Comment on: Congenital iris coloboma repair with excision of colobomatous sphincter muscle

The innovative method proposed by Ogawa allows better pupil centration and shape after congenital iris coloboma repair, and as highlighted in the article, cataract surgery alone in patients with iris coloboma may lead to poor quality of vision.1 This is because the edge of the intraocular lens (IOL) optic bisecting the colobomatous area may lead to postoperative monocular diplopia, and late upward decentration of the IOL may occur because of fibrotic contraction of the capsular bag.2,3 To overcome these problems, we propose a new surgical technique of inferior-decentered retropupillary fixation of an iris-claw IOL at the 4- and 8-o’clock position to cover the whole colobomatous area inferiorly. This technique ensures complete coverage of the inferior colobomatous area to avoid monocular diplopia and may also provide stable IOL configuration as the lens is tucked tightly to the iris. Although various methods have been proposed for overcoming the problem of monocular diplopia, such as iris suturing, artificial iris with IOL implantation, or keratopigmentation, these methods can be associated with significant intraoperative trauma and postoperative hypHEMA and inflammation and can diminish the view of peripheral fundus, thereby complicating future vitrectinal surgery or laser treatment, if required, whereas, an inferiorly decentered retropupillary-fixated IOL allows sufficient pupil dilation for posterior segment examination and treatment; furthermore, this technique is less time-consuming and has a small learning curve.1,4,5

This technique was used in a 42-year-old patient with unilateral congenital complete iris inferior coloboma, cataract, and type III choroidal coloboma, with a visual acuity of counting fingers close to the face. Small-incision cataract surgery was performed under peribulbar anesthesia, and vitreous was noted in the anterior chamber after nucleus delivery and aspiration of the cortical matter; thereafter, pilocarpine was injected, and automated anterior vitrectomy was performed. Subsequently, an Artisan (Ophtec BV) iris-claw IOL was inserted into the eye and enclaved at the 4- and 8-o’clock position with the help of a Sinskey hook (Videos 1, available at http://links.lww.com/JRS/A359). This ensured that the optic of the IOL was decentered inferiorly and covered the entire colobomatous area (Figure 1). After 1 month, the corrected distance visual acuity was 20/40, and the patient was comfortable with no complaint of diplopia.

The major limitation of this technique is that the decentered IOL optic may increase sphero-cylindrical aberrations and coma and, thus, can lead to increased glare sensitivity and halos, which can make night driving difficult and can be only partially corrected by wearing sphero-cylindrical spectacles. Thus, standard surgical management should include bridging of zonular coloboma by capsular tension ring and the iris coloboma with an iris-shield capsular tension ring or an artificial iris sector, which will restore the normal appearance and cosmesis of the iris. However, this technique can be a viable option for selected cases with aphakia and reduced visual potential or when more sophisticated surgical resources are lacking. Further studies are recommended before establishing this technique as safe and effective.

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REFERENCES

Disclosures: None reported.