Author’s response to reviews

Title: Precision and Agreement of Higher Order Aberrations Measured With Ray Tracing and Hartmann-Shack Aberrometers

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Version: 2 Date: 14 Nov 2017

Author’s response to reviews:

Dear editor:

Thank you for your attention to the present manuscript. Here all the questions and comments from reviewers were replied in detail below.

1. Although the HOA is largely influenced by the pupil size, But there is no comments about the pupil size of patient. The authors only mentioned that "aberrometer was measured based on the pupil of 4 mm without any treatment." There is no standard of the time of measurement and the illuminance of the room(where the measurement being performed) which can affect the pupil size. To assess the intrasession reproducibility of the HOAs measurements obtained by Topcon KR-1W and iTrace, observers should check the pupil size in each measurement time(by pupillometer) or mention the time of measurement or illuminance of the room. If you proceeded with this study without considering the pupil size it can commit a big error.

Response:

Thanks for your professional suggestions. Of course, we definitely considered the issue of pupil size, just because HOA is largely influenced by the pupil size. In the present study, all measurements were performed in a dark room (mentioned in measurement protocol section, Page 7, Line 9,) during 10 am-4pm (we added this part in measurement protocol section, Page 7, Line 17-18). In the software of Topcon KR-1W, the HOAs of 4-mm and 6-mm pupil diameters were
provided. Because 4-mm pupil diameter is more close to the natural pupil size compared to 6-mm pupil diameter, only the HOAs in the central area of 4-mm pupil diameter were collected for analysis (mentioned in introduction section, Page 5, Line 11 and instruments section, Page 6, Line 24).

2. Needs some language corrections before being published

Response:

Thank you for your suggestion. Yes, we did employ a professional scientific editing service by AJE as you recommended. 

According to the reviewer’s comments, we have revised the manuscript extensively. And we employ a professional scientific editing service by AJE as you recommended (Certificate Verification Key: 61D6-9EEE-129A-B9A4-F287). If there are any other modifications we could make, we would like very much to modify them and we really appreciate your help. BMC ophthalmology is a journal of great popularity and prestige. We hope that our manuscript could be considered for publication in your journal. Thank you very much for your help.

Your sincere:

Qiang Wu