Reviewer's report

Title: Alterations of regional homogeneity in pediatric bipolar depression: A resting-state fMRI study

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Reviewer: MAKOTO ISHITOBI

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Summary: In this study, abnormalities of baseline brain functions in PBD patients with current depression episode was measured using the resting-state functional magnetic resonance imaging (fMRI). The present study suggests that extensive regions with altered baseline brain activities are existed in PBD-depression and these brain regions mainly locate in the fronto-limbic circuit and associated striatal structures.

General comment: Overall, this is an interesting paper that the authors suggest that extensive regions with altered baseline brain activities (such as the medial frontal gyrus, bilateral middle frontal gyrus and middle temporal gyrus) might reflect unique neuropathophysiological mechanisms underlying PBD-depression. The paper is well-written and the methods are almost appropriate. In my opinion, the content is appropriate for "BMC Psychiatry". I have some comments for improving this manuscript.

Major comment:

1. In the "Introduction" section, the authors describe that “Although many studies have focused on brain functional changes in BD patients, most studies have investigated adult BD, and relatively less research on PBD has been published”. In this paper, the fact that there are relatively less research on PBD using fMRI is one of the novelty. Nevertheless, the authors does not refer to these few studies about PBD-fMRI studies. No references are cited.

2. In this paper, the fact that fewer investigations have been conducted on BD patients that carefully stratify groups by mood states is another novelty. Nevertheless, the authors does not refer to these few studies, without citing references. The authors should refer to the details about these few studies.

3. In the "Introduction" section, the authors only described the general knowledge about resting state fMRI and only the Regional homogeneity (ReHo) method. The authors should describe clearly the reason of choosing the resting state fMRI method, especially for pediatric subjects. In addition, the authors should further describe past neuroimaging studies which investigated the brain function of child psychiatric disease (especially for mood disorder) using resting state fMRI. (For example, resting state fMRI method was useful for anticipating the response for treatment?) Without these information, readers cannot figure out the importance of this article.
Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, and I have assessed the statistics in my report.