Reviewer’s report

Title: Changes in choroidal thickness and optic nerve head morphology after filtering surgery: nonpenetrating deep sclerectomy versus trabeculectomy.

Version: 2 Date: 29 Nov 2018

Reviewer: Reviewer 2

Reviewer's report:

REVISION ASSESSMENT FROM THE ACADEMIC PEER REVIEWER:

Has the author addressed your concerns sufficiently for you to now recommend the work as a technically sound contribution?

No

Reviewer comments: Authors perform a study to understand the changes in choroidal thickness and prelaminar tissue thickness in eyes undergoing glaucoma filtration surgery in the form of either trabeculectomy or nonpenetrating deep sclerectomy. I have certain reservations as shown below:

REQUESTED REVISIONS:

Abstract:

In the results, authors should provide the mean reduction in IOP at 1 month.

It is unclear whether the values reported by the authors are mean or median with interquartile range. Please clarify and make it clear in the abstract.

The correlation coefficient is a negative value. Does this mean that grater the increase in SFCT, the lower the drop in IOP? It will be better to reframe the sentence to clearly indicate the direction of this correlation.

The conclusion in the abstract should be based on the current study alone. Hence, the sentence "These structural changes may explain, at least in part, some severe complications of filtering surgery such as "wipe-out" syndrome or hypotony maculopathy" should be omitted from the abstract.
Introduction: Page 3, line 19-20, please replace the word "regarding" with "compared". Page 3, line 62, I suggest you change the word "chronic" to the word "gradual".

Methods: Definition of OPP is unclear. Do authors mean 2/3rd?

Was the OCT operator masked to the state of the eye i.e. preop vs. post op and to the type of procedure performed i.e. trab vs. NPDS? Without masking, bias may creep into the results.

Results:

Authors should take note that correlation does not mean association. Presenting beta coefficients following linear regression analysis is a much better of representing data than correlation coefficients. Regression will show changes in choroidal thickness and laminar parameters per unit change in age, axial length, IOP etc. Authors are requested to rework their statistics using linear regression and present outputs as beta coefficients with 95% confidence intervals and p value.

How was change in IOP defined? Was it IOP at 1month minus baseline IOP or vice versa? Similarly, how was change in SFCT and MCT defined? These should be defined in the statistics section. The graphs should be presented as locally weighted smoothening curves (LOWESS) to show variations in correlation at different SFCT and MCT.

Authors should present a graph showing the choroidal thickness (along with either std deviation, std error or 95% confidence interval) at the three time points for the two groups i.e. trabeculectomy and NPDS. Similarly, they should also present another comparative chart for the prelaminar tissue thickness.

Discussion: It is a good habit to list the main advantage of your study i.e. it is the first such study, at the end of the discussion, rather than at the beginning which the authors have done. Please move the first line of the discussion to the end of this section.

Since most patients had a very low IOP, how many developed serous choroidal detachment during the follow up?

Since authors postulate that both, increase in choroidal thickness and PFT are related to vascular changes, it may have been prudent to perform OCTA in these patients.
Authors discussion on the wipe out phenomenon appears far fetched based on the current study especially because OCTA was not done.

**Are the methods appropriate and well described?**  
If not, please specify what is required in your comments to the authors.

No

**Does the work include the necessary controls?**  
If not, please specify which controls are required in your comments to the authors.

No

**Are the conclusions drawn adequately supported by the data shown?**  
If not, please explain in your comments to the authors.

No

**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.

Not relevant to this manuscript

**Quality of written English**  
Please indicate the quality of language in the manuscript:

Acceptable

**Declaration of competing interests**  
Please complete a declaration of competing interests, considering the following questions:

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