Author’s response to reviews

Title: The relevance of long head biceps degeneration in the presence of rotator cuff tears

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Author’s response to reviews: see over
To:
Editors-in-Chief

“BMC Musculoskeletal Disorders”

Submission of revised manuscript MS: 5146584723523999 to “BMC Musculoskeletal Disorders” and point-by-point response to reviewer’s reports

Dear Editors-in-Chief,

Thank you for considering our manuscript for publication in “BMC Musculoskeletal Disorders”. We are pleased with the favorable reviews the work attracted and that the reviewers found our results important in its field. We are grateful for the invitation to submit a revised version. All changes performed in the text are highlighted in green. We apologize that we did not mention the name of the local ethics committee in our primary manuscript. Furthermore, we forgot to state that all patients gave their written informed consent prior to the inclusion into the study. In our revised version of the manuscript, you find a statement addressing these points. While reading the PDF files of “Resubmission No. 2” we realized that in the abstract the total number of patients was not changed. Therefore, we immediately submitted Version No. 3 of our manuscript. We apologize for this lapse.

In our response to the reviewers and to the associate editor, comments are listed below. We hope that these changes and corrections make our manuscript suitable for publication in “BMC Musculoskeletal Disorders” and we are looking forward to hearing from you.

With kind regards,

Stefan Lakemeier, MD
Reviewer 1 (Alexander Scott)

Reviewer 1 proposed some language corrections

- Page 2, line 2: This sentence was changed according to the reviewer’s proposal.
- Page 2, line 4: The sentence was changed as proposed.
- Page 2, line 5: The correction was performed.
- Page 2, line 6: “enhanced” was changed to “elevated”.
- Page 2, line 12: The sentence was corrected.
- Page 2, line 13: Corrected as proposed.
- Page 2, line 22: Corrected as proposed.
- Page 2, line 27: Corrected as proposed.
- Page 2, line 30: The sentence was deleted.
- Page 3, line 8: The statement was clarified, now is reads: “The proximal part of the
tendon is located intraarticular. LHB degeneration may occur primarily or can be due
to changes of the glenohumeral joint or the surrounding musculature[11].”
- Page 3, bottom paragraph: The sentence was deleted as proposed
- Page 5, Histology paragraph: The values given for magnification refer to the objective
lens used. This fact was stated in the text.
- Page 5, statistics: We used the Spearman-Rho test for the examination of potential
correlations. I apologize, that we did not mention this in our primary version of the
manuscript.
- Page 6, paragraph 1: The changes were made as requested by the reviewer
- Page 7, paragraph 1: The sentence was deleted as requested, “Pathosis” was changed
into “Pathology”
- Page 7/8: The sentence was divided into smaller units and we think its message
becomes clear now.
- Page 8: Thanks to the reviewer for this very good advise. We read the last publications
of Alfredson et al. on this topic and we found that the group is still focusing on the
mediator substance (actually: “Neuropeptide Y”). As it can be seen as a fact that the
neo-vessels are accompanied by nerves and pain mediation is still – at least in parts -
unclear, we left out the mediator substance in our discussion. The word “assume” was
changed into “hypothesize”.
- Conclusion: The sentence was changed as proposed.
• Figure legends: Figure legends were changed and now it is clear that the values given refer to the objective lens used.

• Figures: In the revised figures 1 a-c and figure 2 asterisks were used to show significant differences.

• Figures 3 a-d: The reviewer was not able to relate the figure legends to the micrographs. This was my fault, as I mixed up the micrographs while uploading them for the first submission. I apologize for the trouble this lapse has caused. In the revised version we changed the photos and now they are according to the text in the legends. Therefore, we think that control staining are no longer needed.

In summary we thank the reviewer for his excellent proposals towards improving our work. Especially the language corrections were very helpful.

Reviewer 2 (Laura Ruzzini):

Major Compulsory revisions:
• The reviewer criticised that in group IV the significances between VEGF expression in the different groups was not clear. In the revised version this fact has been clarified. Now the text reads: “VEGF expression was significantly higher than in the control group p<0.05) but not significantly augmented in comparison with groups II and III (p>0.05).”

Minor essential revisions:
• “Immunochemistry” was changed into “Immunohistochemistry”
• In the statistics paragraph the phrase “(…) between the different time points” was changed into “(…) between the different groups.”
• In the results section the sentence mentioned by the reviewer was deleted.
• In the figures 1 a-c and figure 2 asterisks were used to show significances.
• In the figure legends “straining” was changed into “staining”.
Discretionary revisions:

- We are convinced that the classifications of “Ellman” and “Bateman” for rotator cuff tears are widely used in orthopedics and that they are known all over the world. Furthermore, they can be easily looked up in every orthopedic textbook. Therefore we decided not to repeat the classifications in our manuscript in order to avoid unnecessary elongation of the text.

In summary we thank the reviewer for the very useful information towards improving our manuscript.

**Associate Editor**

- Page 4, first line (…): We included a total 116 patients into this study. Unfortunately, a calculation error occurred during addition of the groups. I apologize for this error. The control patients are among the 116 patients and this is now clearly stated in the revised manuscript.
- Page 6, last paragraph: The number of patients in each Bateman group was provided in table 2.
- Discussion: Thank you very much for this advise. We performed a Spearman-Rho test to find a possible correlation between age of the patients, VEGF expression, vessel size and vessel density. The p-values were >0.05. They can be found in the Results-section. Hence, we can exclude that LHB degeneration this is only a normal result of aging. But nevertheless, age may play a role in tendon degeneration and therefore we found this fact to be a limitation of the study. This was clearly stated in the revised manuscript.
- Following the editor’s advise, the sentence “as a primary source of pain (…)” was deleted.
- Page 9, line 1: Following the editor’s advise, the sentence was corrected.
- Page 9, paragraph 2, last line but 2: The editor’s concern was considered. In our revised version this sentence reads: “Despite the fact that LHB degeneration and degenerative shoulder disease may develop concomitantly due to common ethiological factors, we think that our results suggest that the genesis of LHB degeneration follows degenerative shoulder disease.”
Page 10, conclusion: The formulation “(...) found strong evidence(…)” was changed into the formulation: “(...)Furthermore, on the basis of our results and the results from previous studies, it seems likely that LHB degeneration is secondary to the development of rotator cuff tears and is aggravated over the course of degenerative shoulder disease.”

In summary, we thank the associate editor for his very helpful advices towards improving our manuscript. We apologize again for embarrassing calculation error and the trouble it has caused.