Author’s response to reviews

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

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Version: 1 Date: 11 Dec 2018

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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

Answer: There were no PFV patients in group 3. We have explained in the “results” section. Thank you for your advice.

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.

Answer: After discussion, we did not delete the patients in group 2. Because RGPCL is increasingly accepted in China, more and more PFV patients have become the users of RGPCL. Currently, there are no reports on the use of RGPCL in PFV patients. We want to provide relevant reference information for this part of patients and doctors through our research. Thank you for your advice.

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.
We have represented the contents of the figure in a table. Thank you for your advice.

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.

We have revised the relevant statements to avoid confusion. Thank you for your advice.

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

We have represented the contents of the figure in a table. Thank you for your advice.

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.

The complications of these patients were shown in the table 5. No patients had the complications that can affect the visual acuity. Thank you for your advice.

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.

We have revised the relevant statements to avoid confusion. Thank you for your advice.

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.

We have modified this section and deleted some of it. Thank you for your advice.

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.
Answer: We added this in the “introduction” part. Thank you for your advice.

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.

Answer: We have added this part to the limitations of our research in the discussion, and we will conduct relevant clinical studies in the future. Thank you for your advice.

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

Answer: We have submitted the manuscript to a specialized agency for language modification and can provide certificates. Thank you for your advice.

Despite the fact that contact lens correction in monolateral aphakia offers a better vision, less aniseiconia and probably a much higher quality vision than the spectacle lenses explaining better VA in the first group, your article is not very convincing because of small number of cases: twice more cases with RGPCL than glasses cases, the high rate of drop out in both groups.

Answer: We have increased the number of cases in Group 3, but because at present in our hospital, IOL implantation or RGPCL are usually used for this type of patients, and frame glasses are not used unless the parents insist, so there are not many patients of this type. So we added 3 patients through retrospective data, so there were 15 patients in group 3. Although our patients have a high drop rate, we only count the probability of lens dropping. The lenses of these patients are generally not damaged. They will contact the doctor for the first time. They can continue to wear the lenses of these patients through strict disinfection. We keep a detailed record of the information. We think our data are convincing. Thank you for your advice.

In my opinion, compliance is very important in all groups and it is difficult to explain why no improvement was observed in children with glasses correction and good compliance.

Answer: By increasing the number of cases and retrospective data, we found that in group 1 and group 3, the visual acuity of patients with good occlusion improved significantly. Thank you for your advice.

Your patching algorithm seems to be not very realistic: 2 hours X patients age (in months) up to 12 months: meaning 22 hours of patching in a 11 month old child? Is it possible considering the child sleeps at least 10-12 hours by day at that age? What's the reason of patching 3 hours by day afterwards and to increase the patching time after 2 years as long younger age means better recovery...The patching time should be correlated with the time when the child is awake.
Answer: I think you may have made a mistake. In our article, patients younger than one year of age were covered for 2 hours a day. The reason why our covering time increases over time is that if the child is too young and the covering time is too long, the vision of healthy eyes may decrease, which is mentioned in the literature. With the increase of age, the possibility of visual impairment of healthy eyes due to occlusion decreases, so the occlusion time of healthy eyes can be increased. At the same time, our covering time refers to the covering strategy of The Infant Aphakia Treatment Study Group. In their study, patients less than eight months were covered for an hour a day, followed by children's average waking time. By combining the experience of our superior doctors and the observation of patients, too long covering time for 2-year-old children may also lead to a decline in healthy eyesight. Therefore, through the combination of literature and our own experience, this covering plan has been formulated. Thank you for your advice.

The statistics seem to not support very well your conclusion that "spectacles are not a valid alternative".

Answer: In our study, the visual acuity of group 3 patients did not increase with age, while the eye alignment increased at the end of the follow-up period. There was no improvement in nystagmus. In group 1, visual acuity, eye alignment and nystagmus improved. There was no significant difference in operation time between the two groups. So we think that we can conclude from our statistical data that frame glasses are ineffective. Thank you for your advice.

I would suggest to compare only children with good patching compliance in both groups and maybe to include more cases in your study. I would suggest also to compare the compliance to contact lenses to the spectacle compliance.

Answer: We have compared the corresponding contents and listed them in Tables 4 and 5. Thank you for your advice.

Finally, this is a retrospective study extended on a large period of time, there are no specifications regarding the follow-up period (min/mxa)

Answer: We have added the corresponding content in Table 1. Thank you for your advice.