

OPEN PEER REVIEW REPORT 1

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Title: Neurotherapeutic potential of erythropoietin after ischemic injury of the central nervous system

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COMMENTS TO AUTHORS

In the central nervous system erythropoietin (EPO) producing cells as well as EPO receptor presenting cells can be found as one of the most important lines of defense against temporary tissue damage like e.g. ischemia that would otherwise result in cell apoptosis. Those cells are mostly astrocytes, neurons, oligodendrocytes and neural progenitor cells. Indeed, preclinical studies revealed an enormous potential for EPO as a neuroprotective drug. Regarding ischemic strokes, high doses of EPO administration showed that cells lying in the ischemic penumbra of the brain, profit from antiapoptotic EPO effects. This is a well written review. However, it does not take into account two factors: aging and comorbidities. Therefore I suggest the authors shall add a section on these factors referring to the following refs.

1.Int J Mol Sci. 2018 Jan 25;19(2). pii: E356. doi: 10.3390/ijms19020356.

2.Neural Regen Res. 2015 Sep;10(9):1349-55. doi: 10.4103/1673-5374.165208

3.Restor Neurol Neurosci. 2014;32(4):547-58. doi: 10.3233/RNN-140404

4.Front Cell Neurosci. 2014 Nov 3;8:347. doi: 10.3389/fncel.2014.00347. eCollection 2014