

TECHNICAL TALK

RECURRENT UGH SYNDROME IN AN EYE WITH A SCLERAL-FIXATED IOL

What to do when medical management is not enough.



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A 72-year-old white man was referred with uveitis-glaucoma-hyphema (UGH) syndrome in an eye with a scleral-fixated three-piece IOL. Before the onset of his complicated surgical course, the patient had a BCVA of 20/20-1 in the left eye after removal of an epiretinal membrane. However, his IOL later dislocated and he underwent sutureless intrascleral posterior chamber IOL implantation of an AcrySof Multipiece MA60AC lens (Alcon).

Postoperatively, the patient developed UGH syndrome with vitreous hemorrhage. His IOP reached as high as 62 mm Hg on Goldmann applanation tonometry. Anterior segment ultrasound biomicroscopy (UBM) demonstrated optic tilt resulting in iris chafing (Figure 1). Topical medication was used to control his IOP, and the scleral-fixated IOL was repositioned 1 mm posterior to the previous location.

Postoperatively, the patient developed persistent anterior uveitis despite use of a combined tobramycin and dexamethasone drop four times daily. His IOP was controlled at 11 mm Hg using timolol, brimonidine, and bimatoprost.

NEXT STEPS

UGH syndrome recurred, and the IOL remained malpositioned, with UBM demonstrating optic tilt with iris contact (Figure 2). In determining how to proceed, we considered the following questions:

- When is medical management the conclusive treatment for UGH syndrome?
- What prompts the consideration of surgical management in UGH syndrome?
- What is the preferred surgical approach for UGH syndrome secondary to iris chafing?

SURGICAL COURSE

UBM studies have shown that UGH syndrome is associated with IOL malpositioning.¹ Optic tilt of scleral-fixated IOLs is associated with higher complication rates.² It is thought that vitreous incarceration at the haptics and iris contact by the IOL optic are the causes of the chronic inflammation.³

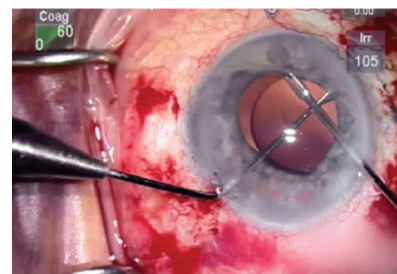
Several strategies for surgical remediation of UGH syndrome in these situations have been described. UGH syndrome is the cause of 10% of IOL

exchanges.⁴ Lenses can be repositioned in the sulcus without sutures in 38% of cases.⁵ When other techniques fail, one can also consider iris fixation.⁶ The iris-fixation technique we used in the current case is described below.

Step-by-step technique. In surgery, the IOL was removed from the scleral tunnels and repositioned using a modified McCannel iris-fixation technique (see *Watch It Now*). With this technique, the conjunctiva is dissected away from the limbus using blunt Westcott scissors in the areas corresponding to the scleral tunnels. A standard incision scalpel is used to de-roof the scleral tunnel and expose the first haptic.

▶ WATCH IT NOW ◀

IOL Repositioning and UGH Syndrome



▶ [HTTP://EYETU.BE/UURWGIH](http://eyetu.be/uurwgiH)

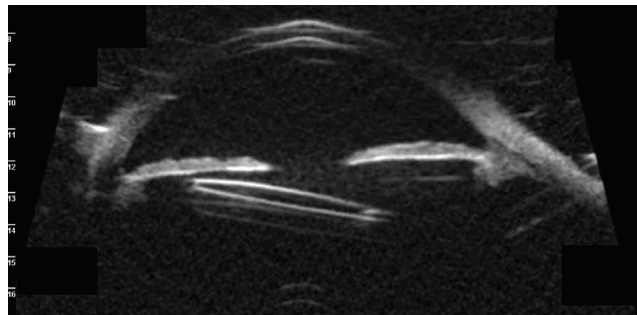


Figure 1. Preoperative UBM imaging showed a malpositioned scleral-fixed IOL causing UGH syndrome.

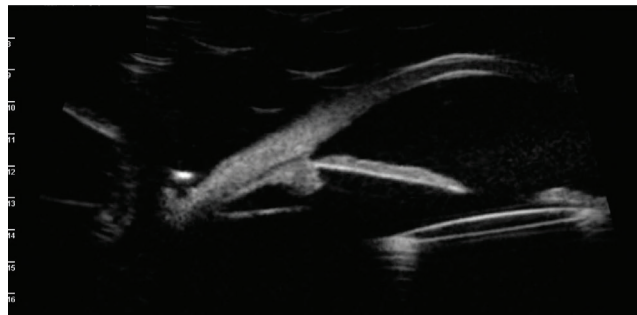


Figure 2. UBM showed persistent scleral-fixed IOL optic-iris contact causing UGH syndrome. Ciliary body edema can also be appreciated.

A stab incision is used to create a paracentesis at the limbus. Next, the anterior chamber is filled with an OVD such as Healon (Johnson & Johnson Vision). A second limbal paracentesis is then fashioned, and microforceps (DORC) are passed through this incision and across the anterior chamber to grasp the haptic located posterior to the iris on the opposite side of the eye. Steady traction is applied to release the haptic from the scleral tunnel.

A spatula is passed posterior to the optic for support, and, with the microforceps still grasping the haptic, the spatula is used to apply anterior force on the optic. The optic is prolapsed forward until pupillary capture is achieved. The second haptic is similarly released from its scleral tunnel. Once full pupillary capture is achieved, the optic rests in the anterior chamber while both haptics stay apposed to the posterior iris surface.

A 10-0 polypropylene (Prolene) suture on a long, curved CIF-4 needle (Ethicon) is used to execute the modified McCannel technique. Two clear corneal paracentesis stab incisions are placed along the path of insertion that the needle will make. The CIF-4 needle is then passed through the mid-iris stroma, underneath the haptic, back through the iris stroma into the anterior chamber, and out through the limbus on the opposite side of the cornea. Both sutures are placed before either needle is removed completely from the eye and cut from the 10-0 polypropylene suture.

CONCLUSION

This patient's UGH syndrome resolved after repositioning the scleral-fixed IOL with iris fixation. UBM demonstrated

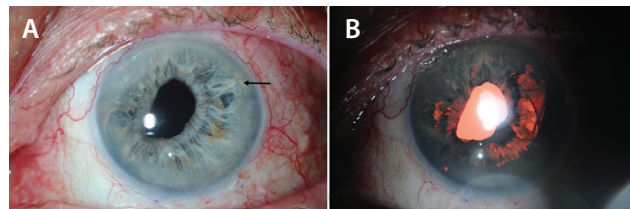


Figure 3. Postoperative anterior segment photographs: Black arrow indicates the position of a visible iris suture (A). Retroillumination image of the same eye demonstrated previous iris transillumination defects (B).

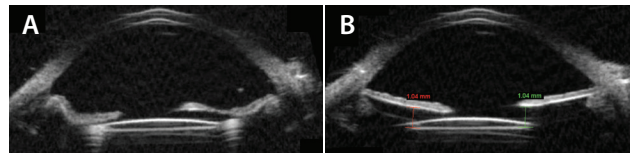


Figure 4. Postoperative UBM showed a well-centered lens. UBM directed in the plane of the iris sutures demonstrated the apposition of the IOL to the posterior iris (A). UBM portrayed the optic in good alignment relative to the posterior iris with minimal tilt (B).

absence of optic tilt, with uniform vaulting of the optic away from the iris (Figures 3 and 4). No adverse events have been noted now at 1 year after IOL repositioning using the technique described. The patient's final visual acuity was 20/20. ■

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