

In Response

To THE EDITOR:

We would like to thank Zhang et al for their interest in our study and thorough reading of our paper (1). The authors have identified some issues with our decisions on including studies in the meta-analyses and the references in Table 1. We will respond to these issues in this letter.

An important comment of Zhang et al is that the two articles included in the meta-analysis in chronic Tension Type Heache (TTH) by Fernandez de las Penas et al. are suspected of describing an identical cohort of patients (2,3). The review team has discussed this item thoroughly during the data-extraction process and contacted, so as Zhang et al suggested, the corresponding author from both papers (2,3) The corresponding author replied that different participants were used. Therefore, we have included these 2 articles (2,3) in our meta-analysis. The patients of the 2 studies of Ashina et al (4,5) differ in gender and age and were recruited from different populations. Therefore, we decided that these cohorts are considered separate.

The final comment reflects on the pooled results in Fig. 6 of the study of Hvedstrup et al. (6). As the authors already mentioned, it is allowed to include studies with duplicate healthy patients in the qualitative evidence synthesis. We have separately described migraine with ictal neck pain versus healthy controls and migraine without ictal neck pain versus healthy controls in Fig. 6 because the pericranial tenderness score between both patient groups differs and may be relevant for clinicians. We agree with the comment that duplication of healthy cohorts has to be corrected for the number of comparisons made in Fig. 6 as this may influence the overall effect. We recalculated the overall effect in Fig. 6 based on the sample size of 23. This resulted in minor changes (SMD 1.27; 95% CI:0.91 to 1.63 versus SMD 1.19; 95%CI:0.86 to 1.51) and did not affect our conclusions.

We apologize for the incorrect references in Table 1. After revising our manuscript, we have added and

changed references throughout the manuscript but accidentally submitted an old version of Table 1. We have submitted the revised Table 1 to the editor.

With this letter, we have clarified the comments of Zhang et al and confirm the conclusion of our meta-analysis that a critical evaluation of the total tenderness score in the current ICHD-3 classification of TTH is needed.

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