

**Sir,
Comment on ‘Visual acuity and its predictors after surgery for bilateral cataracts in children’**

We read with great interest the recent article by Bonaparte *et al*¹ regarding the visual acuity and its predictors after surgery for bilateral cataracts in children. We would like to make the following comments on this article.

The mainstream study supported that timely cataract surgery in infants decreases the risk of developing resistance to amblyopia treatment and increases optimal potential visual functions. However, Bonaparte proposed that age <1 year at the time of cataract extraction was associated with poor postoperative visual acuity. Several reasons may account for this discrepancy. First, the majority of the patients having cataract extraction <1 year are more likely to have severe cataract types (for example, total cataract, diffuse cataract). These types of cataract occur during infancy, which is the sensitive and critical stage in visual development causing high risk of amblyopia.² Therefore, the types of cataract instead of the surgical timing might be the underlying mechanism for the poorer vision among individuals who underwent cataract extraction at age <1 year. Meanwhile, recent studies have demonstrated that early cataract surgery is associated with high risk of secondary glaucoma and severe posterior capsular opacification.³ These potential postoperative factors might be another important reason for the poor vision among patients with early cataract surgery.

This study also reported that absence of primary IOL placement is associated with poor postoperative visual acuity. We suggest that these results should be interpreted cautiously. Children born with visually significant cataract tend to have earlier surgery, leading absence of primary IOL placement because of their overall less developed eyes. The aphakic infants will suffer from higher risk of secondary glaucoma, causing poorer vision.⁴ The patients with developmental cataracts will have later surgery with primary IOL placement. It would be better to put the type of cataract, surgical timing, and IOL implantation together to see their interrelationship with long-term visual acuity. We presume that the occurrence of primary IOL implantation is highly correlated with the surgical timing and thus will affect the visual prognosis.

We sincerely appreciate Bonaparte and colleagues for their remarkable contributions to the study of preoperative predictors for pediatric cataracts. However, the conclusion might be more powerful and valuable for uncovering the underlying relationship between related factors and visual acuity if the study could further consider the types of cataract and postoperative factors.

Conflict of interest

The authors declare no conflict of interest.

Author contributions

Erping Long wrote and revised the manuscript; Peixing Wan and Yehong Zhuo revised and approved the manuscript; and Yehong Zhuo is the manuscript's guarantor. The authors affirm that the manuscript is an

honest, accurate, and transparent account of the study being reported; that no important aspects of the study have been omitted; and that any discrepancies from the study as planned (and, if relevant, registered) have been explained.

References

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**Sir,
Reply to: ‘Comment on Visual acuity and its predictors after surgery for bilateral cataracts in children’**

We would like to thank Long and colleagues for their comments on our paper, ‘Visual acuity and its predictors after surgery for bilateral cataracts in children.’¹ In our study, surgery at <1 year of age yielded poorer visual outcome in eyes operated for cataract surgery in both eyes. In addition to type of cataract and surgical timing, location of opacity in the lens is an important factor influencing visual outcome. Even during the first few months of age, a cataract located anteriorly is less amylogenic as compared with a cataract located posteriorly. We agree with Long and colleagues that children who undergo cataract surgery at an earlier age are at a high risk for secondary glaucoma and severe posterior capsule opacification (PCO). With that said, in our series, glaucoma can be a reason for poor visual outcome. However, we typically remove visually significant PCO as soon as it is detected and we follow our surgery patients very closely during the early postoperative period. So, PCO would be less likely to be a reason for poor visual outcome.

In our study, multivariate analysis of factors associated with poor acuity as dichotomous outcome revealed that absence of primary IOL placement is associated with poor postoperative visual outcome. As stated in the