Author’s response to reviews

Title: ACL Reconstruction with Quadriceps Tendon Graft and Press-Fit Fixation Versus Quadruple Hamstring Graft and Interference Screw Fixation - A Matched Pair Analysis After One Year Follow Up

Authors:

Ralph Akoto (rakoto@me.com)
Malte Albers (maltealbers@hotmail.com)
Balke Maurice (maurice.balke@gmail.com)
Bertil Boullion (bouillonb@kliniken-koeln.de)
Jürgen Höher (hoeher@sporttrauma-koeln.de)

Version: 2 Date: 29 Jan 2019

Author’s response to reviews:

Dear Editor, dear reviewers,

Thank you very much for reviewing our paper! We have revised our manuscript according to the comments and suggestions of the two reviewers. Attached please find our point-to-point reply to the reviewers’ specific comments and the file with the revised manuscript.

We look forward to hearing from you. In case of questions do not hesitate to contact us.

Sincerely

Ralph Akoto, Jürgen Höher

Editor Comments:

Table 5 has been labelled as Table 6.

Reply to the editor: We have changed the label.

Reviews BMC
Reviewer 1 general comment: The reviewer wants to congratulate the authors for the well performed study on quadriceps tendon autograft versus hamstring tendon autograft ACL reconstruction. The manuscript is very well written and clear. However, in the Discussion section the authors should provide one short paragraph on the clinical relevance of the study.

Reply to the reviewer: A paragraph on the clinical relevance of the study has been added.

I have only a few minor comments:

Reviewer 1 comment 1: Line 44: It should be "...Tegner score, subjective or..."
Reply to reviewer: done

Reviewer 1 comment 2: Line 45: Whenever the term significant is used, the authors should provide the actual p-value. This should be changed throughout the manuscript.
Reply to reviewer: done

Reviewer 1 comment 3: Line 68: Whenever abbreviations are used for the first time, the authors should use full words followed by the abbreviation. This should changed throughout the manuscript.
Reply to reviewer: done

Reply to reviewer: done

Reviewer 1 comment 6: Line 95: The authors should cite the study mentioned in this sentence.
Reply to reviewer: done

Reviewer 1 comment 7: Line 131: What was the calculated power and effect size of the study?
Reply to reviewer: The statistics section has been revised. The posthoc power analysis was performed for all variables and added to the statistics section.
Reviewer 1 comment 8: Line 178: This should be moved to the statistics section.

Reply to reviewer: done

Reviewer 1 comment 9: Line 243: The authors should use the same conclusion in the abstract as here.

Reply to reviewer: done

Reviewer 1 comment 10: Figures 1 and 2: The authors should use percentages instead of absolute numbers. Furthermore the figure legend should be a bit more descriptive.

Reply to reviewer: done

REQUESTED REVISIONS:

Reviewer 2 comment 1: All the details of the power analysis should be presented. The number of patients needed is critical.

Reply to reviewer: The statistic section has been revised.

Reviewer 2 comment 2: The discussion could be more comprehensive.

Reply to reviewer: A paragraph of the clinical relevance had been added.

Reviewer 2 comment 3: The main limitation is the difference in fixation.

Reply to reviewer: The authors are aware of this limitation. Nevertheless, previous studies have shown that press-fit fixation produces comparable results to conventional fixation technique. We have stated this in the first place of the limitation paragraph.

ADDITIONAL REQUESTS/SUGGESTIONS: With this study design you introduce two variables, type of graft and method of fixation, therefore the potential difference in outcome could be coming from either one.

Reviewer 2 comment 4: Reply to reviewer: It is true that by using different grafts and different fixation techniques two variables has been introduced and so potential differences cannot be clearly assigned. This is a general problem in the comparison fixation techniques of bone block and soft tissue grafts. The biomechanical properties of the press fit fixation technique used in our
study are very similar to conventional fixation techniques. We stated this in the limitation paragraph.

Reviewer 2 comment 4: Table 1 defines lateral or medial meniscus.

Reply to reviewer: done

Reviewer 2 comment 5: Line 174. Please include reasoning for the discomfort and more information.

Reply to reviewer: To determine donor-site morbidity, a four-grade knee-walking test, published by Kartus et al. was used. The knee-walking test by Kartus et al. is a common method to assess donor side morbidity after graft harvesting in ACL surgery. The patients report their subjective discomfort in knee walking in the levels: no problems, minor problems, major problems or unable to perform the test. The discomfort may have been caused by scars or lesions of the N. infrapatellaris. The knee-walking test is commonly known in ACL surgery, therefore we have refrained from a detailed description and only added the corresponding literature quote.