Reviewer's report

Title: Macular Thickness Measurements in Healthy Norwegian Volunteers: An Optical Coherence Tomography Study.

Version: 1 Date: 29 January 2010

Reviewer: Rong- Kung Tsai

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This manuscript is a well-designed study to investigate the normal database of macular thickness in normal Norwegians, the results showed that there is no difference with previous study in white. Authors further tried to explore the gender, parity and age factors with results of macular thickness measurement. The normal database is not new; however, this study has addressed some interesting issues about hormone factors and macular thickness. Unfortunately, the case number enrolled is limited to answer these interesting questions and the conclusion is vague.

Major Compulsory Revisions:
1. Case number is limited to investigate the hormone effect and MMT in woman. This limitation should be addressed in discussion
2. Abstract Conclusion; " whereas age-matching of MMT data is not necessary." is not applied to the result" Mean foveal thickness (1 mm in diameter) was positively associated with age in females”. These descriptions are confusing, the conclusion should be revised.
3. Methods. P6 Pharmacological dilatation was not routinely applied because neither Koozekanani [1] nor Paunescu [2] found a significant effect of dilatation on any of macular thickness measurements----. A recent paper for this issue (not cited; J Glaucoma 2008;17:30–35) demonstrated that macular thickness measurements performed using OCT showed no significant differences before and after pupillary dilation Pupil dilatation is not a necessary procedure for Stratus OCT.
4. Discussion P13L1 “Since normal macular aging could represent a transition towards an EAMD, we speculate if increase in MMT could represent an independent risk factor for EAMD. Changes in MMT with age could occur earlier, to a larger degree, or more frequently in Norwegians. "---- This is too speculative and beyond the evidences provided by authors, take an example; it was not true for men in this study. These sentences should be revised or deleted.
5. Needs some language corrections before being published.

Minor Essential Revisions:
1. P4L4: There is inconsistency to whether MMT varies with age and gender in published papers. mean macular thickness (MMT)
2. P13 “supporting the a possible association between EAMD and hormonal
factors”—check English writing.
3. Table 3 Redundant sentence “For definition of macular regions see Fig.1.”, please check