Reviewer’s report

Title: Evaluation of eye-related parameters and adverse events of rigid gas permeable contact lens and spectacles correction in infants with monocular aphakia after congenital cataract surgery: a retrospective clinical study

Version: 0 Date: 31 Jul 2018

Reviewer: Smith Chisholm

Reviewer’s report:

Methods:

--It needs to be specifically stated whether or not there were any PFV patients in group 3. I could not find anywhere in the paper whether or not there were any PFV pts in group 3. If there are PFV pts in group 3, I think it would be better to actually leave these patients out or create a group 4 for PFV pts with spectacle correction. Leaving these pts in group 3 would decrease the overall visual acuity gains in that group and possibly confound the results.

--May want to consider excluding all PFV pts and taking out group 2 from the paper as I do not think this adds much at all.

Results:

--I found figure 1 to be very confusing. This contains the most important data of the paper showing that group 1 is the only group with a statistically significant improvement in vision. I think it would be better to put this data in a table with pre-op and post-op vision along with statistical significance similar to the table for visual acuity results with and without patching. Seeing the actual visual acuity numbers would also be meaningful clinically.

--There is a lot of mentioning of results where one group is worse than the other and than claiming this is not statistically significant. Making any mention of differences between the groups that are not statistically significant leads to some confusion. Recommend simply saying that there was no significant difference and avoid highlighting any possible differences since the study was not powered to show these differences.

--I didn't think any of the figures added much information. The tables were much easier to read and contained more meaningful information.

--It is mentioned in the adverse events section that 2 pts in group 3 developed disease associated complications. If these complications would lead to expected decline in visual acuity, should consider excluding these pts as they could confound the data.
Conclusions:

--In the second paragraph (~line 39), make a claim "In the same age, group 3 and group 2 had lower visual acuity than group 1 and no significantly increased with age." I think the second part of this statement is supported by your statistics and should be the main thing emphasized. I believe the first claim is not statistically significant and should not be stated as a fact.

--Paragraph 4 talks about theories as to why one group or another has a faster axial growth rate. As there was no statistically significant difference between any of the groups, hypothesizing about differences is mute since technically you didn't show any difference between the groups.

General comments:

--I feel the most unique part of the paper is that RGPs were used instead of soft CTLs. I think it has already been established that CTLs provide better optical correction in patient's with monocular aphakia. Authors mention why they prefer RGPs to soft CTLs in the discussion. I think some mention of this in the introduction would also be good.

--In the future, consider a study comparing RGPs to soft CTLs so you can actually prove there are less complications and definite benefits to using RGPs.

--Should have native English speaker go through manuscript to clean up grammar and wording of several sentences.

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.

Yes

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.

I am able to assess the statistics
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Needs some language corrections before being published

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