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: 14 October 2014

Reviewer: Xijing He

Reviewer's report:

MAJOR REVISION
1. The primary outcome must be clear and unique. To ascertain whether a mobile cervical disc prosthesis restores/preserves normal motion can not be a primary outcome. Order of movement or segmental mobility is OK.
2. Data analysis didn’t mentioned in the manuscript.

MINOR REVISION
1. Inclusion criteria and exclusion criteria should be listed in the manufacture, unless the journal has special rules. Although readers can find them on clinicaltrials.gov.
2. Every figure should have numbers and illustrations under them.
3. The authors talked lots about adjacent segment degeneration which give readers a sense that they will do research on adjacent segment degeneration.

DISCRETIONARY REVISION
1. Flexion-extension radiograph is a classical method to mesure the ROM of cervical spine. Using a software to track the vertibrae automatically is creative and avoid a high intra- and inter- individual variability. But the mean center of rotation(MCR) and the instant center of rotation(ICR) of the cervical spine changed after surgery. The influence to the angles by the change of MCR and ICR should be concerned.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

None.