Reviewer's report
Title: Ocular biometric characteristics of cataract patients in western China

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Reviewer: Hun Lee

Reviewer's report:
The authors retrospectively measured ocular biometric characteristics in adult cataract patients from western China and the relationship between the ocular biometric characteristics in 8,580 eyes of 8,580 cataractous patients (8,580 eyes). The strengths of the paper include the large cohort of eyes and use of one eye from each subject.

Line 44: I was wondering that there have been some differences in the values of ocular biometric characteristics between eastern and western China. Due to some ethnicity, it might be expected that differences in the values of ocular biometric characteristics exist. Please provide your opinion on these issues in the discussion section.

Line 47: You included patients aged 20 years and older with cataracts. But, it would be appropriate that you include patients aged 50 years and older with cataracts and analyze again. Values from participants aged between 20 and 49 would affect and modify your results, which came from selection bias. So, I suggest to exclude the values from participants aged between 20 and 49 and re-analyze.

Line 65: Although the method of randomizing eyes by taking right eye measurements only is possible, I would suggest to fully randomize eye selection (right or left randomly) to further eliminate bias.

Line 82: In the Results section, please provide the cataract grading scale. Were there any differences in ocular biometric characteristics between severe and mild cataract patients or among patients with different type of cataract?
Line 138: Please provide the results for relationship between the ocular biometric characteristics and other variables such as manifest refraction spherical equivalent, age, autokeratometric values and etc, if available.

Line 156 and 306: Regarding the reference #10, did they also include relatively young patients with cataracts? I have an assumption that because your dataset had young myopic patients with very mild cataract, mean AL was longer in your results. You need to provide refractive error data to explain these results, if possible.

Line 165-166: Please provide appropriate references regarding that "patients with severe myopia tend to develop cataracts at a younger age and therefore require earlier cataract surgery" Do you really think that patients with severe myopia tend to develop cataracts at a younger age such as 20 or more, as described in your study?

Line 217: I suggest to delete "to over- or under-correct corneal astigmatism, especially in younger patients."

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.
No

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.
No

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.
Not relevant to this manuscript
Quality of written English
Please indicate the quality of language in the manuscript:
Needs some language corrections before being published

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