Reviewer's report

Title: Biomechanical properties of the cornea measured with an Ocular Response Analyzer and its association with anterior segment parameters including corneal volume and anterior chamber volume

Version: 2 Date: 28 August 2013

Reviewer: Ioannis N. Petropoulos

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Minor Essential Revisions

1) The authors need to check and update abbreviations across the text: as an example it is Ocular Response Analyzer (ORA) and not ORA (Ocular Response Analyzer), line 21. There are abbreviations, which have been defined more than once in the text. On occasions, the correct format has been used e.g. lines 26-27.

2) The authors have correctly replaced the term “pentacam” with AST as they point out in their cover letter, but they need to ensure the changes are also reflected in the abstract. There are still parts e.g. abstract, line 26 which have not been updated.

3) Line 122, “were collected consecutively”, replace “got consecutively”.

4) Line 225, please replace “it may correspond to the fact” with “it may be due to the fact”.

5) Lines 248-259: the authors provide a detailed account of their future research plans but what they really need to do for the purposes of the present discussion is to make a suggestion for a future study regardless of who is conducting the study, e.g. “a future study should investigate the association between....”. In my opinion, formulas and hypotheses for a future study should not be presented in this discussion.

6) Lines 275-284: please summarize, do not repeat results, focus on the most significant findings.

Discretionary Recommendations

1) The aim of the study has been modified but there is still room for improvement. In my opinion, the authors should consider rephrasing to “…anterior segment parameters representing corneal geometric dimensions.” or “…anterior segment parameters representing geometric dimensions such as corneal volume and anterior chamber volume”.

2) The authors have correctly discussed the possibility of sample size and ethnic variations in lines 213-216. Perhaps they could replace the actual numbers
studied by others with a more general “smaller samples/groups patients”.

3) Lines 267-274: Please rephrase e.g. “A limitation of the study is the inclusion of young only patients who are not representative of the normal Korean population and may have caused selection bias. However, in another large-scale study, of the determinants of corneal biomechanical properties in an adult Chinese population, CH was negatively associated….”

**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.