Reviewer’s report

Title: Comparative Study of Wave-front Aberration and Corneal Asphericity after SMILE and LASEK for Myopia: a short and long term study

Version: 0 Date: 10 Jan 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 comparing SMILE and LASEK and report on long term outcomes. The study is novel and data is well analyzed.

ADDITIONAL REQUESTS/SUGGESTIONS:

My comments

Abstract: In the results, please provide the values for corneal Q, HOA, SA and peripheral corneal power in parenthesis for the 2 groups.

Please do not start a sentence with a numerical.

At 3 years, the differences in the SA were similar to 3 months results, it is surprising that, being a prospective study, authors do not report interim results at 1 and 2 years.

Introduction:

Referring to LASEK as essentially flapless is probably not advisable since there is an epithelial flap is created. Authors can reframe as "nearly flapless". Similarly, claiming that LASEK does not induce any HOA is also not correct. Please reframe.

In participants, please mention how the type of procedure was allocated to each patient. Assuming that this was not randomized, how did authors choose which patient gets SMILE and who gets LASEK? Even though not randomized, masking can be done in a prospective study. This can immensely improve the strength of the study. Please mention whether any masking was done during the follow up?

Have the authors measured the Q value for the posterior corneal surface as well?

Sample size calculation - authors assume a small difference between SMILE and LASEK which is good, but the standard deviation assumed is larger than the assumed mean difference which has shot down the sample size. Please provide a reference for these assumptions.

Did authors record patient related subjective symptoms during follow up? This may be substantiated the objective readings. Please acknowledge this as a limitation of the study if not recorded.

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.

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:

Acceptable

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