Reviewer's report

Title: Acupuncture for ankle sprain: Systematic review and meta-analysis

Version: 2 Date: 5 November 2012

Reviewer: Daniel Cheuk

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In my opinion, this paper has some problems that need to be dealt with before publication.

Major issues:

1. This is a meta-analysis of randomized controlled trials and hence at the top of the evidence-base hierarchy and therefore the results can potentially be practice-changing. So it is very important for the conclusion of the review to be accurately phrased so as not to be misleading. After I have read the whole review and evaluated the included studies, I think the conclusion should be that “there is no good evidence supporting the use of acupuncture for ankle sprain”, mainly due to high risk of bias in the included studies. The authors’ conclusion in the abstract that “the results from this review show the potential of acupuncture for ankle sprains” is misleading and should be deleted or rephrased.

2. The authors included quasi-RCTs. How did they define quasi-RCTs? Which included studies were quasi-RCTs? The authors should show this in the tables and analyze them separately as they are more prone to bias compared to genuine RCTs.

3. There should only be a single primary outcome and all others should be put in the secondary outcome category.

4. Results derived from comparing acupuncture with different controls should not be pooled together as the effect size of different comparisons is conceptually very much different. For example, NSAID and herbal medicine should be separately analyzed.

5. In the 3rd paragraph of the discussion section, the authors mentioned that “it is not clear whether there is ‘no evidence of difference’ or ‘evidence of no difference’. Actually these two are different conclusions. With small sample size, a statistically non-significant result clearly indicates no evidence of difference instead of evidence of no difference.

6. In the Discussion section, the authors should make specific suggestions on how future studies should be conducted so as to give a more definitive answer to the research question by reducing bias, e.g., how blinding may be achieved, etc.

Level of interest: An article whose findings are important to those with closely related research interests
Quality of written English: Not suitable for publication unless extensively edited

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

Declaration of competing interests:

I declare that I have no competing interests.