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: 1 Date: 10 February 2013

Reviewer: Dimitra Makrynioti

Reviewer's report:

Major Compulsory Revisions
1. Abstract is missing.
2. In the Methods: exclusion criteria: What about Contact Lens use? How long were subjects without contact lenses before test performance? I think details on this are essential.
3. The aim of the study is clearly posed – I am not quite sure though that the answer is given clearly for the last phrase of the aim (lines 45-46: “and to determine what the CH and CRF really represent”). You could answer more clearly on this in your discussion or remove this phrase.

Minor Essential Revision
1. In the Methods: (line 59): How was the study sample size determined? Was there any power analysis performed? Please report if so.
2. In the Methods: (line 59): when/ during what period did these patients visited the Eye Clinic?
3. In the Results: (line 101): why special mention on male? Please explain – or give details on male & female.
4. In the Discussion: (line 144, line 153, line 156, line 162): I think it would be useful you to give possible explanations/theories on why do you think you found those results.
5. Clinical Significance/use useful to discuss.
6. If you rephrase your summary and especially lines 201-203 it may give better the conclusion of your work.
7. Please note: line 146, line 148, line 180: put full stop (.) after reference (e.g. line 146: "viscoelastic materials [8]." rather than “viscoelastic materials.[8]” ).

Level of interest: An article of limited interest

Quality of written English: Needs some language corrections before being published
Statistical review: No, the manuscript does not need to be seen by a statistician.