

## OPEN PEER REVIEW REPORT 2

**Name of journal:** Neural Regeneration Research

**Manuscript NO:** NRR-D-20-00201

**Title:** Repetitive transcranial magnetic stimulation for lower extremity motor function in patients with stroke: systematic review and network meta-analysis

**Reviewer's Name:** Yulong Bai

**Reviewer's country:** China

### COMMENTS TO AUTHORS

Weaknesses:

1. The results and conclusions don't provide insightful view.
2. There are insufficient evidences in the assessment of heterogeneity and inconsistency.
3. The discussion still needs deeper detailed clarification.

Comments:

1. This study is 'review' rather than 'original research'.
2. This meta-analysis lacks clinical registration number.
3. It needs to consider whether studies with different TMS frequencies, intensities, and numbers of pulses imposed to ipsi/contralateral cortices can be compared.
4. Authors should make sure that the effect modifiers in different groups don't affect the validity of indirect comparisons.
5. Some comparisons in supplementary materials lack  $I^2$  and  $\text{Tau}^2$  statistics.
6. There is much uncertainty in measurements such as  $I^2$  and  $\text{Tau}^2$  when there are few studies. A non-significant results must not be taken as evidence of no heterogeneity. Some  $I^2$  in author's supplementary materials shows considerable heterogeneity. I recommend exploring the reasons for the heterogeneity (meta-regression or subgroup analyses), or systematic review for some heterogeneous outcomes rather than meta-analysis.
7. The flow diagram doesn't mention the excluded studies of which PEDro scores are lower than 4 (line 115). Authors should make sure whether or not the quantitative analyses contain those excluded studies.
8. Part of line 290-296 and line 316-320 are duplicate content. I recommend moving the results in Assessment of heterogeneity and inconsistency to corresponding parts in Results.
9. Please check the data presented in the review thoroughly. (e.g. line 259 differs from the results in eTable 1 regarding LF vs sham)
10. Please verify the completeness of 'rTMS site' and supplement the Abbreviation (e.g. M1-LL) (Table 2)
11. RCT and crossover trials are designed in different ways but both are included in the review to do quantitative analyses. How do authors integrate the data to analyze their transitivity and validity?
12. Why combining the outcomes of BBS and TUG into one parameter? They are two different tests.
13. Only MEP represents cortical excitability. The results with weak evidence are unable to demonstrate specifically the effects of rTMS on motor function of lower extremities. The insufficient discussion based on MEP outcomes may not shed light on neuro-electrical activity of rTMS intervention clearly therefore I recommend drop this parameter.
14. The Discussion still needs deeper clarification on whether the study reaches credible conclusion, and why the conclusion is of clinical significance.
15. Please follow the PRISMA Extension Statement for Reporting of Systematic Reviews



Incorporating Network Meta-analyses of Health Care Interventions

(<http://www.prisma-statement.org/documents/PRISMA%20NMA%20Annals%202015.pdf>), and upload the checklist.