Reviewer’s report

Title: Endocannabinoid receptor blockade reduces alanine aminotransferase in polycystic ovary syndrome independent of weight loss.

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Reviewer: Kok-Min Seow

Reviewer's report:

In this interesting paper, the authors have to investigate the impact of rimonabant (CB1 antagonist) on alanine aminotransferase. They have concluded that Rimonabant through CB1 receptor blockade decreased serum ALT that was independent of weight loss and hepatic inflammatory markers in obese women with PCOS without NAFLD.

However this paper cannot be published in the present form in the journal of BMC Endocrine Disorders, since there are several questions which have to be answered efficiently from the authors.

Materials and Methods:

1. No control study is the limitation of this study.
2. How do you exclude non-PCOS women in the PCOS group? Do you check the level of cortisol, TSH and etc. for a differential diagnosis?
3. What is the range of BMI in PCOS women?

Results:

1. Do you perform OGTT for PCOS and control? If yes, please provide the data of OGTT in both groups.
2. Please provide the data of quantitative insulin sensitivity check index (QUICKI) (Katz et al, J Clin Endocrinol Metab 2000; 85:2402-10) for the evaluation of insulin resistance in PCOS.
3. It is important to know the status of insulin resistance of PCOS and its relationship with CB1.

4. Is there any correlation between testosterone levels and reduction of body weight?

5. Table 2 should be deleted of its less important in this paper.

Discussion:

1. The author should explained the finding of "the reduction of the inflammatory marker hsCRP was only seen for pioglitazone and not for rimonabant".

2. Similarly, the phenomenon of ". all treatments reduced the FAI there was no correlation to changes in ALT.".

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?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.
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