Author's response to reviews

Title: Revision in total hip arthroplasty using a ceramic revision head: Two year results of eight patients

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Author's response to reviews: see over
Author’s response to the reviewers

Title: Revision total hip arthroplasty using a ceramic revision head with a retained well-fixed femoral component: Two year results in eight patients

Version: 1 Date: 18 May 2014

Reviewer: Mohamed Ali Ahmed Mohamed
Reviewer`s report

Thank you for your efforts in reporting your patients with revision total hip arthroplasty using ceramic revision heads with a metallic sleeve and retained a well fixed stem. I am sorry to tell that there are some issues that decrease enthusiasm for publication of this manuscript as it is without revision.

To the Reviewers: Many thanks for your feedback, it has significantly improved the quality of the manuscript. Please note that our responses are in blue font below each comment.

GENERAL COMMENTS:

1. The use of English in the manuscript is suboptimal.
   We have employed the services of a native English speaker from a medical communications agency to improve the English. This has been mentioned in the Acknowledgements section of the manuscript.

2. The title (Revision in total hip arthroplasty using a ceramic revision head) did not present well the actual work which is (revision hip arthroplasty using a ceramic revision head with a retained well-fixed femoral component)
   The title has been revised accordingly.

3. The arrangement of the manuscript is strange with the methods at the end.
   The article has been structured according to the guidelines of journal. Please see the following link for details:
   http://www.jmedicalcasereports.com/authors/instructions/researcharticle#preparing-main-manuscript

4. It was difficult for me to determine the type of the study pro-or retrospective.
   It is indeed a prospective study. This information has been added to the Methods section of the manuscript.

Revisions necessary for publication:

1. In the Abstract section: -The first paragraph: (It is known that a well-fixed stem can be left in situ when only the acetabular component and femoral head have to be changed), Is this become a standard or it is still a controversy, or at the maximum, a recommendation of some researchers.
   This is a well-known procedure in revision surgeries [Hannouche et al., 2010; Poon et al., 1998; de Thomasson et al., 2012].

2. In the "Results" section:
   a. The first paragraph: (The mean follow-up period for the clinical and radiological examination was 26.7 months): -What this means? -No data about the follow up protocol. -The follow up extends more than 2 years for some patients, but, the reported results only present 2 years. Why not at the end of follow up?
      Patients were followed-up after approximately 2 years (exactly between 23.0 to 30.4 months; mean 26.7 months). A follow-up after exactly 24 months was not possible in all cases. Thus, some patients were followed-up after more than 24 months but we considered this still as 2 year follow-up.
   b. The third paragraph: (The values for pain improved) which values timing or severity?
      These values refer to severity. We have added the definition of the VAS in the Methods section.
   c. The fourth paragraph: The patient with mental problem is not a good candidate for evaluation by questionnaires, so, he need to be excluded from the start.
We agree, but due to the very small sample size this patient was not excluded. Harris Hip Score and complications were reported reliably, and only the VAS values should be treated with care. Furthermore, the scores were additionally calculated with this patient excluded and were also reported in the Results section.

d. The 6th paragraph: *(Neither an intraoperative nor a complication at the two year follow-up): grammatical error*

   Thank you for pointing this out; the sentence has been reformulated and now reads: “There were no instances of intraoperative complications or complications related to the ceramys® revision head at the two year follow-up examination.”

e. The authors reported no complications then they wrote (One patient had a decubital ulcer). Is this a complication or what?

   The previous sentence was reformulated to clarify that there were no intraoperative complications, or complications related to the ceramic head (please see the response to comment “2d” above).

3. In the "Discussion" section, the authors compared the results of their study to those of other studies and reported agreement with their results, despite the great difference in the number of cases, no statistical analysis or P values presented. The limited number of cases may represent a problem in this issue.

   Indeed, the sample size is very small. Studies on ceramic revision heads are rare, and so our results were compared to the only available reports that have been published using similar methods and materials. Due to the small sample size, it was not possible to calculate p-values. These study limitations have been added to the Discussion section.

4. In the "conclusion" section, the authors reported (Thus, a ceramic revision head is a very interesting option in a revision case. However, we reported short term results of a very small study group). This is a very powerful conclusion that may be not suitable to the great weakness they reported about the short term and the very small number of cases:

   The sample size is small but these preliminary results are promising, since there was a good clinical outcome after 2 years. No ceramic revision head-related problems and no second revisions were necessary. Thus, we think that ceramic revision heads are indeed an interesting option in a revision case with a well fixed-stem. We have conceded that these are short-term results in a small number of patients, and that longer-term follow-up data will be reported when they become available.

5. In the "Methods" section:

   a. It is not clear whether this study was carried on a pro-or retrospective basis.

      It is indeed a prospective study. This information has been added to the Methods section.

   b. The first paragraph: *(The patient demographics were poorly presented and I think that a small table can present it in a simpler way for the readers.)*

      Thank you for this suggestion. We agree, and have inserted a table displaying the patient demographics.

   c. The authors mentioned in the first sentence *(a revision surgery of a ceramic head was performed)* but, later they reported *(The reason for revision was a loosening of the cup in five patients)* So, the revision was not *(of the ceramic head).*

      These sentences have been revised for clarity. In these patients, the reason for initiating the revision was a loosening of the cup; however, revision of the cup also required a revision of the head.

6. No hint about the pre-operative evaluation especially for the criteria upon which the stem considered to be well fixed, the inclusion and exclusion criteria.
Thank you for pointing this out. We have added to the Methods section that the inclusion criteria were a revision of the head and cup, with a well-fixed stem. The stability of the stem was confirmed by the absence of any radiolucent lines around the stem and no stem migration between the X-ray after index surgery and the X-ray before revision surgery. In addition, the stability was evaluated intraoperatively. No specific exclusion criteria were defined.

7. The operations were done in 2 hospitals; Is there any operative protocol to be followed by the different surgical teams, and where the follow up was done and by whom.
   This is indeed an important point. We have added to the Methods section that the surgery was done according to in-house standards, and patients were followed-up by the surgeons in the corresponding clinic.

8. The authors spent most of the methods section to discuss the advantages of the used implants can be placed in the introduction or the discussion sections to not dissociate the authors and the readers about the main goal of the METHODS section for presentation of the patient demographics, evaluation systems, surgical techniques, and the follow up protocol.
   We have moved the relevant text to the Introduction section, and extensively revised the Methods section.
   a. The second paragraph: -the authors mentioned (After two years, a radiological and clinical follow-up) Is this the only follow up done.
      Patients were also followed-up after 6 and 12 months; however, only the results after 2 years were reported here. As mentioned previously, longer-term follow-up of these patients is planned in order to gather more clinically meaningful data.
   b. (the radiographs were checked for osteolysis and heterotopic ossifications) Is there any other data to be evaluated?, Is there any comparison done with the immediate post-operative radiograph?, and which evaluation system or criteria was used.
      These are valuable points, and indeed there is more information available regarding the X-ray analysis. We have added to the Methods section that the 2-year X-rays were compared with the first postoperative X-ray. In addition, radiolucent lines according to DeLee and Gruen were assessed. This was also added to the Methods.