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A Case of Uveitis-Hyphema-Glaucoma Syndrome due to ExPRESS Miniature Implantation

Andrew Hou
Henry Ford Health System, ahou1@hfhs.org

Madeline Hasbrook
Henry Ford Health System

David A. Crandall
Henry Ford Health System, dcranda1@hfhs.org

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Andrew Hou MD, Madeline Hasbrook MD, David Crandall MD
Department of Ophthalmology, Henry Ford Health System, Detroit, Michigan

Purpose

To report a case of a 69-year-old patient who developed uveitis-glaucoma-hyphema (UGH) syndrome after an uneventful ExPRESS (Alcon, Fort Worth, TX) mini shunt surgery for advanced primary open-angle glaucoma. To our knowledge, this is the first case report describing glaucoma device induced UGH syndrome and its successful treatment with laser iridoplasty.

Background

Given the increasing prevalence of surgically-implanted glaucoma devices, it is important to recognize UGH syndrome as a rare complication that if untreated, may jeopardize long-term outcomes.

Traditional UGH syndrome is surgically treated as the mechanical friction of the IOL cannot be relieved with topical steroid medication and IOP lowering therapy. However, with glaucoma implants, reoperation should be a last alternative as the risk of postoperative scarring and inflammation may result in failure of the device and further progression of glaucoma.

Treatment

Iridoplasty was performed with 400-millisecond duration, spot size of 250 microns and laser power of 400 milliwatts. Forty total spots were treated around the shunt and visible contraction of the iris from the shunt was noted.

Results

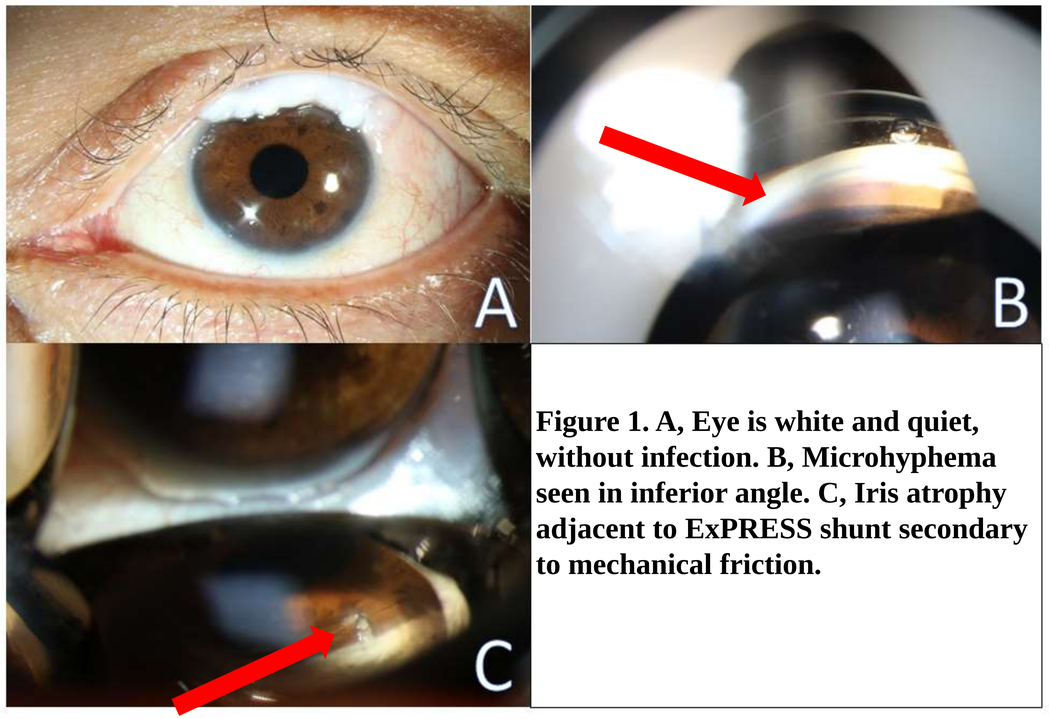

Figure 1. A, Eye is white and quiet, without infection. B, Microhyphema seen in inferior angle. C, Iris atrophy adjacent to ExPRESS shunt secondary to mechanical friction.

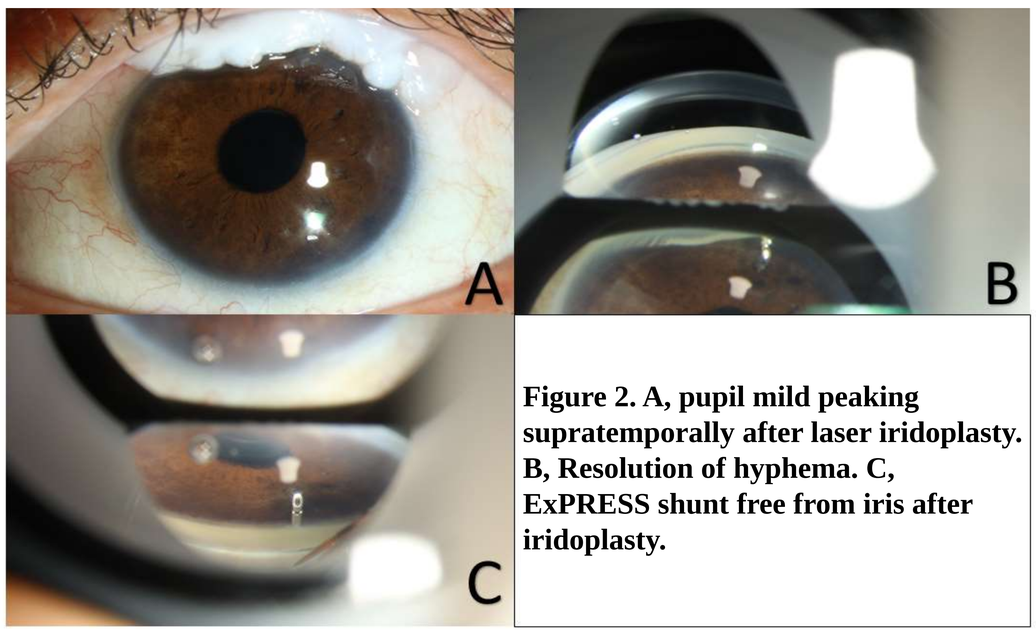

Figure 2. A, pupil mild peaking supratemporally after laser iridoplasty. B, Resolution of hyphema. C, ExPRESS shunt free from iris after iridoplasty.

Discussion

We believe etiology for the UGH syndrome the significant iridodonesis seen on gonioscopy. In the interim between surgery and presentation, the patient had been prescribed tamsulosin for his benign prostatic hyperplasia.
Tamsulosin has been well established as the cause of intraoperative floppy iris syndrome secondary to iris dilator atrophy.

Our patient was not noted to have intraoperative floppy iris syndrome during his glaucoma surgery nor subsequent cataract surgery, indicating his iridodonesis likely developed after both surgeries and may have been the precipitating factor for his UGH syndrome.

Conclusion

As options for glaucoma implants continue to grow, one may expect that the number of glaucoma-device induced UGH syndrome may become a more prevalent complication.

Novel targeted procedures such as focal laser iridoplasty or even surgical iridectomy may be options to treat shunt induced UGH syndrome.

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Contact

Email: ahou1@hfhs.org