Reviewer’s report

Title: SOD2 gene Val16Ala polymorphism is associated with macroalbuminuria in Mexican Type 2 Diabetes patients: a comparative study and meta-analysis

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Reviewer: VenkataSaroja Voruganti

Reviewer’s report:

Ascencio-Montiel et al. report association of SOD2 gene Val16Ala polymorphism with macroalbuminuria in Mexican type 2 diabetes patients. Although the result is interesting, I have several concerns.

Major

Abstract:
• Conclusions should be toned down and talk about what was found in the study, such as ‘significant association was found between SOD2 Val16Ala polymorphism and macroalbuminuria and C allele was found to have protective effect against macroalbuminuria’. Although this polymorphism is a missense one, causal effect is not shown in this manuscript, therefore should not be mentioned in conclusions, okay to do so in discussion.
• Number of subjects with macroalbuminuria is much less than those with normoalbuminuria.

Discussion:
• The statement “our data strongly suggests that the significant results observed in the full dataset are not due to the presence of population stratification” is misleading. AIMs were available for only less than half of the sample (~45%) and cannot be generalized to the whole sample.

Minor
• Needs some grammatical corrections
• Statistical analysis: First sentence- Pearson tests are conducted for correlations between continuous variables and not for assessing group differences in categorical variables.
• Results: Number of normalbuminuria subjects is given as 882 instead of 875
• Results: Second paragraph, in the sentence, ‘Using an unconstrained genetic model, the genotypes CT and CC had lower odds ratios of…., it should be ‘macroalbuminuria’ instead of ‘microalbuminuria’.
• The word ‘higher’ for p values is confusing. Write them as stronger or weaker.
• P values and odds ratio can be restricted to two digits after decimal point.

Level of interest: An article whose findings are important to those with closely
related research interests

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

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

Declaration of competing interests:

I declare that I have no competing interests