

A Video Tour of the Anterior Segment

BY MARK KONTOS, MD

This installment of “Inside Eyetube.net” features videos that focus on the anterior segment. Each highlights the complex nature of the anterior segment and the innovation it inspires among ophthalmologists and the ophthalmic industry. Topics range from a novel technique for removing foldable lenses to ultrasound-free laser cataract surgery to a new anterior phakic IOL. Also, Richard A. Lewis, MD, talks to cataract surgical pioneer Robert M. Sinskey, MD, about his decision to undergo canaloplasty.

IOL EXCHANGE

Vikas Shankar, MD; Muhammad Amer Awan, MD; and William Wykes, MD, describe a technique for explanting a PCIOL without enlarging the incision or cutting the haptic and optic. First, the lens is floated into the anterior chamber with viscoelastic after being freed of capsular attachments. A Sinskey hook supports the lens from behind, and the surgeon uses a folding forceps to fold the lens in the anterior chamber. The IOL can then be explanted through the original incision. The lens remains intact, and the original incision is unaltered. This safe and effective technique can be used to exchange damaged IOLs or in cases of a refractive surprise (Figure 1).

A PATIENT’S PERSPECTIVE

Richard Lewis, MD, an innovative canaloplasty surgeon, interviews Robert M. Sinskey, MD, about his

personal experiences with glaucoma and his decision to undergo canaloplasty. Speaking as a patient and an eye surgeon, Dr. Sinskey discusses the advantages of this surgery compared with filtering surgery or the use of multiple medications, and he shares his outcome and the impact that surgery has had on his life. Dr. Sinskey also speculates about the future of canaloplasty and its potential as an early treatment for glaucoma (Figure 2).

In another video, M. Javier Gonzalez Rodriguez, MD, demonstrates canaloplasty with the Glaucolight device (DORC International BV). He begins by providing an excellent view of the dissection of the scleral flap. The Glaucolight device allows for precise visualization of the probe as it advances 360° through Schlemm canal. Once the canal suture is fixed in place and tied, the flap is sutured closed. Gonioscopy is used to visualize the suture and flap (Figure 3).

ULTRASOUND-FREE LASER CATARACT SURGERY

Ming Wang, MD, uses the LenSx Laser (Alcon Laboratories, Inc.) to remove a cataract without using ultrasound. First, the lens is prechopped and partially fragmented with the laser. Dr. Wang then elevates the lens into the anterior chamber with viscoelastic. A chopper and a large-bore phaco tip partition the lens into numerous small pieces. In suction mode, the phaco probe easily aspirates these pieces. Avoiding ultrasound during this portion of cataract surgery offers many advantages in terms of safety



Figure 1. The surgeon holds the lens with the folding forceps.



Figure 2. Robert M. Sinskey, MD, discusses his decision to undergo canaloplasty.



Figure 3. The surgeon advances the Glaucolight probe 360° through Schlemm canal.



Figure 4. Fragments of the lens in the anterior chamber.

and should speed patients' visual recovery (Figure 4). For more on Dr. Wang's technique, see his article on page 69 of this issue.

ZSAL-4/PLUS PHAKIC REFRACTIVE LENS

The ZSAL-4/Plus Phakic Refractive Lens (Morcher GmbH [not available in the US]) is a fifth-generation, phakic angle-supported lens. Jorge L. Alió, MD, PhD, helped design the implant with Juan Perez-Santonja, MD, and Fernando Zapata, MD. In his video, Dr. Alió demonstrates how to insert the IOL into the anterior chamber of a phakic patient. The lens has a specialized haptic design and an enlarged optical zone with refined edges. The hope for this lens is that its unique design will reduce the complications associated with ACIOLs (Figure 5).

CONCLUSION

The videos in this month's "Inside Eyetube.net" demonstrate that the anterior segment continues to be an area

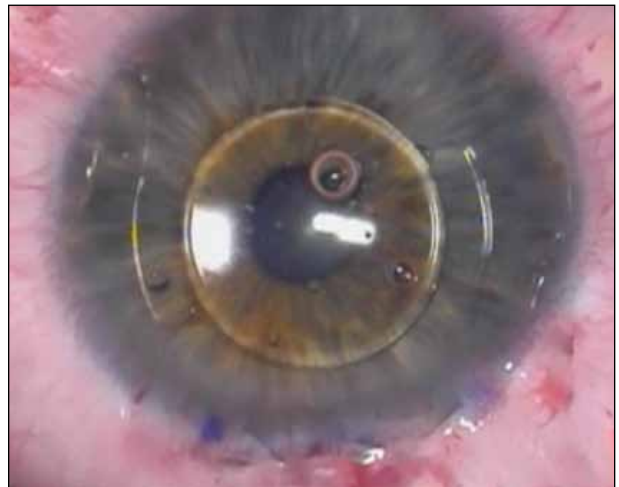


Figure 5. The lens is positioned in the patient's eye.

of diverse innovation. Novel surgical techniques continue to advance well-tested procedures, and new devices treat conditions more effectively. ■




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 <p>Direct link to Dr. Shankar's video: http://eyetube.net/?v=pohib</p>	 <p>Direct link to Dr. Wang's video: http://eyetube.net/?v=dewaw</p>
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