

CLINICAL STUDY SUMMARY

A Radiographic Analysis of the Use of Banana-Shaped Articulating Interbody Spacers in Lumbar Spine Fusion: Retrospective Design

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OBJECTIVE: This study examined patients treated with the ALTERA® Articulating Expandable TLIF Spacer designed to address the limitations of the MIS TLIF procedure.

METHOD: A retrospective chart review of clinical and radiographic data was performed on a cohort of 46 patients at a single site. Radiographs were measured to determine preoperative and postoperative disc height, neuroforaminal height, intervertebral angle (IVA), and lumbar lordosis.



Lateral Lumbar Radiographs



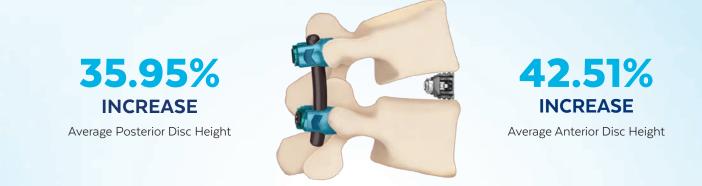
Preoperative



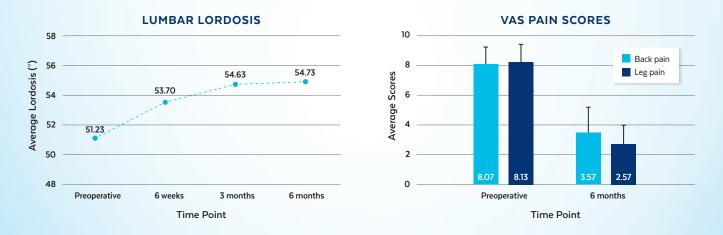
6-month follow-up



Radiographic outcomes demonstrated the following improvements at 6-month follow-up:



- Anterior disc height increased significantly (P < 00.01) from 9.95 ± 3.39mm preoperatively to 14.18 ± 2.46mm at 6-month follow-up.
- Posterior disc height increased significantly (P < 0.001) from 5.73 ± 2.19mm preoperatively to 7.79 ± 2.89mm at 6-month follow-up.
- Lumbar lordosis increased significantly (P < 0.001) from 51.23 ± 16.12° preoperatively to 54.73 ± 14.27° at 6-month follow-up.
- Visual Analog Score (VAS) back pain scores decreased significantly (P < 0.001) from 8.07 ± 1.11 preoperatively to 3.57 ± 1.55 at 6-month follow-up.
- VAS leg pain scores decreased significantly (P < 0.001) from 8.13 ± 1.22 preoperatively to 2.57 ± 1.43 at 6-month follow-up.
- There were no intraoperative or postoperative complications.



CONCLUSION: This study supported the use of the ALTERA® Articulating Expandable TLIF Spacer through an MIS TLIF approach for lordosis correction. When placed anteriorly, the ALTERA® Articulating Expandable TLIF Spacer allowed for increased lordosis within the segment and improved sagittal balance parameters, intervertebral disc height, and pain scores.



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