Reviewer’s report

Title: Prospective comparative study of tolerance to refractive errors after implantation of extended depth of focus and monofocal intraocular lenses with identical aspheric platform in Korean population

Version: 0 Date: 22 May 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?
No - there are minor issues

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?

Maybe - with major revisions

PEER REVIEWER COMMENTS:

GENERAL COMMENTS: Authors compare bilateral implantation with EDOF IOL vs. monofocal IOL and study the tolerance to residual refractive error in the two groups. Though this is a good attempt, there are several key issues that need revisions, as shown below.

REQUESTED REVISIONS:

My comments

Abstract: In methods, authors should say whether this was a randomized or non-randomized study. In the results, please provide a head to head comparison of the distance, intermediate and near visual acuity in the two groups with p values.

In the results section of the abstract, authors should mention whether the first two lines are the overall results or particularly about one the groups, presumably the EDOF group. In the last line, of results, please provide the mean SE in each group in addition to the p values.

The conclusion mentions patient satisfaction, though there is no mention of this anywhere else in the abstract. The fact that the EDOF is more tolerant to residual refractive error is not at all a surprise and can be attributed to the design of the IOL.

Introduction: Authors do not provide any literature on whether similar studies have been done in the past. Even if not done, authors should highlight this fact i.e. a lacuna in literature in the introduction itself.

Methods: Please mention whether this was a non-randomized or randomized study, though the former appears more likely. Though appears to be no randomization, authors should have used a masking technique to improve the robustness of the study design.
Results: It appears that the postop spherical equivalent was twice as much in the EDOF group compared to the monofocal group. Is there an explanation for this? Did authors target a more myopic refraction in the EDOF group to compensate for the lack of good near vision which is well reported with the Symphony?

Results should be catered more towards comparison between the groups rather than the overall result. All tables should contain data from the EDOF and the monofocal group for comparison.

The discussion also needs to be more goal directed towards tolerance of refractive residuals by the EDOF and the technical and design reasons of why this may be. These points should be covered right at the beginning of the discussion.

Note: This reviewer report can be downloaded - see attached pdf file.

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

No

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

No

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:

Acceptable
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