

Spine Treatment Appraisal Report (STAR): Patient-Reported Outcomes Following Short-Segment Lumbar Fusion: Does Pelvic Incidence and Lumbar Lordosis (PI-LL) Mismatch Matter?

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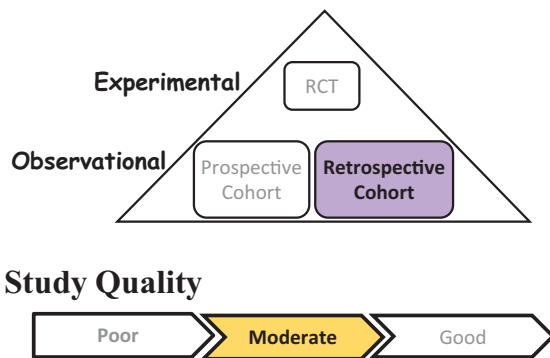
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Divi SN, Kepler CK, Hilibrand AS, et al. Patient Outcomes Following Short-segment Lumbar Fusion Are Not Affected by PI-LL Mismatch. *Clin Spine Surg.* Mar 1 2021;34(2):73-77.

Keywords

lumbar fusion, patient-reported outcome measurements (PROMs), degenerative disease, pelvic incidence-lumbar lordosis (PI-LL), spinopelvic mismatch

Study Type



Overall Risk of Bias Rating (QUIPS)



Study participation	☆☆☆
Study attrition	☆☆☆
Prognostic factor measurement	☆☆☆
Outcome measurement	☆☆☆
Study confounding	☆☆☆
Statistical analysis and reporting	☆☆☆

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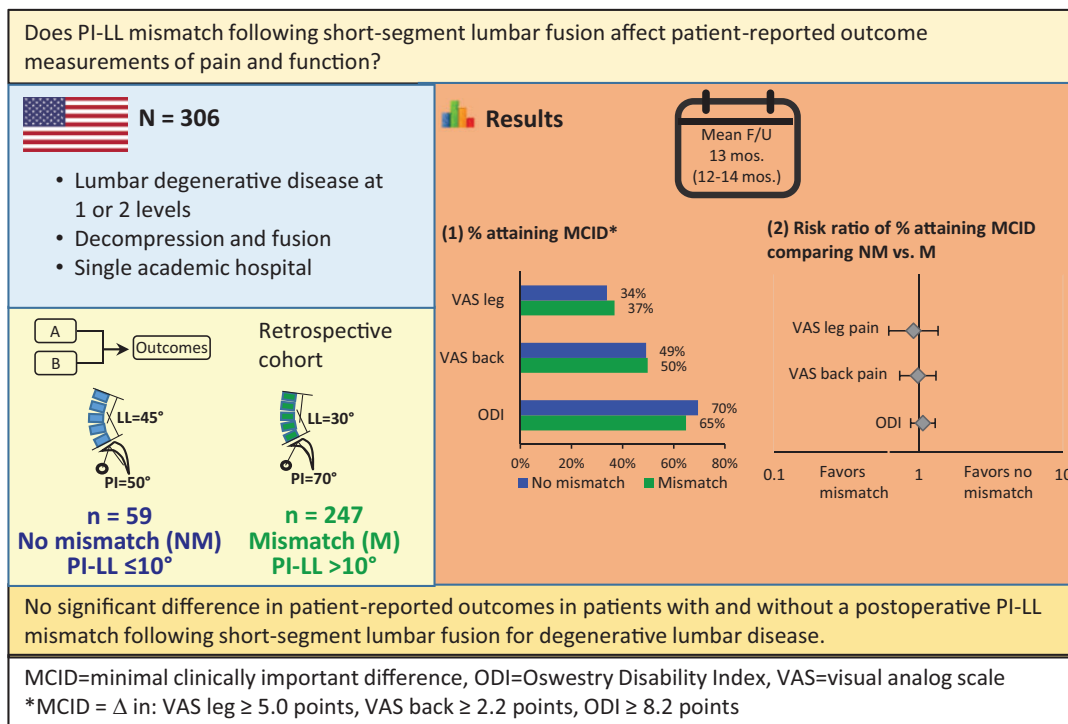
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Visual Abstract



Why Is This Study An Important Topic?

Given the rising number of elective lumbar fusions, the effect of maintaining appropriate spinopelvic parameters on patient-reported outcomes is of increasing clinical interest. There are few studies examining the relationship between spinopelvic parameters and patient outcomes in short-segment lumbar fusion for degenerative disease.

What Was the Primary Clinical Question?

Does PI-LL mismatch following short-segment lumbar fusion affect patient-reported outcome measurements of pain and function?

Study Characteristics

Population:

Male (54%) and female (46%) adults, mean age 62 years (range 59 to 65) with symptomatic lumbar degenerative disease at 1 or 2 levels.

Excluded:

Pediatric patients, recreational or nonprofessional athletes

Treatment:

Decompression and short-segment lumbar fusion

Prognostic factor:

Postoperative mismatch between pelvic incidence (PI) and lumbar lordosis (LL)

Outcomes:

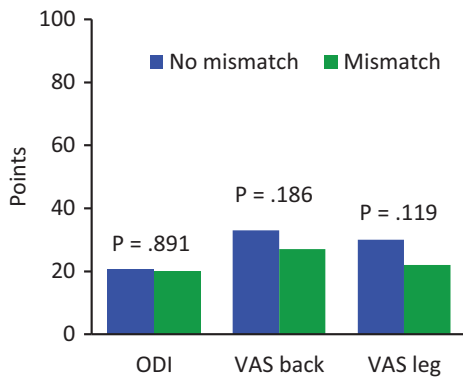
Proportion of patients achieving minimal clinically important difference for pain (leg and back) and function (ODI)

Time:

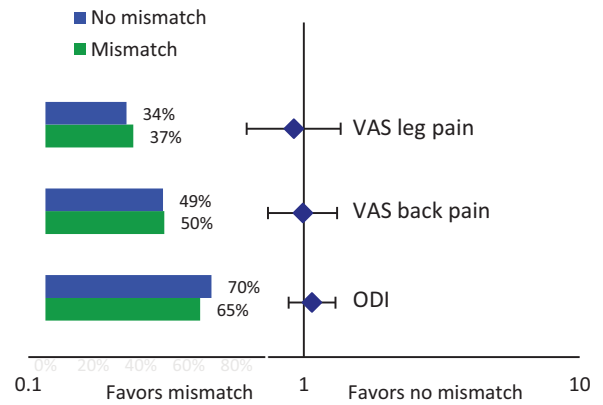
Mean follow-up 13 months (range 12-14)

Results

Result 1. Pain and function between PI-LL mismatch groups at 1 year follow-up.



Result 2. % MCID and Risk Ratios (95% CI)



How Will This Affect the Care of my Patients?

This study suggests that patient-reported outcomes in short-segment lumbar fusion for degenerative lumbar disease are similar in patients with and without a postoperative PI-LL mismatch.