Reviewer’s report

Title: Myofascial trigger points in cluster headache patients: a case series.

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Reviewer: Corrie Myburgh

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Review comments

It is indeed an interesting hypothesis that the presence of diagnostically relevant TPs could contribute strongly to cluster headache. Considering the encouraging findings observed in other headache syndromes, investigations into this sub-group of head pain is a logical progression. Furthermore, the debilitating nature of cluster headache attacks, this plausible association must be observed in an effort to assist the patient (Smeeth et al. 2006).

Having stated this, there are issues related to this study which should be considered in order to inform the study of this particular clinical phenomenon. I will provide a general comment and then specific comments in relation to the various sections of the manuscript.

Please note the abbreviations, where action is required from the authors (Major Compulsory Revisions= MCR, Minor Essential Revisions= MER, Discretionary Revisions= DR).

General

1. The article is well written and concise for the most part. However, besides early theory/hypothesis building, case series studies have a descriptive function and in order for this to be carried out well, the authors have to provide a detailed description of their subjects and protocol(s) followed. I am sure that there are limitations placed w.r.t. the length of the manuscript, but the lack of detailed description in this study is a concern (I shall provide specific comments below). MCR

Abstract

2. TrPs can be found in most people, with or without cluster headache. It should be clearly stated that these are diagnostically relevant (active) TPs judged on the criteria of referred pain. MER

3. No mention is made of the episodic patients in the abstract- why is that? MER

4. The abstract is not clear on where exactly the injection was given, I assume it was into the TrP- please clarify. DR

Findings

Paragraph 1:
5. The first sentence reads’…headache pathophysiology, this is still…’ Suggest re-phrasing to ‘pathophysiology, the process is still only partially…’ DR

Paragraph 2:
6. The second sentence starting with ‘Myofascial trigger points eliciting the typical patient’s headache…’ is confusing. Are the authors referring here to the particular subject observed or to the typical referral pain pattern of a particular TP? DR

7. The word ‘explore’ is overused and becomes confusing. Suggest using terms that describe specifics e.g. examined, observed etc. MER

Paragraph 3:
8. Although I assumed the authors are trying to make the point that the examining clinician was specifically trained in locating TrPs by palpation, this point is not well stated. Suggest re-phrase. DR

9. How was the clinician able to regulate the pressure applied? Was there some type of special training? It is an interesting point and well worth making as this aspect is poorly reported on in the literature (For more information see also Myburgh et al. 2008). DR

10. In sentence 5, one might conclude that the TP identified produced the patient’s pain, which happened to correlate closely with the presentation of a cluster headache. Are the authors suggesting that these subjects suffer from myofascial pain syndromes, which also satisfy the criteria of cluster headache? This is a critical issue and should be clarified. MCR

11. Furthermore, in this sentence one might deduce that spot tenderness and a taut band were not considered relevant. These are key characteristics for the identification of TrPs without which one would have difficulty locating the TrP site to be injected. Please elaborate/clarify this point. MCR

12. Did the examiner palpate muscles (on an a priori basis) known to refer to the area associated with cluster headache that could be considered to lie outside of the head/neck area e.g. SCM and Trapezius? MER

Paragraph 4:
13. Where was the injection site(s)? It is not clear from the method were the needle was placed (considering that exquisite tenderness was apparently not used as a criteria). MCR

14. In therapy strategy ‘c’, did the TrPs persist or was the intervention given as long as pain referral was noted? If TrPs tended to persist this would be a rather unusual and interesting finding as TrPs are routinely abolished after one needle intervention. Please clarify this point. MER

Paragraph 5:
15. Suggest location of TPs be incorporated into table 2, so that specific
locations can be seen for all subjects. DR

16. What was the observation interval? Please state specifically. MER

17. Little is mentioned with respect to specific outcome measures. For instance was a headache diary used to document episodes. MCR

18. Did the authors note a reduction in severity of attacks when they did occur? If so, was this specifically documented? MER

Paragraph 7:

19. The authors correctly state that needling seems to gain its effect more from the needle itself, than from anything injected into the patient. Why then was simple dry needling not also considered given the lower risk of iatrogenesis? MER

Table 1:

20. Suggest including some more demographic/anthropometric detail e.g. occupation, general health status. DR

Table 2:

21. Include a column for TP location. MER

Conclusion:
This is an interesting article that could fuel further study, more detail is required to improve on its usefulness.

References:
Smeeth L, Donnan PT, Cook DG.
The use of primary care databases: case-control and case-only designs.
PMID: 16787956 [PubMed - indexed for MEDLINE]

Myburgh C, Larsen AH, Hartvigsen J.
A systematic, critical review of manual palpation for identifying myofascial trigger points: evidence and clinical significance.
PMID: 18503816 [PubMed - indexed for MEDLINE]

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.