Reviewer's report

Title: Retinal capillary rarefaction in patients with untreated mild-moderate hypertension

Version: 0 Date: 30 Nov 2016

Reviewer: Wonsuk Yoo

Reviewer's report:

Dear Authors,

This is a well-written and designed manuscript to access capillary rarefaction of retinal vessels between hypertensive (n=134) and normotensive (n=55) subjects. This is an ancillary study to use patients who had participated in four randomized clinical trials that has been already completed. Here are my comments and critiques for this study:

1. The subjects come from four different clinical trials. So authors need to explain the similarities of patients characteristics among four clinical trials. Written explanation on exclusion/inclusion criteria and basic characteristics or constructing a table regarding basic characteristics for four clinical trials might be beneficial for readers to ensure homogeneity of your study population.

2. The study population is a sub-population selected/chosen from four different clinical trials. Thus, it might be informative to provide characteristics of patients from the study population and from whole four clinical trials in order to avoid selection bias issue.

3. This is an unbalanced study design between two groups and it's interesting for control group to show smaller size compared to hypertensive group. Authors need to explain why the study is unbalanced and the control group has smaller size.

4. It's appropriate to check normality assumption for the data using Kolmogorov-Smirnov test, but authors also need to check homogeneity between two groups because the study seems to be highly-unbalanced to apply independent t-tests.

5. Authors accessed retinal capillary density and flow measurements (ICD, CapA-, RCF) based on four different model options (non-adjusted, model 1, model 2, and model 3). But it's hard to read and understand texts and table 1 and 2. So you need to rewrite the results for better understanding purpose. In addition to this, authors also need to explain
implication of comparison (coefficients and p-values) of the measurements among four analysis types.

6. The reader might be confusing about what is new for this study. Authors might need to explain it in discussion section.

7. Minors/others: Line 36: delete OD

Regards,

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.

Unable to assess

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

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