Author's response to reviews

**Title:** Anterior cervical discectomy and fusion may be more effective than anterior cervical corpectomy and fusion for the treatment of cervical spondylotic myelopathy

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**Author's response to reviews:** see over
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Version: 2 Date: 10 January 2015

Author's response to reviews: see over
Reviewer's report

Title: Anterior cervical discectomy and fusion may be more effective than anterior cervical corpectomy and fusion for the treatment of cervical spondylotic myelopathy

Version: 2 Date: 9 December 2014

Reviewer: Janez JR Ravnik

Reviewer's report:

Minor Essential Revisions

The manuscript describes metaanalysis comparing two anterior approaches to the cervical spine with spondylotic myelopathy. The analysis is well presented and the conclusion that are derived from it appear to be sound.

I would only have some minor comments and suggestions in the methods, results and discussion section.

1. In the methods section, I would suggest a table with all the studies listed, accompanied with the name of the first author, the name of the journal, number of patients, year of publication and the language in which the paper was written.

Response: Thank you for the suggestion. We have now provided the information in Table 1.

2. In the results section, a more elaborate qualitative description of the studies would be welcome. The authors should describe how many studies did exactly found a statistically significant difference between both methods.

Response: We have added a more elaborate qualitative description of the studies, and the specific numbers of studies have been added to show the statistically significant difference between both methods, “A total of ten studies compared the operative blood loss and operation time between ACDF and ACCF groups in CSM patients. The results indicate that CSM patients in the ACDF group showed significantly lower blood loss than patients in the ACCF group (SMD = 1.21, 95% CI = 1.03~1.39, P < 0.001). The operation time in ACDF was markedly shorter than ACCF
(SMD = 0.40, 95% CI = 0.23~0.57, P < 0.001). There were only four studies comparing the length of hospital stay of CSM patients who underwent ACDF and ACCF procedures, and CSM patients in the ACDF group had shorter hospital stays than patients in the ACCF group (SMD = 0.45, 95% CI = 0.21~0.69, P < 0.001). Interestingly, there was no significant difference between the two groups in fusion rates (four studies compared fusion rates), and between preoperative and postoperative JOA scores (compared in ten studies) (all P > 0.05) (Figure 2).”

3. In the discussion section, other types of surgical approaches to the cervical spine should be mentioned, especially posterior approaches (laminectomy with/without fusion, laminoplasty) and their role in cervical decompression compared to anterior approaches.

Response: Considering the Reviewer’s suggestion, we have mentioned other types of surgical approaches to the cervical spine in the Discussion section, “The different approaches for decompression surgery of the cervical spine include multilevel discectomy, corpectomy, laminectomy with/without fusion, laminoplasty, and laminectomy [26, 41]. Both anterior and posterior approaches achieve adequate decompression of the spinal cord to improve clinical outcomes in CSM patients [42, 43]. Anterior approach is more suitable when the pathology involves only 1 or 2 vertebral body levels, while the involvement of more than 2 levels usually requires a posterior approach [44]. Cervical lordosis can also be improved by both approaches, with the anterior approach achieving a relatively better overall correction due to its higher probability of achieving flexion and distraction [45].”

4. Altogether, the meta-analysis seems to be well designed, the methods are well described, and the results seem to be in accordance to the existing knowledge about surgical approaches to the cervical spine. It represents one of a few meta-analysis comparing two different anterior surgical approaches to the cervical spine and it gives a new insight this topic.

Response: Thank you for your kind comment.
Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I hereby declare that I do not have any competing interests related to this article
Reviewer's report

Title: Anterior cervical discectomy and fusion may be more effective than anterior cervical corpectomy and fusion for the treatment of cervical spondylotic myelopathy

Version: 2 Date: 11 November 2014

Reviewer: Mario Cabraja

Reviewer's report:

1. The authors provide a very well written Review article. Introduction, Methods section etc., everything is well, but unfortunately, many of the cited articles, are written in Chinese journals. Thus, it is hardly possible to assess the literature.

Response: We understand the challenges due to the language barrier in assessing the cited articles in Chinese journals. However, data from ten articles published in Chinese, we cited in this study, was ultimately also pooled for statistical analysis in our study, therefore, there is some level of data assurance in the cited work in Chinese. We have also included this as a significant limitation of our meta-analysis in the Discussion, “Finally, 10 of the 13 studies were from China, which might affect the reliability of our results and limit the application of our findings to wider populations”

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

No competing interests.