



The Annual ACES/SEE Caribbean Eye Meeting delves into hot topics for anterior segment surgeons and health care professionals.

From February 5 to 8, 2021, the upcoming Caribbean Eye Meeting promises to be as engaging as in previous years. This one-of-a-kind meeting, held at Hyatt Regency Grand Reserve in Puerto Rico, will gather well-known leaders in ophthalmology to discuss important topics in eye care against the breathtaking backdrop of the Caribbean Sea. The American College of Eye Surgeons (ACES) and the American Board of Eye Surgery (ABES) were started in 1989, with ACES as the educational arm. ACES and ABES, along with the Society for Excellence in Eyecare (SEE), are proud to be entering the 31st annual meeting! Together, ACES, ABES, and SEE share a commitment to the belief that the primary focus for today's ophthalmologist must, and should, be to promote, encourage, and enhance quality ophthalmic surgical care for the benefit of all patients.

PEARLS FROM THE DEEP: HOW DOES THE LIGHT ADJUSTABLE LENS PERFORM IN EYES WITH UNUSUAL CORNEAS?



By James Lehmann, MD

The Light Adjustable Lens (RxSight) became commercially available in the United States in 2019. My partner Kenneth

Maverick, MD, and I sought to measure the refractive accuracy of this IOL in eyes with unusual corneas, which we defined as those with scarring from trauma or pterygium, keratoconus, or a history of incisional refractive surgery such as radial keratotomy (RK), PRK, or LASIK combined with astigmatic keratotomy.

This area of study interests us because so many patients with unusual corneas are referred to our practice. It is challenging to ascertain the true corneal power in these eyes. Small optical zones, irregular astigmatism, and discrepancies between anterior and posterior corneal curvature can produce inconsistent topographic measurements and keratometry readings, which in turn can make refractive results unpredictable.

A recently published prospective study compared the accuracy of intraoperative aberrometry with preoperative biometry for predicting residual refractive error

after cataract surgery in post-RK eyes. The investigators found that the percentage of patients within ± 0.50 D of target was 63.5% with the Barrett True-K formula and 48% with intraoperative aberrometry.¹

Our retrospective review included 23 eyes of 16 patients. A majority of the eyes (16) had undergone RK, two had keratoconus, two had undergone LASIK combined with astigmatic keratotomy, and one had undergone conductive keratoplasty. The main endpoints of our study were the percentage of eyes within ± 0.50 D of target and the mean absolute error. Follow-up lasted 2 to 4 months after cataract surgery with IOL implantation.

Of the 23 eyes, 22 (95%) achieved a refractive outcome within ± 0.50 D of target, and the mean absolute error was 0.25 D. Of the 16 post-RK eyes, 15 (94%) achieved a refractive outcome within ± 0.50 D of target, and the mean absolute error was 0.31 D. Our outcomes were superior to the results with intraoperative aberrometry and current IOL formulae reported in the aforementioned published study.¹

Diving deeper into our data, we found that our results were more in line with

those reported in the literature before we adjusted the Light Adjustable Lens, with 50% of post-RK eyes within ± 0.50 D of the refractive target and a mean absolute error of 0.97 D. The adjustment process, which occurs 2 to 4 weeks after surgery, allowed us to adjust patients' results closer to emmetropia.

Although our data are limited by sample size and follow-up time, they indicate that the Light Adjustable Lens works well in eyes with unusual corneas. We will present longer-term results on more patients at future meetings.

Editor's note: The implantation of the Light Adjustable Lens in an eye with keratoconus or a history of corneal surgery is considered to be an off-label use.

1. Curado SX, Hida WT, Vilar CMC, et al. Intraoperative aberrometry versus preoperative biometry for IOL power selection after radial keratotomy: a prospective study. *J Refract Surg.* 2019;35(10):656-661.

JAMES LEHMANN, MD

- Private practice, Focal Point Vision, San Antonio, Texas
- lehmann@focalpointvision.com
- Financial disclosure: Research (Glaukos, Johnson & Johnson Vision, RxSight), Shareholder (RxSight), Speaker (CorneaGen, Johnson & Johnson Vision)

To learn more about the 2021 Caribbean Eye Meeting and register to attend, visit

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