EXPANDABLE TECHNOLOGY™

CLINICAL STUDY SUMMARY

Adjustable Lordotic Expandable Spacers: How Do They Compare to Traditional Static Spacers in Lateral Lumbar Interbody Fusion?

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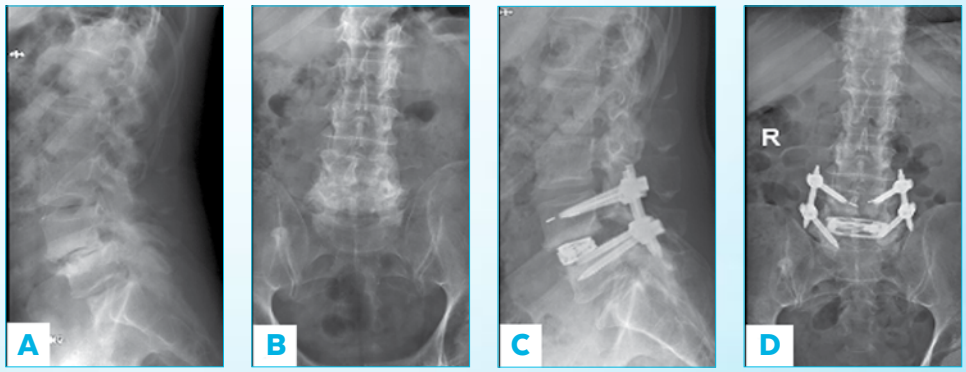
OBJECTIVE: The aim of this study was to compare the clinical and radiographic two-year outcomes between patients treated with static or RISE®-L expandable lateral interbody spacers with adjustable lordosis for minimally invasive lateral lumbar interbody fusion (MIS LLIF).

METHOD: A retrospective, multi-site, multi-surgeon, Institutional Review Board-exempt chart review of patients who underwent MIS LLIF using either a static (27 patients) or RISE®-L expandable lateral interbody spacer with adjustable lordosis (66 patients). Radiographs, complications, and patient-reported outcomes were collected and compared from preoperative up to 24-month postoperative follow-up.

RISE®-L
Expandable Lateral Interbody Spacer

One-Level MIS LLIF Radiographs at L4-L5

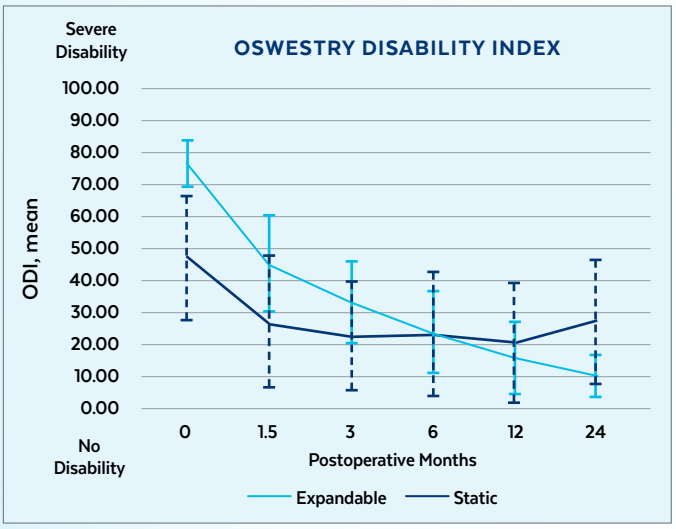


Lateral
preoperative (A) and postoperative (C)

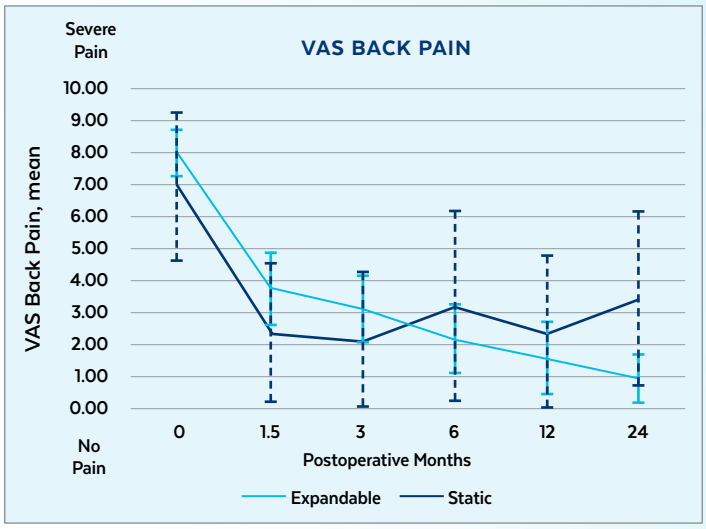
Anteroposterior
preoperative (B) and postoperative (D)

RESULTS:

- Mean improvement of Oswestry Disability Index (ODI) scores from preoperative to 3, 6, 12, and 24 months was significantly greater in the RISE®-L group, by 55.6%, 75.6%, 77.4%, and 108.9% as compared to the static group ($p<0.05$).
- Mean postoperative improvement of Visual Analog Scale (VAS) pain scores was by 48.2%, 34.6%, and 71.5% at 6, 12, and 24 months in the RISE®-L group as compared to the static group ($p<0.05$).
- Implant subsidence was significantly greater in the static group (18.5%, 5/27 patients) compared to the RISE®-L group (0/66 patients) (all $p<0.05$).



Results showed a significant decrease in ODI scores from baseline and sustained at 6 weeks and 3, 6, 12, and 24 months for the RISE®-L group.



Results showed a significant decrease in VAS back and leg pain scores from baseline and sustained at 6 weeks and 3, 6, 12, and 24 months for the RISE®-L group.

CONCLUSION: In this study, patients who underwent MIS LLIF with RISE®-L expandable lateral interbody spacers with adjustable lordosis showed significant improvement in VAS pain and ODI scores at 24-month follow-up compared to the PEEK static group. There was no subsidence in the RISE®-L group at 24-month follow-up.

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