Reviewer’s report

Title: Cataract subtype risk factors identified from the Korea National Health and Nutrition Examination survey 2008~2010

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Reviewer: Der-Chong Tsai

Reviewer’s report:

It’s a well-designed and well-written paper analyzing the data from the nationally representative survey to investigate the prevalence and risk factor for age-related cataract in the Korean population. Some questions regarding the subtype classification should be addressed.

1. Please describe how to classify those with different subtypes in each eye. Analyze separately, analyze the more affected eye, or put them into the mixed type?

2. As the authors mentioned, cataract detection and classification without pupil dilation is the major limitation of this study. Please further describe the impact of this limitation (ex, underestimation of cataract prevalence, misclassification of subtypes, ect)

3. The presence of cataract subtype seemed to be mutually exclusive in this study, which was not the same as previous population-based studies did. To avoid the confusion about the subtype definition when compared with other studies, please define each subtype more precisely in the method sections and use the terms “pure nuclear type”, “pure cortical type”, and “pure PSCO type”, instead of nuclear type, cortical type and PSCO type, in the Table 3.

4. The type of cataract was categorized according to LOCS III and each examiner had standard pictures (appendix fig1) in this study. Is the opacity level showed in this standard pictures the cut point used for the designation of the presence of cataract subtypes? Which grades of LOCSIII are those cut points similar to?

5. Please summarize the principal findings of the Table 4 in the Result section and explain the abbreviation in Table 4.

6. The title of Appendix Table 3 is not complete.

7. I am not sure about the pupil dilation “induced” by the setting of slit lamp as the authors described in the Method section. I suppose that the dimmer light may constrict the pupil less than the brighter one.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable
**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**
I declare that I have no competing interests.