Reviewer’s report

Title: Rapid cycling bipolar disorder is associated with antithyroid antibodies, instead of thyroid dysfunction

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Reviewer: P. V. S. Magalhaes

Reviewer's report:

1. The manuscript "Rapid cycling bipolar disorder is associated with antithyroid antibodies, instead of thyroid dysfunction" addresses an old issue regarding the relationship between rapid cycling and thyroid dysfunction in bipolar disorder. Despite its tridition, new work on this front has been scant, so investigating these associations in a large sample is wellcome.

1. It is unclear from the inclusion exclusion criteria how many patients were screened or refused to be included in the study. The authors state that the patients were inpatients or had been inpatients before, so it is not clear how they were recruited. Could they be recruited in any illness phase?

2. Rapid cycling was defined as four episodes in any given year during the patient's life? How was this established?

3. Was any kind of power analysis performed to establish the sample size needed for these comparisons? What was the authors' primary outcome?

4. The authors appear to leave out of multivariable analysis the patient's current state. This could be relevant, as antithyroid antibodies might be a marker of rapid cycling as a more enduring feature, but thyroid dysfunction per se could be related to state. In any event it would be useful to add current mood state as a covariable.

5. In the discussion, the authors both state that the sample is one of the largest ever and relatively small. A clear primary outcome would easily resolve this issue. All samples can be both large and small, depecting on what one whishes to analyze.

6. Finally, although people with rapid cycling are compared to people without this feature, the distinction can be subtle in some cases. Have the authors considered adding a control group consisting of people with other mental disorders or without mental disorders to further establish the specificity of the findings to bipolar disorder?

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.

Yes

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:

Needs some language corrections before being published

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