Reviewer's report

Title: Anterior cervical discectomy and fusion: Comparison of titanium and polyetheretherketone cages

Version: 1 Date: 25 July 2012

Reviewer: christian-andreas CA Mueller

Reviewer's report:

The questions posed by the authors are well defined and the methods are appropriate and in an appropriate manner described. The results are presented in an adequate. The discussion and the conclusions are well balanced and adequately supported by the data. The manuscript is well written.

However some questions arise:

1. The study population is inhomogeneous due to a pooling of patients with radicular and myelopathic disorders. This might influence the clinical outcome. The authors should remark this in the discussion.

2. Unfortunately the preclinical data are only rudimentary available and the only clinical outcome measurement in the manuscript is Odom’s criteria. This should state in the surgery and study design section.

3. The authors should discuss how far an additional plate-screw fixation could prevent the rate of subsidence after TTN or Peek cage implantation.

4. It would be interesting how far the fusion rate is influenced by filling the cages with bone substitutes. Are there some data based on the group of the 23 patients which was excluded from the analysis?

Overall the authors present a nice manuscript, and after a major revision this paper may be suitable for publication in BMC.

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'