Reviewer's report

Title: Cervical spine kinematics after anterior cervical discectomy with or without implantation of a mobile cervical disc prosthesis; an RCT

Version: 2 Date: 15 November 2014

Reviewer: Huajiang Chen

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Major Compulsory Revisions:
1. The first objective of this RCT study is to ascertain whether a mobile cervical disc prosthesis restores/preserves normal motion when compared to healthy controls, in contrast to patients undergoing simple discectomy. Since the fusion rate of simple discectomy can be up to 80%, segmental range of motion (sROM) study of this group seem make no sense. And objective of this RCT study can not be achieved by this two group comparation. Experimental design needs to be reconsidered.

2. The second objective of this RCT study is to evaluate the clinical results of CDA compared to simple discectomy. However the sample size is ten per group which is obviously too small to obtain a credible conclusions. Sample size calculation should be more detailed in this article.

3. Statistical methods which is an indispensable part in study protocol have not mentioned in this article.

4. Both X axis Title and Y axis Title were not labeled in Figure 2. Figure legend is not detailed enough to express the meaning of Figure 2. Readers may have difficult to fully understand the meaning of this Figure.

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 declare that I have no competing interests.