

Contrasting results in sacroiliac joint fusion studies: the role of bilateral complaints

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Randers et al. conducted a double-blind randomized sham surgery-controlled trial to assess the effectiveness of sacroiliac joint fusion (SIJF).¹ In their study, 72% of the patients in the surgery group and 65% in the sham group had bilateral complaints. This contrasts with the European RCT where only 35% of surgery group patients had bilateral complaints.² Notably, the European RCT reported 39% of surgery group patients with bilateral complaints underwent bilateral SIJF. These differences might explain the contradictory results. Moreover, patients may be able to accurately describe the dominant painful sacroiliac joint (SIJ) preoperatively, though due to the proximity of the dorsal ligaments, it raises doubts about their ability to differentiate pain between the operated and contralateral side. Therefore, it would be interesting to see whether patients who had unilateral SIJ pain respond differently compared to patients with bilateral SIJ pain who also received unilateral SIJF. Unfortunately, we cannot find this distinction in the results for both the primary and secondary outcomes.

Based on the currently presented results with means and confidence interval of the mean, it is impossible to identify whether there are individual patients who

experienced a substantial decrease in pain. It would be of additive value to provide these numbers. Furthermore, the paper and supplementary data do not provide more quantifiable outcomes, such as the pre- and postoperative clinical provocative tests on the operated side.

We genuinely hope the authors will reply to our remarks. We are looking forward to the crossover results and follow up studies.

Contributors

NK: conceptualisation, literature search, writing-original draft, review and editing. FS, MBK, JN: literature search, writing-review and editing. All authors approved the submitted version.

Declaration of interests

All authors have no financial disclosures regarding this letter.

References

- 1 Randers EM, Gerdhem P, Stuge B, et al. The effect of minimally invasive sacroiliac joint fusion compared to sham operation: a double-blind randomized placebo-controlled trial. *eClinicalMedicine*. 2024;68:102438. <https://doi.org/10.1016/j.eclinm.2024.102438>.
- 2 Stureson B, Kools D, Pflugmacher R, Gasbarrini A, Prestamburgo D, Dengler J. Six-month outcomes from a randomized controlled trial of minimally invasive SI joint fusion with triangular titanium implants vs conservative management. *Eur Spine J*. 2017;26(3):708–719. <https://doi.org/10.1007/s00586-016-4599-9>.

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