Author's response to reviews

Title: Acromioclavicular joint reconstruction with coracoacromial ligament transfer using the docking technique

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Version: 3 Date: 24 September 2008

Author's response to reviews: see over
July 24, 2007

Melissa Norton, MD
BMC Musculoskeletal Disorders
www.biomedcentral.com/

RE: Manuscript: Acromioclavicular joint reconstruction with coracoacromial ligament transfer using the docking technique
Manuscript ID 3391390561810411

Dear Dr. Norton,

We are submitting a revised manuscript on “Acromioclavicular joint reconstruction with coracoacromial ligament transfer using the docking technique online with BMC Musculoskeletal Disorders“.

Acromioclavicular joint reconstruction with coracoacromial ligament transfer using the docking technique

As requested, we have made requested editorial changes:
We added information on the IRB approval to the methods section and the written consent of all participating patients.
Authors’ contributions are added to the manuscript in detail.
Acknowledgements has been added to the manuscript.
The manuscript has been changes to conforms to the journal style

Author’s response to reviewer’s comments

Reviewer In-Ho Jeon

We appreciate the reviewer’s comments to our manuscript.

Our study presents a technique to transfer the coracoacromial ligament to the distal end of the clavicle with a so called docking technique. Basically this is a modified Weaver-Dunn procedure with the key advantage of being able to control the proper tensioning of the transferred ligament. This helps significantly in achieving the correct reduction of the clavicle. Previously published techniques for modifications of the Weaver-Dunn procedure do not have this key advantage.

We do acknowledge that the patient group presented is somewhat heterogenous. This represents the patient population surgeons see in daily practice. The presented technique and
it’s results show that this modification of the Weaver-Dunn procedure with the “docking-technique” is applicable as well in acute as in chronic cases of AC joint separation.

The study design was retrospective which is now pointed out clearly in the materials and method section.

The reviewer requests more information on how patients could have had a repeated Weaver-Dunn procedure. As we have pointed out in the manuscript, the previous operative note of these patients stated, that the CA ligament has been harvested in the initial procedure, which failed. To our surprise the CA ligament could have been identified and was intact in the revision procedure. Therefore the patients were eligible for a Weaver-Dunn procedure. We only can assume, that the ligament has not actually been harvested in these two patients.

We believe that Figure 1 and 2 are very helpful to visualize the indications for this procedure. If there is editorial concern, that the manuscript is too long, these figures can be easily omitted.

A statement on the limitations of the presented procedure has been added to the discussion as requested.

Reviewer Keith M. Baumgarten

We thank the reviewer for his comments, which we addressed as follows and which helped to improve the quality of the manuscript.

The authors agree and acknowledge the weaknesses the reviewer points out. However, we believe that a heterogenous patient population as in our series is the reality in most surgeons practices. Therefore we do strongly believe, that the study group and the results as presented will add valuable information to many orthopaedic surgeons practices.

The point-by-point comments are addressed as follows:

Page 3: We added a sentence pointing out clearly, that this is a non-anatomic technique for AC joint reduction.

Page 5 – 6: We added a paragraph to the end of the techniques section, describing how the presented technique varies from the original Weaver-Dunn technique.

Page 8: We added a sentence to clarify how the ligament is cycled.

Page 8: As requested we added the normal coracoclavicular distance for better understanding of the mentioned over reduction. We referenced this distance.

Page 8: We explained why we recommend to over reduce the clavicle as minimal creep is not avoidable with our technique. Other modified Weaver-Dunn techniques also have creep. It is important not to overreduce the clavicle more than there is possible creep, which would result in a finally over reduced clavicle.

Page 10: Unfortunately we do not have data on symptomatic cross body adduction tests on all patients pre- and postoperatively. We do agree with the reviewer that this would be valuable additional data. We will definitely include this in our next follow-up evaluation.
The study was not powered appropriately to show a difference for acute versus chronic reconstruction using the index procedure. We added a statement and agree with the reviewer that this is a limitation of our presented case series.

**Reviewer Robert LaPrade**

We greatly appreciate the reviewers helpful comments on our manuscript.

We address the reviewers main concern on presenting this technique as unique by changing all paragraphs on this as requested.

We also agree with the reviewers comment on the reduction of the clavicle. There is a variance of 11 - 13 mm for the coracoclavicular distance described in the literature. We recommend to reduce the clavicle to a coracoclavicular distance of 5 - 10 mm. We appreciate the reviewers comment on this, as it helps us to clarify this distance in the manuscript. The 5 – 10 mm interval is obviously dependent on the patients anatomy and individual variance, which we now clarify in the manuscript. We also point out, that excessive over reduction may cause impingement symptoms.

The reviewer asks for a clarification, why the secondary fixation has been switched to absorbable sutures. In the early series the transferred CA ligament was secured by a palmaris-longus autograft and an additional PDS braid. The tendon autograft was omitted in the further series and the absorbable PDS braid was used alone to secure the transferred CA ligament temporarily during the ingrowth period. We changed this sentence to make this more clear and concise for the reader.

All future correspondence should be addressed to Dr. Peter Millett, Attn: Clinical Research, 181 W. Meadow Dr. Ste 1000, Vail, CO 81657. The phone number is 970-479-5876 and the fax number is 970-479-9753. Email: drmillett@steadman-hawkins.com. Thank you in advance for your consideration in reviewing this manuscript and please let us know if there is any other information that you may need.

Sincerely,

Peter J. Millett MD, MSc