Reviewer’s report

Title: Electroacupuncture at different frequencies (5Hz and 25Hz) ameliorates cerebral ischemia-reperfusion injury in rats by activating p38 MAPK-mediated anti-apoptotic signaling pathways

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Reviewer: Jakob Troppmair

Reviewer’s report:

The manuscript has substantially improved and the majority of issues raised by this reviewer have been addressed. One issue, which still persists is the restriction of signaling analysis to day 7 and the argumentation provided by the authors. If p38 is involved in protective signaling and damage normally is visible after 1 day of reperfusion (neurological impairment, increased infarct area) p38 activation is required very early on. Thus suggesting that p38 activity found of day 7 was responsible for the protection may be true but not substantiated by any experimental data. This also has to be seen in the light that the authors also do not provide any evidence (e.g. through the use of inhibitors) that p38 signaling is really responsible for the protective effect observed. Thus if the paper should be published in its current form, the limitations clearly should be stated and the claims should be tuned down.

In the discussion of the apoptotic pathways there is no non-cytochrome c mitochondrial pathway, which leads to the activation of caspase 3.

The DAPI/nuclear pCREB co-staining should be shown by preparing an overlay of the two images rather than using arrows.

Level of interest: An article of limited interest

Quality of written English: Acceptable

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

Declaration of competing interests:

I do not declare any competing interests.