Reviewer’s report

Title: Effects of Stress on Behavior and Resting-State fMRI in Rats and Evaluation of Telmisartan Therapy in a Stress-Induced Depression Model

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Reviewer: Bin Zhang

Reviewer's report:

This manuscript entitled "Effects of Stress on Behavior and Resting-State fMRI in Rats and Evaluation of Telmisartan Therapy in a Stress-Induced Depression" reports on a study investigating the behavioral impact and cerebral alterations of chronic unpredictable mild stress (CUMS) in the rat and evaluating the efficacy of telmisartan therapy, which is a useful study and could provide pre-clinical evidences. However, there is a small sample size for each group, and there is not clear hypothesis. Especially, there are a lot of mistakes in the method part. There are several comments I have with the Introduction and Methods parts in the current form. Due to the method problems, I skipped the results and discussion parts.

1. In the current manuscript, authors used two rs-fMRI methods, ALFF and ReHo, however, they did not explain clearly why use these two different methods. Usually, one study only uses one method.

2. The first three line of page 5 seems the rationale of the study, but it is not clear. And, there is no hypothesis in the Introduction.

3. The producer of the MRI scanner is missing. And a lot of space are missing.

4. The different p values were considered significant. In one study, one criterion should be use.

5. "resting-state functional images were recorded axially over 13 min and 26 s with the following parameters: repetition time (TR) = 2691.4ms", so the volumes should be around 300. However, "a mean image was created over the 180 realigned volumes". Authors should check this problems.

6. "All participants had less than 3 mm of translation in the x, y, or z axis", however, the primary resolution is 1mm. So 3mm is not suitable, it should be used 1mm.
7. The processing steps of ALFF and ReHo are wrong. For ALFF, it is should be no filter. For Reho, it should be no smooth.

8. It should be used multiple comparison correlation methods. For ALFF and ReHo, authors only report uncorrected p<0.001 results. For correlations between behavior and fMRI, authors did not use any multiple comparison correlation method.

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

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Please indicate the quality of language in the manuscript:

Not suitable for publication unless extensively edited
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