Reviewer's report

Title: Choroidal Structural Changes Correlate with Severity of Diabetic Retinopathy in Diabetes Mellitus

Version: 3 Date: 05 Jul 2019

Reviewer: Siqing Yu

Reviewer's report:

This manuscript proposes to evaluate the correlation of choroidal thickness and choroidal vascular parameters with severity of diabetic retinopathy (DR) in diabetes mellitus (DM) patients. It reported the luminal to choroidal area was lower in DM patients than normal controls, but significantly increased with severity of DR. The reviewers provided very good advices to compare the choroidal vascular parameters between treated and non-treated patients. The current manuscript is interesting, but there are some concerns:

1. Abstract. Line 28. The authors probably mean RNFL thickness, but "thickness" is missing.

2. Abstract. Line 48. According to the result and table 3, the ratio of the luminal to choroidal area decreased with DR progression. However, the authors made a statement "Choroidal thickness and the ratio of the luminal to choroidal area significantly increased with severity of DR eye". Please verify the research data. This lead to entirely different conclusions.

3. Abstract. Line 53. This report is mostly about DR development but not recurrence. I recommend deleting "predict DR recurrence" in the conclusion for it is overstated.

4. Page 3. Line 49. The authors took the advice of the Reviewer 2 to replace the term "CVI" with "ratio of the luminal to choroidal area". However, the authors used "CVI" in the background, but "ratio of the luminal to choroidal area" is used in the method, and both of them in the discussion. This leads to some confusion. Could you combine these two terms in the introduction or methods part? I suggest to use abbreviation "L/C ratio" for "ratio of the luminal to choroidal area" and replacing all the "CVI" with "L/C ratio".
5. Page 6. "SCT" appeared for the first in the result. Please indicate this abbreviation in the method.

6. Page 9. Line 3. Are OCT acquired on the same day after PRP treatment? If not, could you give the interval between OCT acquisition and PRP treatment?

7. Page 9. Line 44. Please rewrite the sentence "Agrawal et al.[32] have demonstrated...." There is obvious grammatical mistake.

8. Page 10. Line 55. Please check the grammar in sentence "But LA were….."

9. Figure legend 1. Please change the abbreviation to SCT, since it is used elsewhere in the manuscript.

10. Table 1. 1) Could you also present the percentages of the categorical data in the table? 2) Please state which statistical test was used in the last footnote. Fisher's exact test and Chi-squared test are two different tests.

11. Table 2. 1) RNFL data in table 2 are not well presented. Please indicated what the numbers in/out of the brackets stand for. 2) I did not find how retinal thickness was measured in the method. Are they measured at 3 points or in average? Please add this information in the method. 3) Abbreviations can be used in the table since they are clarified in the footnotes.
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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