Response to comments on: Comparison of three newer generation freely available intraocular lens power calculation formulae across all axial lengths

Dear Editor,

We thank Shrivastava *et al*.[1] for their insightful comments related to our recent publication.[2] We also appreciate their important work in this field,[3-5] and agree that newer generation interocular lens (IOL) power calculation formulae are gaining importance in recent times.

In response to the comments and suggestions made,[1] we would like to clarify as follows:

1. Regarding the formula used to implant the IOL in surgery not being mentioned, we would like to clarify that our study was retrospective in nature. The entire data collection and analysis were done on a subset of patients who were operated on prior to the start date of the study. Mentioning which IOL power calculation formula was used for surgery would have had no bearing on the results or outcomes of our study because we have clearly mentioned in our methodology that we used the three IOL power calculators once again to get the prediction errors of each formula.
2. We are in complete agreement with the fact that the absolute errors (mean absolute error [MAE], median absolute error [MedAE]) rather than the actual errors (mean error [ME], median error [MedE]) need to be compared to give an accurate assessment of formula superiority. We wish to remind the authors that it is precisely what we have done in our study; in fact, our primary outcome measure was to assess a significant difference between the absolute errors in the three formulae. This is reflected in our study conclusion also where we have mentioned that because there was no significant difference between the absolute errors in the three formulae, all three performed equally well with lens constant optimization. However, the reason why we have also mentioned about the differences between the ME and MedE is simply because we also wanted to test the recommended lens constants as provided by the online calculator of each formula. The following part of our text highlights this: "In our study, the reason why we have compared the formulae without optimization initially is because there are so many new formulae constantly being developed and at times it becomes difficult to optimize lens constants each time for different lenses. Hence for practical purposes, an ideal formula should be one which is accurate even without optimizing the lens constants."
3. Our method of lens constant optimization is in line with the method described by Wang *et al*.[6] where the ME for each eye is changed to zero. In our methodology, we have mentioned that the calculated ME was subtracted from the individual prediction errors for each eye to obtain a new data set with new prediction errors. This resulted new prediction error data set would have a ME of zero because the original ME was subtracted.
4. We agree that Cochran's *Q* test could have been used to compare the percentage of eyes within certain prediction errors for the three formulae. However, we wanted to use only one primary parameter to compare the three formulae, hence we decided to use the absolute errors as recommended by most of the studies. The percentage of eyes within a certain range was just used as a secondary parameter to support our primary outcome; hence its significance was not calculated.

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Conflicts of interest

There are no conflicts of interest.

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