Reviewer's report

Title: Electroacupuncture-like stimulation at Baihui and Dazhui acupoints exerts neuroprotective effects through activation of the brain-derived neurotrophic factor-mediated MEK1/2/ERK1/2/p90RSK/Bad signaling pathway in mild transient focal cerebral ischemia in rats

Version: 2 Date: 1 December 2013

Reviewer: Zhi-Ling Guo

Reviewer's report:

This study examined that the effect of electroacupuncture-like stimulation at Baihui (GV20) and Dazhui (GV14) acupoints on mild cerebral ischemia-reperfusion injury and underlying neuroprotective mechanisms. While the data obtained from this study will add some pieces of information to this research filed, there are several concerns raised from this manuscript.

1. The rational for selection of both Baihui (GV20) and Dazhui (GV14) acupoints was not clearly elucidated. Did application of electroacupuncture (EA) at either of these acupoints alone have any effect on cerebral ischemia-reperfusion injury?

2. In Figure 5, the images showing co-labeling of nuclei (NeuN) and caspase-3 were quite poor. Neurons containing a single- or double-labels were not shown clearly. Thus, these staining results could not strongly support the statement derived from this experiment.

3. In Figures 3 and 4, there were positive staining appeared on representative panels of images obtained from “negative control stain”. What were they? In addition, for comparisons, the size of images showing “negative control stain” should be the same to others produced from routine staining.

4. In Table 1, compared to sham control, were there any significant changes in other groups in addition to the model group? It needed to be indicated

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

Quality of written English: Needs some language corrections before being published

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