Reviewer’s report

Title: Association of NOS3 gene polymorphisms with Essential Hypertension in Sudanese patients: a case control study

Version: 1 Date: 10 Jul 2017

Reviewer: Caitrin W. McDonough

Reviewer's report:

While the authors have addressed most of my comments, questions, and concerns, and the paper is much stronger and reads much better; there are still a few things that need to be addressed:

1) During the discussion of the SNP selection in the Methods section, the authors should include that the literature review to select the SNPs was conducted in 2011, and thus more recent SNPs associated with EH and NOS3 were not included. Currently the authors just justify the SNPs they selected, and make no comment as to why others were left out.

2) The results from the logistic regression analyses that include age, gender, and smoking as covariates should be shown, so that the reader can see that these factors are not influencing the results. Additionally, as BMI is different between the case and control groups, BMI should also be included as a covariate to adjust for.

3) In regards to the discussion of the linkage disequilibrium results in the results section, the authors need to also remove the statement "All comparisons showed statistical significance", or they need to explain further how they calculated this in the methods section. As once again, the statistical significance part of the LD analysis does not make sense to me.

4) While many of the limitations of the study have been addressed in other parts, there should still be a limitations paragraph included in the discussion. And this should include reference to the small sample size, potential lack of power, and then the differences between the case and control group (age, gender, BMI, smoking).

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.

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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