Reviewer's report

Title: Treatment of Myofascial Trigger Points in Patients with Chronic Shoulder Pain: A Randomized Controlled Trial

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Reviewer: Cesar Fernandez-de-Las

Reviewer's report:

This is an interesting study which deserves publication since investigates an extremely necessary and important topic: the effectiveness of TrP treatment for shoulder pain. I have some comments for improving the quality of the manuscript.

1. Abstract. I recommend that the method section would be rewritten with more and clear data about what was done, particularly about groups. In the results section authors should comment the cut-off for considering improvement or non improvement in the GPE.

2. Introduction: Authors should focus the introduction on shoulder pain and not in shoulder impingement. The first paragraph is not appropriate for this study. Authors should include the study by Hidalgo-Lozano et al Exp Brain Research 2010 about TrPs in shoulder impingement. A link between muscle tissues, TrPs and shoulder pain would be helpful for some readers (e.g. muscle motor control impairments in shoulder pain)

3. Methods: Authors can describe the medical diagnosis that patients with shoulder pain included in this study had been referred to the clinic. A figure with the referred pain patterns from the TrPs included in this study (or some) would help to some readers. It is important that authors include which muscles were explored. Authors should include a reference for the sample size calculation. A better and complete description of TrP treatment is recommended. Also a figure with some techniques would help to readers not familiar with these interventions. Which is the cut-off for consider a recovery in the GPE? In the statistical section they classified patients in improved and not improved, a cut-off in the GPE is necessary.

4. Results: A short phrase clarifying that no differences between groups before star the treatment is necessary to see the comparative situation between groups. In the results section references are not properly included [95]. Although not significant, PROM part should be included in the text (F and P values).

5. Discussion. Very good. I would like to see some hypothesis why TrP treatment is effective for shoulder pain (changes in sensitization, improvement of motor control, improvement of shoulder girdle biomechanics, etc). Authors should also comment that the control group also improved (figure 3).

6. Tables: I believe that authors should include in the discussion that the control group have a greater number of latent TrPs (5.) than the intervention group (4.2)
which was statistically significant (table 2). Can this finding related to the results of the study?

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests