December 12, 2014

Dear Editor,

Thank you for reviewing our paper and we appreciate your enlightening comments.

Please find enclosed the edited manuscript in Word format (file name: 13288-Review.doc).

Title: Review of Macular Ganglion Cell Complex Analysis Using SD-OCT for Glaucoma Assessment

Author: Amit Meshi, Dafna Goldenberg, Sharon Armarnik, Ori Segal, Noa Geffen.

Name of Journal: *World Journal of Ophthalmology*

ESPS Manuscript NO: 13288

The manuscript has been improved according to the suggestions of reviewers:

1. The introduction was edited, shortened and rephrased according to the reviewers' request.
2. A table comparing the various instruments was added (Table 1). The table is referred to at page 7, last paragraph subtitled as "Most commonly used SD-OCT instruments for glaucoma assessment".
3. A table summarizing the major studies that were reviewed was added (Table 2). The table is referred to at page 9, paragraph 3.
4. We were asked to elaborate on the subject: macular OCT in patients with end-stage glaucoma. A paragraph regarding SD-OCT in advanced glaucoma was added to page 14, paragraph 2. The value of macular OCT in advanced glaucoma was also discussed in page 17, paragraph 3.
5. The figures were labeled as requested, removed from the manuscript and are separately submitted.

Thank you again for publishing our manuscript in the *World Journal of Ophthalmology*.

Sincerely yours,

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Dear reviewers

We deeply appreciate your recommendations to publish our paper in the World Journal of Ophthalmology.

We would like to clarify the issue mentioned in your comment in order to explain our decision not to change the statement in the manuscript.

The comment:

“Is 'perimetric glaucoma' in following sentence 'pre-perimetric glaucoma' ? They showed that the mean SD-OCT GCC had a significantly higher diagnostic power than macular retinal thickness for both SD-OCT and TD-OCT in differentiating between perimetric glaucoma and normal eyes.”

Our answer:

In glaucoma, the structural injury usually precedes the functional injury. The classic diagnostic criteria of glaucoma include a characteristic functional loss documented in the standard automatic perimetry visual field (SAP- VF). Cases in which the structural injury in the optic nerve is not yet accompanied by a functional loss are defined as pre-perimetric glaucoma (PPG). The differentiation between perimetric glaucoma and normal eyes is sometimes challenging and even more so the differentiation between PPG and normal eyes. The OCT can be used to differentiate both perimetric glaucoma and pre-perimetric glaucoma from normal healthy eyes.

The reviewers comment regards the paper published by Tan et al (reference 39), which is mentioned in the second paragraph of page 11. Tan et al used both SD-OCT and TD-OCT to discriminate between normal eyes and those with perimetric glaucoma and not with pre-perimetric glaucoma. This is the reason for our decision not to change the sentence.

The paper also reviews the literature investigating the value of GCC SD-OCT in discriminating between normal eyes and those with pre-perimetric glaucoma.

As stated in the results section of the abstract:

“According to the literature, macular RGC/GCC SD-OCT has high diagnostic power of preperimetric glaucoma, reliable discrimination ability to differentiate between healthy eyes and glaucomatous eyes, with good correlation with visual filed damage. The current data suggests that it may serve as a sensitive detection tool for glaucomatous structural progression even with mild functional progression as the rate of change of RGC/GCC thickness was found to be significantly higher in progressing than in stable eyes. Glaucoma assessment with RGC/GCC SD-OCT was comparable with and sometimes better than circumpapillary retinal nerve fiber layer thickness measurement”.

We hope that this clarifies the subject and we wish to express once again our gratitude for accepting our paper for publication.

Sincerely,

Noa Geffen