Author’s response to reviews

Title: The gracilis tendon autograft is a safe choice for orthopedic reconstructive procedures: A consecutive case series studying the effects of tendon harvesting

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Author’s response to reviews:

Point by point response to reviewer comments

All manuscript line numbers below refer to the revised manuscript version.

Reviewer reports:

Zhiyong Hou, M.D. (Reviewer 1):

1. This study should collect and analysis the donor site related complications.

Response from authors: This information is already included in the manuscript, lines 138-140 in the methods section and lines 179-182 in the results section. Some methodological limitations exist regarding the collection of this data which are commented on in the discussion on lines 240-246.

2. Recomend to provide the introperative photo, such like the length of the incision and gracilis tendon.

Response from the authors: Unfortunately we do not have such photographs and while they would provide context to the surgical situation described in the manuscript we do not find that they are necessary to respond to the research questions.

3. Introduce some advantages of autologous tendon transplantation compared to allogeneic tendon transplantation.

Response from the authors: This has been added to the Background section lines 52-54.
John P Albright (Reviewer 2):

72 not important but is there any literature that describes side to side hamstring strength differences related to dominate leg?

Response from the authors: We have also taken an interest in this question and performed a search of the literature when writing the manuscript. We could not find any studies of a general population regarding this but only research conducted on specific groups of sports practitioners or after specific physiotherapy. Therefore, we did not include this in our manuscript.

99 delete reference to specific device and company. generally to be avoided in a scientific article

Response from the authors: Our experience is that some Orthopaedic journals require specific company and device names in the manuscript which is why we provided this. It is of course not a problem to change this to a more generic description of the device but we leave this decision to the editor.

142 How/fromwhere do you justify the use of "normative values?"

Response from the authors: Since 5 of our patients did not have preoperative KOOS scores we used age- and gender matched normative values from a study of the general population. This is described on lines 123-126 in the methods section. We have changed the formulation on these lines to further clarify that the normative values were derived from a study of a general population.

156 the use of bar graph is more appropriate. theses are not contiguous values

Response from the authors: We agree that a bar graph is better suited for values that are not contiguous but figure 1 is the so called KOOS profile graph which is recommended by the designers of the KOOS score and widely used. Therefore, we find it more appropriate to use this graph. See www.koos.nu and the “User’s guide 2012” for details on KOOS scoring and presentation.

165 it appears that the means plus even one SD overlap for the first 2 data columns, making the relatively small differences in Newtons not significant?! please clarify and also here or in discussion provide a statement about robustness of the differences also mean difference between newtons at 60 degrees is only 13.1 explain use of "relative difference" ina way that reqders will understand

Response from the authors: These are very valuable points and we have performed revisions to clarify. All calculations on the isometric knee flexor strength variable has been performed in a paired manner where the values of the operated leg and the non-operated leg for each patient has
been individually compared. Statistical analyses have been performed to assess whether actual difference differ from 0 and if relative difference differ from 1. The p-values presented in table 1 refer to these calculations and not to the mean force values presented in the same table. We have amended the statistics part of the Methods section, line 146-152, to explain this more clearly. The reason for the large standard deviation of our mean force values is that we have a heterogenous population with large differences in hamstring force and this should not be viewed as a sign of lack of robustness. We have added the actual differences in a column in table 1 and changed the explanatory text in the table legend to clarify this, line 173-177. We have also added the results regarding the relative difference presented as percent above table 1, lines 169-171.

furthermore you calculated differences in newtons for thes values prior to and 12 months after harvest. Wwhere is this data?

Response from the authors: We only performed isometric strength testing during a follow up visit at the end of the study period. This is explained on lines 127-128 in the Methods section and on lines 168-169 in the results part.

239 please run power function calc to let us know how many subjects would be needed to declare no differences.

Response from the authors: The observation that there was a slight reduction in KOOS scores, much like that often observed after ACL-reconstruction, is a possible opening for future studies on this subject. However, we don’t not think it is appropriate to run a post-hoc power analysis but would prefer to leave this up to future researchers as they would have to make their own assumptions appropriate to their study design and population for this type of calculation.