Author's response to reviews

Title: Late-Onset Secondary Pigmentary Glaucoma Following Foldable Intraocular Lenses Implantation in the Ciliary Sulcus: A Long-term Follow-up Study

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Editors, BMC Ophthalmology

Dear editors,

We are pleased to submit our manuscript, entitled “Late-onset pigmentary glaucoma following foldable intraocular lens implantation in the ciliary sulcus: a long-term follow-up study”, for consideration for publication in the BMC Ophthalmology.

Pigmentary glaucoma has been reported in patients who have undergone posterior chamber intraocular lens (IOL) implantation during cataract surgery, especially when the IOL was implanted in the ciliary sulcus following rupture of the posterior capsule. Most reports regarding the development of secondary pigmentary glaucoma following the implantation of a foldable IOL in the sulcus are either case reports or small case series. The follow-up periods over which patients in these studies were monitored are generally short, and most of the patients involved in the aforementioned prior studies are Caucasian. The present article aims at the long-term outcomes of intraocular pressure (IOP) elevation and secondary pigmentary glaucoma following the implantation of single-piece foldable IOLs in the ciliary sulci of a group of Chinese patients. Both acute-onset and late-onset pigmentary glaucoma following the placement of an IOL in the ciliary sulcus are examined.

Our study has shown that secondary pigmentary glaucoma accompanying the implantation of a foldable IOL in the ciliary sulcus may present as an acute IOP elevation during the early postoperative period in a small percentage of patients (21%). Late-onset IOP elevation with glaucomatous optic nerve damage was observed in the majority of the cases in our study (79%). In addition, some cases may have normal
IOPs or may present with transient IOP elevations during the initial postoperative period as a result IOP control via the use of anti-glaucoma medication. If these patients ceased attending follow-up visits, they could develop chronic glaucomatous optic nerve damage at a later date. Despite the use of medications to control IOP, large IOP fluctuations were noted in 64% of the cases in our. This observation may be related to changes in the position of the IOL within the sulcus, and surgical interventions are necessary to control the IOPs in the eyes of in these patients. Despite the use of various treatments, the visual prognoses for these patients are poor. Therefore, the implantation of a foldable IOL in the ciliary sulcus may pose a risk of developing pigmented glaucoma, and performing this procedure after the rupture of the posterior capsule during a cataract surgery is not recommended.

This paper has not previously been submitted to any other journals. We have full access to all of the data that are included in the study, and we take responsibility for the integrity of the data, the accuracy of the data analysis, and the decision to submit this manuscript for publication. The present study has not appeared in any other publications in whole or in part. There are no authors other than those listed on the title page of this manuscript. None of the authors listed in the study has any conflicts of interest to report.

Our study provides important information regarding the association between the development of pigmentary glaucoma following cataract surgery and the placement of a foldable IOL in the ciliary sulcus. We hope you deem this paper worthy of publication in the BMC Ophthalmology.
Sincerely,

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