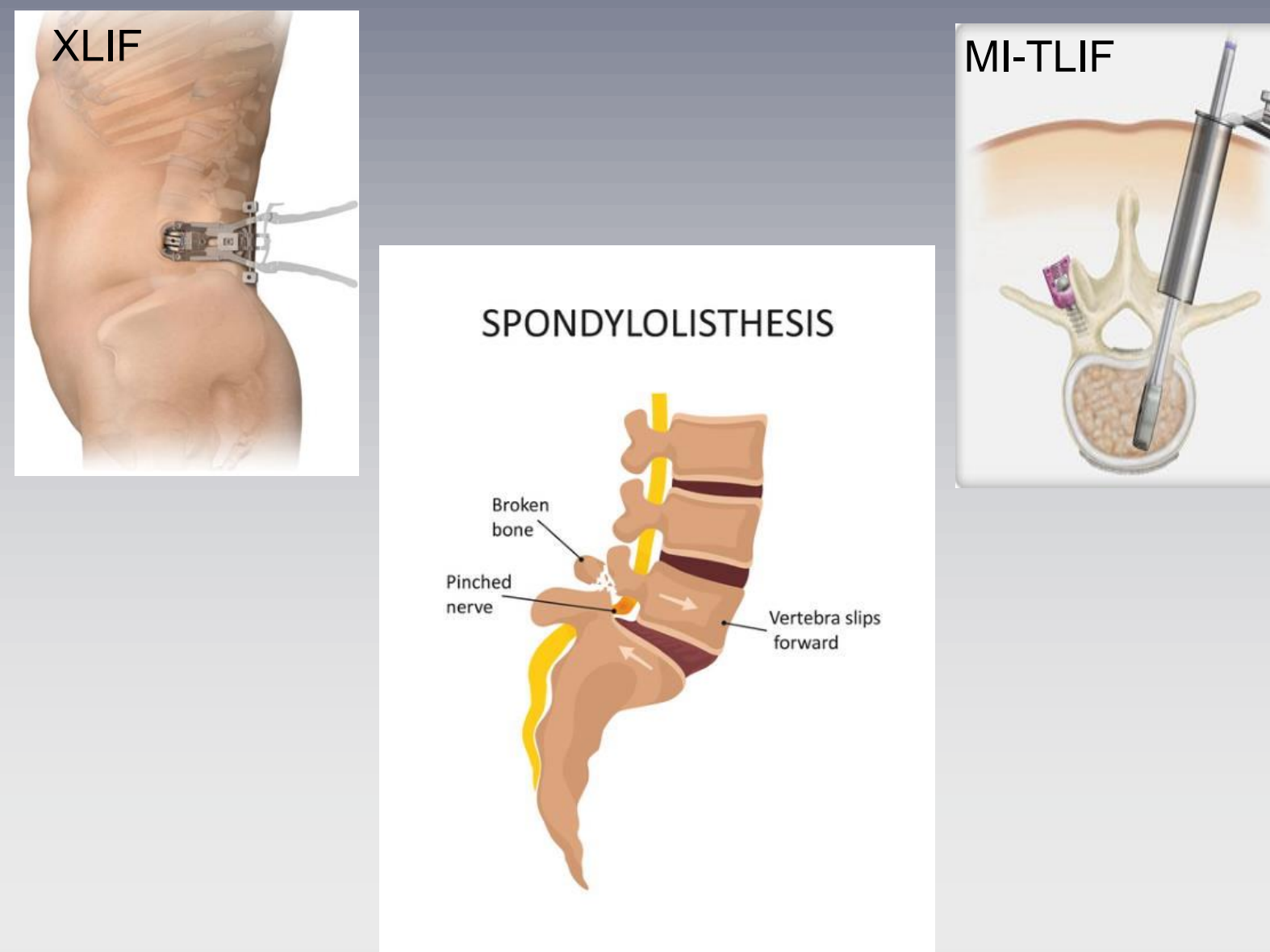


Introduction

- Minimally invasive transforaminal lumbar interbody fusion (MI-TLIF) and extreme lateral interbody fusion (XLIF) have been progressively utilized by spinal surgeons in the treatment of degenerative spondylolisthesis (DS).
- Challenges in surgical decision-making have emerged due to a paucity of studies comparing the effectiveness of these approaches.
- Purpose: To compare MI-TLIF versus XLIF in the treatment of low-grade degenerative spondylolisthesis.



Results

- A total of 65 patients were included, 34 XLIF and 31 MI-TLIF.
- Revision rates were 12.9% and 5.9% for the MI-TLIF and XLIF groups, respectively ($p= 0.329$) (Table 1).
- Cause for revision did not differ significantly between groups (Table 1).
- Both cohorts experienced significant improvements in their functional outcome scores compared to their pre-operative values (Table 2).

Methods

- A retrospective review was performed to identify patients between 2009-2014 who underwent MI-TLIF or XLIF for low-grade DS with a minimum of 5-year follow-up.
- Demographic data was recorded and compared between both groups.
- Reoperation rates were compared between groups.
- Functional clinical outcomes were assessed by comparing pre- and post-operative VAS back and ODI scores.

Table 1. Comparison of Revisions and Complications

	MI-TLIF	XLIF	p-value
Total Reoperations (%)	4 (12.9)	2 (5.9)	0.329
TTR (days)	366.1	409.9	0.112
ASD	2	1	0.989
Pseudarthrosis	1	1	1.000
Infection	1	-	0.083

ASD= Adjacent Segment Disease; TTR= Time to Revision

Table 2. Functional Outcome Score Improvement

	MI-TLIF	XLIF	p-value
VAS Change	4.9 (1.1)	5.2 (1.3)	0.322
ODI Change	26.3 (6.2)	27.1 (7.0)	0.629

Conclusions

- Five-year follow-up results suggest that XLIF and MI-TLIF are both reasonable minimally invasive alternatives for the treatment of low-grade degenerative spondylolisthesis.
- Both procedures demonstrated similar revision rates and improvements in functional outcome scores, and offer advantages of decreased hospital length of stay, blood loss, and quicker return to work.

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Title: Comparing Long-Term Outcomes Between MI-TLIF and XLIF in the Treatment of Low-Grade Degenerative Spondylolisthesis

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