

As would be expected, monocular UDVA improved significantly from preoperative: 45% of eyes achieved 20/20 or better UDVA at 1 month postoperative. CDVA was 20/20 or better in 89% of eyes. Also at 1 month, monocular UIVA at 80 cm was 20/32 or better in 56% of eyes and 20/40 or better in 83% of eyes. DCIVA at 80 cm was 20/32 or better in 56% of eyes and 20/40 or better in 81%. DCIVA was also measured at 66 cm, at which distance 35% of eyes achieved 20/32 or better and 68% achieved 20/40 or better.

These data show that the IsoPure 1.2.3 can provide high-quality UCVA at both distance and intermediate lengths, and our results indicate that patients can see well from 77 cm to infinity.

Also at 1 month postoperative, the defocus curve (Figure 8) and contrast sensitivity were as expected. That is, the defocus range for visual acuity of at least 20/32 was -1.10 to 0.70 D, and contrast sensitivity for both photopic and mesopic was within the normal range for patients in this age group.

CONCLUSION

As with any new technology, longer follow-up in a larger number of eyes is warranted. For now, I look forward to using the IsoPure 1.2.3 in many more patients to provide them with increased depth of focus.

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EDOF lenses have been found to be associated with fewer halos and less contrast sensitivity loss than traditional multifocal IOL technology.¹ In the overall range of available IOL technologies, EDOF lenses appear to fit somewhere between monofocal and trifocal IOLs.

The Lucidis T IOL (Swiss Advanced Vision), launched during the 2019 ESCRS meeting, is a one-piece, foldable, multizonal refractive-aspheric bifocal toric EDOF IOL with closed C-loop haptics. It is designed for capsular bag implantation and made of a hydrophilic acrylic material with 26% water content.

LUCIDIS T

Eyes with astigmatism can benefit from this lens' extended depth of focus technology.

Spectacle independence after cataract surgery is probably one of the most frequently expressed patient desires that cataract surgeons hear preoperatively. Many solutions are available, including a wide range of IOL choices. EDOF IOLs are among the new categories of lenses we can offer patients for relief from presbyopia.

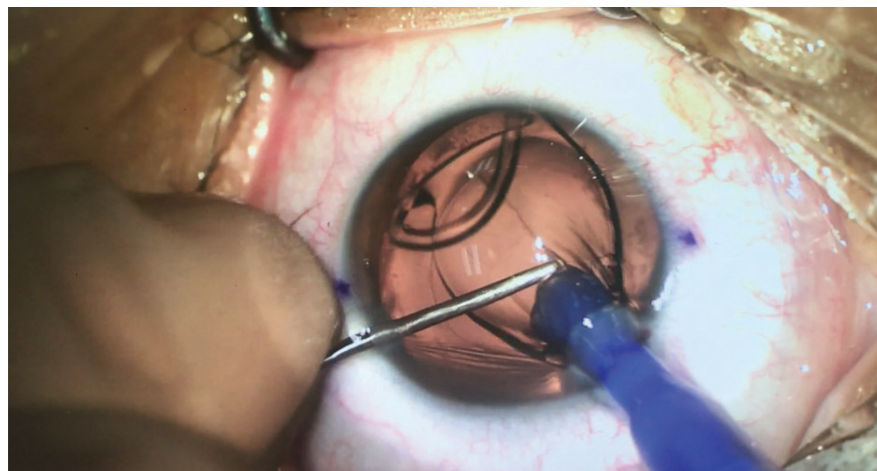


Figure 9. During Lucidis T IOL implantation, a manipulator is used in the nondominant hand.

Figures 9–11 courtesy of Elie Motulsky, MD, PhD, FEBO

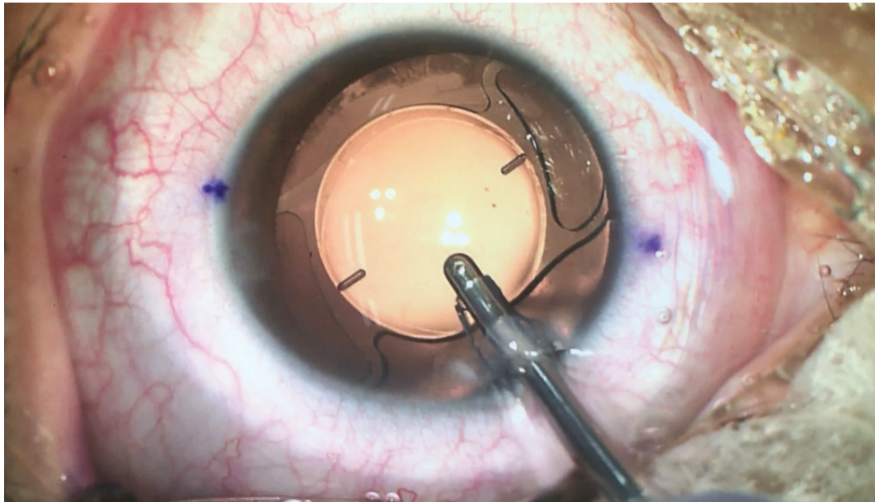


Figure 10. The Lucidis T IOL is aligned to target axis during irrigation and aspiration.

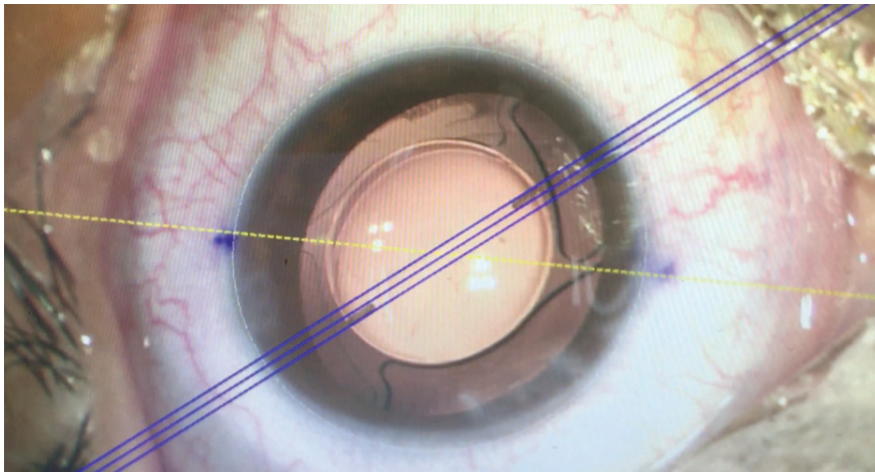


Figure 11. The IOL remains aligned to the target axis after the I/A instrument is removed at the end of the surgery.

The EDOF technology of the Lucidis T IOL uses a 1-mm central aspheric zone surrounded by a 5-mm refractive ring. The lens is available in a power range from +5.00 to +30.00 D and a cylinder power range from +1.00 to +4.50 D. According to the manufacturer, the main benefit of this particular design is to provide additional visual comfort at near and intermediate distances.²

CLINICAL EXPERIENCE

In our experience, the Lucidis T IOL technology seems to allow us to meet our promises to patients. That is, most of our patients who receive this lens

report additional comfort at near and intermediate distances after cataract surgery. Further, with the Lucidis T IOL we have not encountered any centering problems, and no rotation of the IOL has been noted in our series to date.

We like to inject the implant using a manipulator in the other hand in order to provide stability, to maintain a constant IOP, and to give us the ability to manipulate the IOL at any time during unfolding (Figure 9). Rotation of the IOL into position is easy. Even though the lens has a closed C-loop haptic design, we recommend rotating it clockwise. Some surgeons have suggested first

removing all dispersive OVD from about 20° before the target axis, but we think there is no need to do so with this lens.

Irrigation and aspiration can be done while the IOL is aligned in the target axis (Figure 10). When the I/A instrument is removed, no rotation is observed, and the IOL remains perfectly aligned to the target axis at the end of surgery (Figure 11).

CONCLUSION

The Lucidis T IOL seems to be a good choice for patients with astigmatism who want to benefit from EDOF technology after cataract surgery. More clinical studies are needed to show the benefits and drawbacks of this lens. Our first clinical impressions are quite enthusiastic. No patient has complained of halos, and most patients have good far vision, often with additional comfort in near and intermediate vision.

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