

Peer Review File

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Reviewer A:

I would like to share my review of your article titled "Cervical Disc Arthroplasty vs ACDF – What are the outcomes?" and extend my appreciation for addressing such an important topic as the comparison of two surgical procedures in the treatment of cervical spondylosis.

The article provides valuable insights into the differences between anterior cervical discectomy and fusion (ACDF) and cervical disc arthroplasty (CDA) and their impact on clinical outcomes. However, I would like to highlight a few points that could help improve your work:

Comment 1. In-depth Literature Analysis: I suggest conducting a more comprehensive analysis of available sources and research findings to provide readers with a more thorough understanding of the issue. Introduce a critical assessment of research methodologies, sample sizes, and potential biases.

(make a table summarizing papers used in our review)

Response 1: Thank you reviewers for your comments. We added a table summarizing the papers used in our review. I was unable to expand the analysis with more papers due to the 25 references limit in an editorial.

Comment 2. Balanced Tone: The article seems somewhat biased in favor of CDA. Please ensure that you present both procedures objectively and in a balanced manner, considering both their advantages and disadvantages.

Response 2: Thank you reviewers for pointing this out. We made edits to limit the potential bias in our wording. We made efforts to emphasize both CDA and ACDF are viable surgical options.

Comment 3. In-text Citations: Add references within the text to support your statements and data. This will help readers verify the information provided.

Response 3: We confirmed that all information provided had the appropriate citation.

Mention of Future Research Directions: I also recommend adding a section that discusses potential areas for future research on this topic and unresolved issues in the field.

Your work constitutes a valuable contribution to the field of cervical spine surgery, but it can be even more valuable after considering these suggestions. Thank you for your effort and dedication to addressing this important issue.

Reviewer B:

The authors present a comparison between Cervical Disc Arthroplasty (CDA) and Anterior Cervical Discectomy and Fusion (ACDF) for treating cervical spondylosis. They briefly delve into the biomechanics, patient-reported outcomes, and long-term effectiveness of both procedures, highlighting the historical dominance of ACDF and the emerging promise of CDA. The conclusion presents a balanced view, suggesting that while CDA shows encouraging results in early-to-mid-term follow-ups, further research is needed for a definitive comparison. I would recommend a few changes constituting minor revision to improve the manuscript.

Comment 1. Introduction Enhancement: Clarify the objective of comparing CDA and outline specific aspects you will compare (e.g., complication rates, patient satisfaction, long-term outcomes).

Response 1: We added to the beginning outlining the structure of the paper and the comparisons that would be examined.

Comment 2. Methodology Detailing: Provide more details on the selection criteria for the studies included in your review. Explain how you ensured the quality and relevance of these studies (PRISM?), and if meta-analysis was used, describe the statistical methods in detail.

Response 2: Sorry to the reviewers for any confusion. This was submitted as an invitational editorial. There was no rigorous analysis of the literature such as the use of PRISM outlines.

Comment 3. Statistical Analysis: Expand the statistical analysis section. Include specific tests used, p-values, confidence intervals, and other relevant statistical measures to provide a clearer understanding of the data's significance. Perhaps consider including a forest plot for included studies and outcomes.

Response 3: Sorry to the reviewers for any confusion. This was submitted as an invitational editorial. There was no rigorous analysis of the literature such as the use of PRISM outlines. Additionally, we did not use any significant statistical analysis given the above.

Comment 4. Comparative Analysis Expansion: In the results section, provide a more detailed comparative analysis between CDA and ACDF. Highlight not just the outcomes, but also the differences in recovery times, costs, and any patient subgroup analyses if available.

Response 4: We added primary outcomes (PROs, radiographic, etc.) from recovery time and cost. There were no patient subgroup analyses.

Comment 5. Discussion on Long-Term Implications: Enhance the discussion on the long-term implications of both procedures. Discuss the implications for future research, potential changes in clinical practices, and how this might affect patient choice.

Visual Data Representation: I would also recommend including graphs or tables to visually represent the key findings, as mentioned above. Suggestions for tables could be outcome comparisons, complication rates, or patient satisfaction scores over time in CDA vs ACDF.

Response 5: A small section in the conclusion regarding future directions and outcomes has been added. Additionally, we added a table for all the papers included in the editorial