Reviewer’s report

Title: One-year natural course of corneal densitometry in high myopic patients after implantation of an implantable collamer lens (model V4c)

Version: 0 Date: 28 Jun 2019

Reviewer: Reviewer 2

Reviewer's report:

PEER REVIEWER ASSESSMENTS:

OBJECTIVE - Full research articles: is there a clear objective that addresses a testable research question(s) (brief or other article types: is there a clear objective)?

Yes - there is a clear objective

DESIGN - Is the current approach (including controls and analysis protocols) appropriate for the objective?

Yes - the approach is appropriate

EXECUTION - Are the experiments and analyses performed with technical rigor to allow confidence in the results?

Yes - experiments and analyses were performed appropriately

STATISTICS - Is the use of statistics in the manuscript appropriate?

Yes - appropriate statistical analyses have been used in the study

INTERPRETATION - Is the current interpretation/discussion of the results reasonable and not overstated?

Yes - the author's interpretation is reasonable
OVERALL MANUSCRIPT POTENTIAL - Is the current version of this work technically sound? If not, can revisions be made to make the work technically sound?

Probably - with minor revisions

PEER REVIEWER COMMENTS:

GENERAL COMMENTS: Authors perform a study evaluate changes in corneal transparency following ICL implantation in eyes with high myopia under the pretext that ICL causes endothelial cell loss and may thus influence corneal transparency. There are a lot of grammatical and english prose errors. My specific comments and critique are given below

ADDITIONAL REQUESTS/SUGGESTIONS:

My comments

In the abstract, authors must mention something about corneal clarity or that densitometry is a surrogate measure of clarity for better understanding by readers.

In the abstract, the first line of results is not understandable. Please mention about the indices in the methods of the abstract before introducing values in the results. There is no need for the f statistics in the abstract. Please omit these and retain the p values alone. Instead of F statistics, please mention the actual values of the densitometry in grey scale units in the abstract. Please avoid the term remarkably in the abstract. Also kindly mention whether the densitometry values increased or decreased in the 2-6mm annulus. The actual values (baseline and at 1 year, or a change (DELTA value) are absolutely essential in the abstract). Please provide some measures for the endothelial cell count in the study. The last line of the conclusion appears to be different from the results where there was significant change in the 2-6mm annulus in the anterior and central corneal depths. Please clarify.

Introduction: Authors mention that CD, as a surrogate for corneal transparency, is essentially dependent on the endothelial cell counts. However, they do not mention many other studies where CD measurements have been done on normal eyes as well as in eyes with high myopia and KC. In my opinion, the introduction should be CD centric and not ICL centric. The element of CD should be introduced first with mention of previous studies on the same subject.
Methods: Description of the efficacy and safety indices should be mentioned in the methods section. Also please provide a reference for these indices if used before in literature. Please provide a rationale for why the annular zones beyond the 6mm zone were not evaluated. This is important because the surgical incision falls in the peripheral zone and it may have been good to see how long it takes for the surgical incision to attain complete clarity, if at all. This is a major limitation and is rather inexplicable.

Results: Please start the results with the densitometry values since this is the main feature of the study. Rest of the outcome measures can be enlisted later. It appears that most of the changes are significant for differences between the CD at 1st postop day where the CD increased (indicative of surgically induced transient corneal haze) and later time points. This is expected and not at all alarming. However, the change was statistically significant. Authors do not address this finding adequately in the discussion at all.

Again in the discussion, please discuss results about the CD before everything else since that is the crux of the paper.

Please cite important references and discuss your results compared to the following:

1. Dong et al, Corneal densitometry in high myopia. BMC Ophthalmology 2018;18:182

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes
Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

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