Author's response to reviews

Title: Comparative effectiveness of two different interbody fusion methods for transforaminal lumbar interbody fusion: cage versus morselized impacted bone grafts

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Author's response to reviews: see over
Dear editor,

Thank you very much for your E-mail regarding our manuscript entitled “Comparative Effectiveness Using Two Different Interbody Fusion Methods for Transforaminal Lumbar Interbody Fusion: Cages Versus Merely Morselized Impacted Bone Graft”. First of all, we thank editors and reviewers for positive comments on our manuscript. We also appreciate very much for the reviewer’s comments. We are pleased to revise our manuscript based on the reviewers’ suggestions.

With this letter are submitting a revised version of our manuscript together with a point-to-point response to the reviewer’s comments on my manuscript. We hope the revised paper, revised as requested by you and the reviewer, will meet your expectation. The data contained in the manuscript have not been published or submitted or under consideration elsewhere. All authors have read this paper and approved the resubmission.

Responses to Reviewers:

Response to Reviewer Kevin Koo

1. Abbreviations should be clearly stated in full before its use i.e. "HR" in the abstract

Answer: We are so sorry it’s our fault to ignore some detailed information. We have revised this in our manuscript.

2. Reference should be given with regards to cost saving without the cage

Answer: Thank you for pointing this out. We have added the following Reference in the discussion portion of our manuscript: Kim DH, Jeong ST, Lee SS. Posterior Lumbar Interbody Fusion Using a Unilateral Single Cage and a Local Morselized Bone Graft in the Degenerative Lumbar Spine. Clin Orthop Surg. 2009;1:214-221. In this reference, the author had detailed description on the cost saving without the cage.

3. Figures need to be clearly labelled

Answer: We are so sorry it’s our fault. We have revised them in our manuscript.

4. Line 187-188: spelling error "boney unio" should be "bony union"

Answer: We feel so sorry for that, we have revised them in our manuscript.

5. Were any bony of cage migration identified in the study since the authors correctly pointed out that this is a common complication

Answer: Thank you. As far as we know, cage migration were reported by previous
Response to Reviewer Liehua Liu

1. Text and references have a lot of incorrect format and punctuation. For example, 178 “thelocal”; Line188 “unio”; Table 4: Group 1, Group 1?

Answer: We are so sorry for our fault. We have revised them in our manuscript.

2. Line 85#We retrospectively studied 180 patients treated with TLIF between July 2009 and July 2012 at an average follow-up of 35 months. “180” “189”? Loss to follow-up need state.

Answer: Thank you for pointing out it. Because nine patients were lost to follow-up among the 189 cases. We have stated that in the result section Line 145.


Answer: We are sorry for that inaccurate expression. In our study, the mean follow-up time was 35 months, so we think that medium-term is more preferable.

4. Discussion section (Line209-218) does not repeat the content of the results. You should be discussed in depth with literatures. Since this study had such good results, compared to the literature [19],[20], what advantages does your approach has?

Answer: Thank you for your suggestion. We have revised the discussion section according to your suggestion and added the content of the comparison with the literature in the text.

In the previous literature, Doctor Abdul found that the increment in disc height and VAS score was significantly better in the cage group than the bone graft group, however, in his study, only local bone graft is used, which is less rigid and leads to collapse, pain and disability. In the present study, morselized impacted bone graft is different from only local bone graft reported by Abdul. Continued impaction achieved close contact between bone and bone graft bed and enough biomechanical strength. Therefore, the mean disc height to vertebral body ratio was restored and preserved in morselized impacted bone graft group and had no significant difference with the cage group at the final follow up. In addition, the reliable biomechanical strength contributes to the good fusion rate and ODI scores.

5. Table 4: 0.45± 0.09, 0.44 ± 0.43, Standard deviation is large, how to explain? The results should compare between different time (Preop , Postop, Final follow-up) in the two groups. You should compare height loss rate between the groups?
Answer: Thank you for pointing this out. We are so sorry for our typewriting mistake. The HR value of Final follow-up in Group 2 is 0.44 ± 0.13 rather 0.44 ± 0.43. Besides, according to your suggestion, we had compared the results of different time (Preop, Postop, Final follow-up) in Group 1 and Group 2 in our revised manuscript. However, there is no significant difference between Group 1 and Group 2 at every time period.

We greatly appreciate both your help and that of the referees concerning improvement to this paper, and we hope that the revised manuscript is now suitable for publication.

Sincerely yours,

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