Reviewer’s report

Title: A randomized, double-blind, placebo-controlled trial on the role of preemptive analgesia with acetaminophen [paracetamol] in reducing headache following electroconvulsive therapy [ECT]

Version: 0 Date: 20 Mar 2017

Reviewer: Elisabeth Colon

Reviewer's report:

The authors present an interesting study dealing with the question whether acetaminophen administration before electroconvulsive therapy helps reducing potential headache after the therapy.

Here are my comments:

1) In the introduction, I recommend to give more details about why and when electroconvulsive therapy is used in psychiatric disorders for the understanding of readers less familiar with the technique.

2) In the methodology, the authors explained that patients receiving unilateral or bi-frontal ECT had been excluded from the study. However, they should also explained why they chose to only include bilateral ECT and the indication for one or another type of ECT. This could be included in the introduction section. Moreover, it is not clear why the energy level used to induce seizure is different between placebo and treatment group.

3) In the section describing the statistical analysis, it is not clear what the authors mean by "perception of headache" and "exposure variables" as these words are not used in the Methodology section. For the clarity of the manuscript, I suggest to always use the same terminology for the different variables throughout all the sections of the paper.
4) Page 9 line 19: the authors talked about a randomized controlled trial using ibuprofen. The reference of the paper is needed and I would give more information about the result of this study.

5) Page 9 lines 34-46: this paragraph is not clear and should be rephrased. For example, it is not clear in which study an incidence of 21.6% of headache was found (the current study or the study of Haghighi?). Moreover what is the "index episode"? This word is used only twice in the manuscript and not explained in the Methodology section. As pointed above, the same terminology should be used throughout all the paper.

6) In the same paragraph, it is suggested that the time of the assessment (2 hours or 6 hours) and the diagnosis of the patients could be important to explain differences with previous studies. To facilitate the understanding of the reader I suggest explaining why these factors could be important.

7) Limitations: some drawbacks in the methodology of the study are cited but not fully explained. More details should be added.

Tables

Table 1: I would check the numbers of participants in each variable. For example, the total number of participants in the paracetamol group classified by age (63) is not the same than the total of participants classified by sex in the same group (52). It is the same for the placebo group.

Table 3: I suggest adding the results for the other covariates.
Are the methods appropriate and well described?  
If not, please specify what is required in your comments to the authors.  

Yes

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.  

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?  
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I am able to assess the statistics

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Please indicate the quality of language in the manuscript:  

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