

The Efficacy and Safety of Ultrasound-Guided Nerve Block in the Treatment of Cervical Spondylotic Radiculopathy: A Systematic Review and Meta-Analysis [Response to Letter]

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Dear editor

We thank Dr. Aishwarya Rai and Dr. Shaswat Kumar Chandan for their interest in our systematic review and meta-analysis, and for their thoughtful observations regarding our publication. We appreciate the opportunity to clarify the points raised and to address any ambiguities. Below we provide a point-by-point response to their comments.

Response to Comment: Data Inconsistencies & Logical Contradictions

We thank the reader for identifying this critical error. After re-examining the raw data from the primary studies (Liu 2020 and Kose 2024), we confirm the following. For the Physical Component Summary (PCS), Liu 2020 reported an increase of +5.75 in the intervention group and +1.88 in the control group (mean difference [MD] = +3.87), while Kose 2024 reported an MD of +1.41; the pooled MD was +3.50 (95% CI 1.26–5.75). For the Mental Component Summary (MCS), Liu 2020 showed an increase of +4.18 in the intervention group and +1.83 in the control group (MD = +2.35), whereas Kose 2024 reported +5.71 in the intervention group and +7.37 in the control group (MD = -1.66); the pooled MD was +2.22 (95% CI 0.79–3.64). All mean differences were calculated as intervention minus control; therefore, a positive value correctly indicates greater improvement in the ultrasound-guided group than in the control group. The confusion arose because the x-axis labels in Figures 7 and 8 were reversed: “Favors [intervention]” was placed on the left and “Favors [control]” on the right, causing the positive MDs to appear on the control side. Accordingly, we have revised the relevant text on pages 11–12 to clearly state that the intervention group showed significantly greater improvement in both PCS and MCS scores. All data have been rechecked and no further errors were identified. We confirm that the total of 1072 patients represents the final analytic sample after excluding 10 patients who were lost to follow-up or excluded for other reasons; the manual summation of sample sizes in Table 1 is consistent with this final number. We thank the reader for noting the inconsistency regarding the number of dropouts. The dropout number in the table should have been reported as 5 (as described in the footnote), rather than 3, which was a typographical error during table preparation and will be corrected. Regarding the study by Wang 2020, we agree with the reader that the original study did not report sex distribution; We only extracted the data that were available in the original publication.

Response to Comment: Methodological Transparency

We thank the reader for this valuable comment. In the original manuscript, we provided a summary GRADE assessment in Table 6. To further improve transparency, we now provide a detailed breakdown of the GRADE assessment for each outcome, including the specific reasons for downgrading. The overall response rate was rated as moderate quality due to serious risk of bias and serious inconsistency ($I^2 = 77\%$). Despite these limitations, the effect estimate was stable in sensitivity analysis, and the confidence interval was narrow, supporting a moderate rating. VAS and first-attempt success rate were rated as low quality due to serious risk of bias and serious inconsistency ($I^2 = 89\%$ and 74% , respectively). NDI and complications were rated as low quality primarily due to serious risk of bias, with no serious inconsistency. PCS and MCS were rated as low quality due to serious risk of bias and serious indirectness, as the SF-36 is a generic quality-of-life instrument that may not be optimally sensitive to detect domain-specific changes following a targeted nerve block intervention. These detailed assessments are consistent with the GRADE framework and have been added to the supplementary materials to enhance methodological transparency.

Response to Comment 3: Table & Figure Discrepancies

We thank the reader for identifying this error in Table 1. Upon verification, the mark “g” in the “Outcome Indicators” column for the studies by Zou 2021 and Wu 2018 was introduced erroneously during table preparation and should be deleted. Figures 3 through 8 are all presented in the main text: Figure 3 shows the forest plot for the overall response rate, Figure 4 for VAS, Figure 5 for NDI, Figure 6 for the first-attempt success rate, Figure 7 for PCS, and Figure 8 for MCS. All forest plots are clearly labeled in the main text. The “Figure 7” referred to by the reader corresponds to the forest plot for PCS, which appears correctly on page 11 of the original manuscript.

Response to Comment 4: Typographical & Formatting Errors

We thank the reader for noting this typographical error. The term “Visual Analgue Scale” in the original manuscript was a misspelling and has been corrected to “Visual Analogue Scale” in the revised version.

Conclusion

We are grateful to the readers for their meticulous review, which has allowed us to improve the accuracy and transparency of our article. The corrections and clarifications provided above address all the concerns raised. We trust that these revisions are satisfactory and hope that the updated manuscript will contribute to a clearer understanding of the role of ultrasound-guided nerve blocks in the treatment of cervical spondylotic radiculopathy.

Disclosure

The authors report no conflicts of interest in this communication.

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