Reviewer's report

Title: Association between brain-derived neurotrophic factor genetic polymorphism Val66Met and susceptibility to bipolar disorder: a meta-analysis

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Reviewer: Janusz Rybakowski

Reviewer's report:

In this review paper, the attempt was made to make a meta-analysis for a possible association between brain-derived neurotrophic factor (BDNF) genetic polymorphism Val66Met and susceptibility to bipolar disorder (BPD), including also recent case-control studies. The authors conclude that there is no compelling evidence supporting that the Val66Met polymorphism in BDNF gene plays an important role in the susceptibility to BPD across different ethnicities although there are some significant associations in Caucasian population. The meta-analysis was performed in appropriate way and the tables and figures are adequate. However, some amendments should be in place:

1. In view of the ethnic differences, the mean genotype distribution (Val/Val, Val/Met and Met/Met) in Caucasian and Oriental population should be presented.

2. As an example of ethnic differences, the association of this polymorphism with lithium prophylactic response may be given, with positive findings in Caucasian population (Rybakowski et al, 2005; Dmitrzak-Weglarz et al, 2008) and negative in Oriental ones (Masui et al, 2006).

3. In abstract (line 16-19) “association of Val66Met polymorphism” should be replaced with “association of Val allele”.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

None to declare