Author’s response to reviews

Title: Arthroscopic rotator cuff repair with and without subacromial decompression is safe and effective

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Author’s response to reviews:

RE: “Arthroscopic rotator cuff repair without subacromial decompression is safe and effective: a case control study.”

Editor Comments:
Apologies for the error in the previous decision some minutes ago.

The method’s section needs re-writing. As per both reviewers' concerns, confirm and explain thoroughly why this study is a case-control type and not a case series. The sample size would be excessive for a case-series with a "consent for publication" form needed. BMC Musculoskeletal Disorders operates a policy of open peer review, which means that you will be able to see the names of the reviewers who provided the reports via the online peer review system. We encourage you to also view the reports there, via the action links on the left-hand side of the page, to see the names of the reviewers.

A: We thank the Editor for the comment. The method’s section was rewritten in a clearer way. This study is an observational one in which we identified two existing groups differing in the outcomes and we compared them on the basis subacromial decompression. This made the study a “case-control study”.

Reviewer reports:
Lars Adolfsson, professor, MD (Reviewer 3): The manuscript contains interesting information. There are a few uncertainties that need clarification and some minor errors.
The study is labelled ‘case-control’ It is hard to see that one Group could serve as a Control since they had different treatment based on differences in their anatomy. I would suggest that this subtitle is removed.

A: We thank the reviewer for giving us the opportunity to clarify that we did attempt to compare the outcomes of arthroscopic rotator cuff repair (RCR) performed with suture anchors, with or without the association of subacromial decompression. The different treatment was not only made on the basis of the presence of a type III acromion. Most patients allocated to group 1 had a reduction of subacromial space because of an acromion type III or acromial spurs or acromioclavicular joint arthritis, but not all. We clarified this in the Methods section We changed the title of the manuscript from “Arthroscopic rotator cuff repair without subacromial decompression is safe and effective: a case control study.” to “Arthroscopic rotator cuff repair with and without subacromial decompression is safe and effective”

In the first line of the background section the abbreviation RC occurs without any explanation.

A: We thank the reviewer for this suggestion. We modified the background section explaining the abbreviation RC.

The incidence numbers of full thickness rotator cuff ruptures varies in the literature and there are more references that might be relevant to this statement.

A: We have taken on board the suggestion of the Reviewer, and the references have been improved. We have also included epidemiological data from the latest meta-analysis. We hope this is acceptable.

The main concern is however the section ‘patient enrolment’ which is unclear to the extent that one of the reviewers even believed that the study had been a prospective randomized one. The authors state at the end of the discussion that this was no the case but it should be clearly expressed that it was a retrospective examination of patients having undergone rotator cuff repair and – to my understanding – these patients fell into two different categories; one Group operated with simultaneous subacromial decompression and the other Group without.

A: We thank the reviewer for this suggestion. We modified the paragraph to clarify the methodology of patient enrolment.

The decision of the decompression was apparently made based on the presence of type III acromion shape and appreciated subacromial space reduction. This may of course result in inclusion bias which should be acknowledged and discussed. The factors leading the surgeon to perform the decompression may in fact illustrate differences between the treatment Groups. Presumably the post hoc analysis was based on a primary outcome variable? This should then be described.

A: We thank the reviewer for these suggestions. All patients of the group 1 underwent a RCR with simultaneous subacromial decompression. Of these, 25 had type 1 acromion shape, 26 had type 2, and 8 had type 3 according to Morrison and Bigliani classification. Therefore, the decision to undertake a decompression was not only performed based on the presence of a type III acromion and appreciated subacromial space reduction. We clarified this in the Methods section. Moreover, we clarify that the post -hoc analysis was performed on the basis of the hypothesis that there is a difference in outcomes of group 1 and group 2.

Joseph DeAngelis (Reviewer 4): The paper address the question posed and warrants publication. However, before publication, the methods section needs to be re-written to accurately reflect the
structure of patient enrolment. In the Discussion, the description of the study's weakness it sounds like this was a retrospective cohort study. The methods section describes patients being randomized.

A: We thank the reviewer for his suggestion. We modified the Methods section. In particular, we clarify the patients’ enrolment.

We hope that the changes implemented have improved the manuscript, and that this has now reached the standard necessary for formal acceptance.
We look forward to hearing from you.