Reviewer’s report

Title: Factors related to subjective satisfaction following microendoscopic foraminotomy for cervical radiculopathy

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Reviewer: Karolina Wartolowska

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BMSD-D-17-00562

This is a research paper investigating demographic and clinical scores associated with subjective satisfaction following microendoscopic foraminotomy for cervical radiculopathy.

Authors reported improvement in all five outcome measures but knowing that there is high and sustained response in placebo arm of surgical trials with subjective outcomes (i.e. assessing patients' satisfaction, such as pain, function and quality of life) it may be a placebo response. As for associations between preoperative scores and satisfaction, only NDI scores were different in satisfied and dissatisfied patients and only NDI, upper extremity pain and EQ-5D were different in patients who express willingness to undergo the same surgery again. For post-operative scores, only upper extremity pain was associated with patients' satisfaction and none of the outcomes were associated with patients' willingness to undergo the procedure again.

I have two major criticisms. Firstly, authors have chosen five outcome measures (NDI, three pain scores and EQ-5D, tested at baseline and at follow-up, but did not correct the results for multiple comparisons. Accounting for multiple testing makes most of the results not significant. Secondly, the authors collected measures of satisfaction and willingness to undergo this procedure again on a 7-point ordinal scale. There is no mention of analysis of ordinal data in the "Statistical analysis" section and the ordinal data are not presented. Instead, the satisfaction and willingness to undergo the procedure are recoded into binary data arbitrarily classifying "0" as a negative score. This is not correct, the scores on the 7-point scale should be presented and analysed using ordinal regression.

Minor comments:

1. The reported number of patients included in the study changes throughout the manuscript: 42 in the Abstract, 43 in the Results section and again 42 in the tables.

2. The first paragraph of Discussion would fit better in the Background section

3. Differences in the scores mentioned in the second paragraph of Discussion should be in Table 3 and all the scores in this table should have standard deviations (if these are mean values)
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
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No

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I am able to assess the statistics

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