Reviewer's report

Title: Pretreatment with nimodipine reduces incidence of POCD by decreasing calcineurin mediated hippocampal neuroapoptosis in aged rats

Version: 0 Date: 10 Jul 2017

Reviewer: Marcela P. Vizcaychipi

Reviewer's report:

Thank you for your submission.
Please comments below

The title does not reflect the work. Memory is assessed in animals as surrogate of cognition as cognition is more complex in humans. There is no hypothesis for the work presented. The is no consistency on data presentation. There are sentences very difficult to follow. Lack of factual informations and understanding of clinical issues relevant in the preoperative period. There is an isolated paragraph on volatile anaesthesia which does not flow. Very vague vocabulary e.g. 'lots of studies'. Use of first person on last paragraph of the introduction.. The structure of the method is good but the content is poorly described. Difficult to follow. The MWM has to be described scientifically with rationale and refer to other manuscripts. The detection of hippocampal neuroapoptosis it is not clear. The weight of the hippocampus seems to be too low to reflect the entire hippocampus. Have the authors used half of it? if so what site and why. There is no description how apoptotic cells where quantified and what threshold was considered significant. The detection of intracellular calcium becomes even more cumbersome. The WB are standard techniques and still lack of details. The way results have been presented and analysed does not make sense. The WB results do not have a ladder as a reference point and it seems the concentration of proteins differ enormously from one column to another.

Are the methods appropriate and well described?

If not, please specify what is required in your comments to the authors.

No
Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.
Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.
No

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.
I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:
Not suitable for publication unless extensively edited

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?
2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?
3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?
4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?
5. Do you have any other financial competing interests?
6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.
The title does not reflect the work. Memory is assessed in animals as surrogate of cognition as cognition is more complex in humans. There is no hypothesis for the work presented. The is no consistency on data presentation. There are sentences very difficult to follow. Lack of factual informations and understanding of clinical issues relevant in the preoperative period. There is an isolated paragraph on volatile anaesthesia which does not flow. Very vague vocabulary e.g. 'lots of studies'. Use of first person on last paragraph of the introduction. The structure of the method is good but the content is poorly described. Difficult to follow. The MWM has to be described scientifically with rationale and refer to other manuscripts. The detection of hippocampal neuroapoptosis it is not clear. The weight of the hippocampus seems to be too low to reflect the entire hippocampus. Have the authors used half of it? if so what site and why. There is no description how apoptotic cells where quantified and what threshold was considered significant. The detection of intracellular calcium becomes even more cumbersome. The WB are standard techniques and still lack of details. The way results have been presented and analysed does not make sense. The WB results do not have a ladder as a reference point and it seems the concentration of proteins differ enormously from one column to another.

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal