Reviewer’s report

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

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Reviewer: Chang-Zern (John) Hong

Reviewer’s report:

This is a single blinded randomized controlled trial to evaluate the effectiveness of a 12-week comprehensive physical therapy program for myofascial trigger points (MTrPs) in patients with chronic non-traumatic unilateral shoulder pain, compared to a control group with “wait-and-see” strategy. After 12 weeks of therapy, the intervention group showed significant improvement in all outcome measures compared to the control group.

This study is well designed and conducted. It is important and valuable in the field of myofascial pain. Authors should emphasize that their findings can further support the importance of MTrPs as a major cause of soft tissue pain.

One concern in this article is the definition of active MTrP and latent MTrP. Simons defined an active MTrP as the one with spontaneous pain (or + referred pain) or pain in response to movement, while a latent MTrP is the one without spontaneous pain but pain in response to compression (tenderness). In the “Introduction” of this paper, active MTrP was defined as “a symptom-producing MTrP and can trigger local or referred pain or paraesthesia”. According to this definition, an MTrP without spontaneous pain may also trigger clinical symptom (trigger local or referred pain similar to patient’s usual clinic discomfort [pain recognition]) by compression of this MTrP, and can also be called active MTrP. This would be quite different from Simons’ original definition. Since Simons’ “Trigger Point Manual” was quoted in this paper as a reference for definition, it is strongly suggested that “active MTrP” and “latent MTrP” should be defined following Dr. Simons’ definition. In this study, the “active MTrP” was confirmed, “when the patient recognized the pain from compression on the tender spot”. In such case, some of them might not be active MTrPs at the time of examination, although they might be active MTrPs sometimes after the onset on clinical symptoms. It is suggested to use different term (other than active MTrP) in this study, such as “symptom-producing MTrP (sp MTrP)”.

It is also suggested to add the following important issue in the “Discussion”. Reduced tightness of MTrP and taut band after MTrP therapy can improve focal circulation, and thus to improve the healing of the underline pathological lesion (such as tendinitis, bursitis, etc. if any) associated with shoulder pain. Reduced pain and tightness can also improve mobility and daily life. The importance in MTrP therapy should be emphasized in this study.

There are few other minor points as listed below:
1. The standard for DASH should be spelled out in the text (beside the “Abstract”) when it first appeared in the text.
2. It is suggested to list these 17 muscles examined for "active" MTrPs.
3. It appears that many references (totally 113) were listed. You may consider cut some unnecessary ones.

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests.