Reviewer’s report

Title: Macular retinal and choroidal thickness in unilateral amblyopia using swept-source optical coherence tomography

Version: 0 Date: 01 Jul 2017

Reviewer: Adam Dubis

Reviewer’s report:

In their manuscript, Araki et al looked at the effect of different amblyopia types and assessed retinal and choroidal thickness using swept source OCT and image analysis. They found significant differences in in both retinal and choroidal hyperopic anisometropic but not strabismic amblyopia.

Comments

Page 4 Line 55 - The authors state that it has not been possible to use EDI imaging to measure average choroidal thickness. I believe this is likely a small grammatical error as there is an extensive literature on the topic. There are ethnic differences in EDI sensitivity, if the authors mean to reference this, please elaborate in the manuscript.

Page 6 Line 15 - Was there any ethnic variation in the study population, this is an important factor to be added either way.

Page 6 Line 28 - The authors acquire refraction and axial length data for the subjects, was this used to correct for retinal magnification? This is very important especially given the significant differences in eye size in this study. I strongly suggest the authors investigate correcting their data.

Page 7 Line 34 - Can the authors quantify the exclusion criteria? Please define how poor the contrast was between the choroid and sclera to be removed?

- How many scans were removed, is it possible there was unique information in this group? What was their retinal thickness like?

Page 8 Line 8 - The sentence should read 'anisometropic AND strabismic amblyopic eyes were'

- Given that photoreceptors serve as the initial stage of vision, it would be interesting to understand if there is any change in thickness for the photoreceptor layers.

- In the discussion, is it that the thickened GCL+IPL may scramble the photoreceptor signal as they were not properly pruned?
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.

Yes

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.

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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