Author’s response to reviews

Title: Bone mineral density after Implantation of a femoral neck hip prosthesis - a prospective 5 year follow-up.

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Honorable Reynaldo Aldea,
Dear editor,

We hereby present the revised manuscript “Bone mineral density after implantation of a femoral neck hip prosthesis – a prospective 5 year follow-up” according to the reviewers helpful recommendations. We would like to thank for their constructive assistance to get this work suitable for publication!

With resepect and kind regards!

Wolfram Steens

Regarding your recommendations:
1. Kindly include name of ethics committee
See line 153/154

List of abbreviation
See whole text: corrected

3. Acknoledgement performed

Regarding Samo Fokters recommendations:
Major Compulsory Revisions
Methods
Page 6, Line 143: Please provide a concise description of modular femoral neck
Discus the problems of fully modular stem design in THA later on in Discussion section.
See lines 137-147 and lines 223-231

Page 7, Lines 150: Who performed the surgery? A single surgeon at one institution or was this a multi-center study? Who performed postoperative evaluation – the surgeon who treated the patients or an unbiased examiner?
See line 148/149 and 155

Page 7, Lines 155-164: Long descriptions of HHS and WOMAC score should be deleted.
See lines 158-160

In the Results section you stated that all implants were stable on X-rays. How and when did you perform and evaluate X-ray analysis? Please give details.
See lines 198-204

Results and Discussion
Page 9, Line 205: Table 3 is very busy. Consider producing a graph instead.
As our study directly refers to an article previously published in this journal (doi: 10.1186/1471-2474-9-17) in 2008 we would like to present our data in the same way for a better understanding.
See line 249

Page 12, Line 294: The major drawback of this study is the non-randomized design. Please state this clearly and elaborate further in the Conclusion section.
See line 325/326

Minor Essential Revisions

Methods
Page 6, Line 136: Please give an exact name of the implant and follow it through the whole text (Cut or CUT?)
see whole text: corrected

Page 7, Line 151: Please correct wording (FoOne
See line 156
Regarding Miguel Farfans recommendations:
///No Major compulsory Revisions.///
/////Minor Essential Revisions:/// 

ABSTRACT
Paragraph 51: Clinical outcomes are secondary. You should mention first the changes in mineral bone density (primary outcome)
See Lines 50/51

Paragraph 64 "leads to a distinctive": From the beginning you should mention how different this bone reaction is. Does it increase or decrease?
See line 63/64

METHODS
Paragraph 151 And the 60 months follow up?
See line 155/156

Paragraph 151 Typing mistake: "One" instead of "FoOne"
See line 156

Paragraph 162 Is there a validated WOMAC scale in German?
See lines 160-163 and citation [19]

Paragraph 168 was the Densitometric measure technician blinded for the study?
See line 166/167

Paragraph 188 Was the statistical analysis done by someone blind to the study? if not, why not?
See line 185

RESULTS / DISCUSSION
Paragraph 217. You should use endpoint instead of period followed after "60 months after surgery" To separate results from Discussion.
See line 222

/////Discretionary Revisions///// 

BACKGROUND
Paragraph 106-109 "Conventional implants ... within the first 3 months": Is there any specific bibliographic reference for this sentence?
See line 108

METHODS
Paragraph 127: Were the patients included according to a protocol established before the beginning of the study? Was the inclusion consecutive? You should mention this.

See line 125

RESULTS AND DISCUSSION

Paragraph 188: Statistical analysis should mention tests for comparing categoric variables (maybe functional outcomes) like chi square and fisher exact test. The statistical analysis should specify which test would be used for comparing variables with a normal and a non normal distribution. In this case (t student for normal ones and Wilcoxon as non parametric one)

Use of chi square or fisher exact test is appropriate for statistical analysis of 2x2 tables, however in this study we work with more data in 3x2 tables. The Harris hip score behaves similar to the WOMAC in significance. Using the two-sided Student’s t-test for paired samples, a significant increase presents itself between the pre- and 12 months postoperative scores. Between 12 and 60 months there is no significant increase of the Harris hip score. As we have no non-parametric data Wilcoxon test is not suitable.

Paragraph 283 Are your referring to your study? If affirmative, I wouldn’t use the term "supports" considering the descriptive methodology of your study. Maybe "suggest" would be more appropriate.

See line 298

Paragraph 294. There are more limitations including the observational design of the study (not clinical trial, not randomized), if DEXA’s evaluation and statistical analysis were not blinded, there is another limitation and risk of bias in the study.

See lines 325/26 and 166 and 185

Paragraph 300. Your conclusions are too short. You should provide more information for the closure, including clinical outcomes (Secondary goal), How big the difference is (significance), what kind of patients should be considered for this type of short prosthesis ??

See lines 315-326

With kind regards!
Wolfram Steens