Author’s response to reviews

Title: The effect of cyclic knee motion on the elongation of four-strand hamstring autograft in anterior cruciate ligament reconstruction: an in-situ pilot study

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Author’s response to reviews:

Dear editors:


Based on the suggestions from the reviewers, we have carefully revised our manuscript and sincerely hope it will be finally acceptable for publication on BMC Musculoskeletal Disorders.

The point-by-point responses to the referees’ comments are attached below with new line number.

In addition, we have modified the manuscript accordingly (marked red) and double-checked it for sure.
Thank you again for your kind consideration. For any question or comment, please feel free to contact me.

Looking forward to hearing from you.

With best regards,

Sincerely yours,

Yue-lin Hu, MD

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Response to the COMMENTS:

Reviewer #1:

I had the opportunity to review the opportunity to review the manuscript entitled: “The effect of cyclic knee motion on the elongation of four-strand hamstring autograft in anterior cruciate ligament reconstruction: an in-situ pilot study”, which has been submitted to BMC Musculoskeletal Disorders for possible publication.

This study was performed with 53 consecutive patients undergoing transtibial ACL reconstruction with four strand hamstring tendon over a 2-year period, seeking to determine (1) the effect of cyclic knee motion on the elongation of the four-strand hamstring tendon autograft in situ and (2) the stable cycle, in which the tendon length achieved a stable level. The pretension of the tendons was operated by cyclical knee motion ranging from 0-110°after the femoral fixation with Endo-button. The tendon length after 10, 20, 30 and 40 cycles was measured and compared. The main findings reported is that the four-strand hamstring tendon was elongated after cyclic knee motion and the elongation achieved a stable level after 30 cycles for the transtibial technique.

This study is well-written. I like it. The English writing is acceptable. The study design was clear and the results supported the conclusions. Only several minor comments should be settled.
1. Is this a retrospective or prospective study? It needs improved clarify. If it’s a prospective study, authors should determine whether the sample size was big enough to get conclusions. Additionally, the author should show how to group patients, randomly or selectively?

Response: Thank you for your reminding. In fact, the present study is neither retrospective nor prospective. It is an experimental study in vivo for analyzing the elongation of the grafts after cyclic knee motion at ACL reconstruction. So sample size estimation could not be performed for this kind of study. However, we have tried our best to include relevant cases for analysis to ensure the credibility of the data and to get the conclusions. The patients were continuously enrolled during the study. (Line 94)

2. Authors should compare the patient characteristics among groups.

Response: The patients of the present study were grouped by the motion cycles instead of comparison between independent samples, thus all the groups included the same cases with no difference.

3. In the multivariate regression model, what factors were considered as confounders?

Response: The confounders included body weight, pre-op duration and side.

Due to the description above, I recommend this paper for publication within our journal after appropriate corrections.

Response: Thank you very much.

Asbjørn Årøen, PhD,MD (Reviewer 2): This is not new research. The novelty of the study is the application of a real life set up. It is related to an ACL reconstruction technique that is not used so frequently any more. Still is not so that new approaches are significantly better and from my perspective it adds a valuable piece of information.

Response: Thank you very much.