

## Point-by-point responses to the recommendations and comments of the reviewers:

Thanks for your clear and valuable advice and for giving us the opportunity to revise this manuscript. We think that we were able to follow the recommendations of the reviewers as well as the editors.

We appreciate the time invested and comments provided by each reviewer. The manuscript has certainly benefited from these suggestions.

### Reviewers' comments:

#### Reviewer #1, ID 02706155

**Conclusion:** Accept (General priority)

**Scientific Quality:** Grade B (Very good)

**Language Quality:** Grade A (Priority publishing)

I appreciate the latest research about the novel design of Hip prosthesis and the surprising results. A lot of new concepts was offered from this manuscript. I suggest authors supplement detailed demographic data for the enrolled patients.

We are glad that the reviewer judges that our research is of practical interest and that he supports the publication of the manuscript. All demographic data that were documented in our series (sex, side, age, diagnosis) were reported in this article.

Is there any correlation between the patients' age/career/activity/BMI and loosening rate? A loosening was documented in only 2 of the 186 cases. Because of this minimal quantity, a statistical relevant correlation analysis tot he loosening rate was not feasible.

I wish 1 or 2 tables help readers to acquire more information about the prosthesis.

Done. A figure which includes a table with more information on the prosthesis has been added (Figure 2). Furthermore, more information on the prosthesis has been added to the Material and Methods section (page 7, lines 14-26).

#### Reviewer #2, ID 03065412

**Conclusion:** Minor revision

**Scientific Quality:** Grade B (Very good)

**Language Quality:** Grade B (Minor language polishing)

Overall, I think this study provides the reader with novel information regarding the long term survival and outcome of this prosthesis, and so justifies its publication. There are however a number of points, I feel should be addressed, prior to it being accepted:

We thank the reviewer for his/her support for the publication of the manuscript.

1) I would call this 'nine year' survival data - 'nine to ten years' sounds cumbersome  
The cumbersome wording of the running title has been changed as recommended.  
We choose the wording "Long-term results after MiniHip™"

2) The results section in the abstract should provide a more succinct summary of the results -  
e.g. the sentence 'Moreover, bony hypertrophies and/or bone appositions which might be  
indicative for a distal loading, were frequently noticed.' is too vague.  
Done. Thus, the results section within the abstract is now more concise. Moreover,  
the vague description of the bony hypertrophies etc. has been specified.

3) The analysis regarding 'outcome vs age' is not clear - this should be better described in the  
Methods and Results.  
As recommended, the analysis of predictors such as age, etc. has been explicitly  
described in the Methods and Results section.

4) Bilateral THRs have been coded as single procedures - 'A total of 186 consecutive hip joint  
arthroplasties (right/left/bilateral = 90/82/14) in 186 patients (m/f = 94/92)' - surely they  
should count as two procedures, or this is just presented confusingly.  
The description of the arthroplasty sides (right/left/bilateral) has been simplified as  
requested.

5) At times the language is confusing e.g. 'Other major complications, such as dislocations,  
periprosthetic fractures, a deep venous thrombosis and nerve injuries were not  
documented.' Does this mean they were not recorded, or they did not occur? This is  
obviously a substantial difference, but difficult to determine given the language used.  
The confusing terminology has been specified in the results section as recommended.

6) In the abstract, 'The clinical follow-up was accompanied by standardized p.a. and axial  
radiological examinations.' should be 'The clinical follow-up was accompanied by  
standardized a.p. and axial radiological examinations.'  
Thanks. Corrected.

7) In the results section, the sentences 'A small osteolysis of less than 2 mm outlined by a  
discrete sclerotic margin was detected in a large number of patients around the tip of the  
stem. This finding was only noticed in Gruen zones 3, 4, 5, 10, 11, 12 in 16, 47, 54, 36, 21 and  
31 cases, respectively.' are confusing. This would be better presented in a table.  
Thanks for this valuable suggestion which makes the presentation more clear. Data  
are now presented in a table (Table 1).

8) The Discussion is generally well written but is too long - this should be reduced to 3 pages  
maximum.  
The Discussion has been substantially shortened from 4 to 3 pages, as recommended.