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BY NATHAN M. RADCLIFFE, MD

One of the most exciting aspects of treating glaucoma is the diversity of available surgical approaches. If you ask four ophthalmologists to describe their standard approach to trabeculectomy, you will likely hear four different techniques. Surgeons have even more choices for implanting tube shunts. After deciding whether to use a Molteno (IOP, Inc., Costa Mesa, CA), Baerveldt (Abbott Medical Optics Inc., Santa Ana, CA), or Ahmed (New World Medical, Inc., Rancho Cucamonga, CA) implant, ophthalmologists can opt to place the tube in the anterior chamber, the posterior chamber (iridociliary sulcus), or the pars plana. A recent explosion of surgical procedures designed to provide reliable outcomes, avoid ocular penetration, minimize bleb formation, and spare precious conjunctiva has provided physicians with an even wider range of approaches for controlling patients' IOP.

As glaucoma surgeons try new techniques and procedures, they often send trade secrets to their colleagues via e-mail. They also solicit advice—occasionally with frantic, last-minute phone calls—and share battle stories on online forums. Although these forms of communication are helpful, words alone cannot adequately illustrate the details of surgical innovation.

Fortunately, Eyetube.net has emerged as the next wave in continuing education for glaucoma surgeons. Over the

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past 2 years, this ophthalmic video resource has become invaluable for physicians who desire to incorporate new surgical techniques and devices into their practice.

After completing a free and simple registration, visitors to Eyetube.net can explore channels focused on glaucoma, the cornea, cataracts, refractive IOLs, the retina, and oculoplastics. Surgeons are also encouraged to submit their own videos to the Web site.

The column “Inside Eyetube.net” will regularly highlight exciting videos from the Web site.

GONIOSCOPY

The glaucoma channel has something for everyone. A collection of videos in which Wallace L. M. Alward, MD, demonstrates techniques for performing gonioscopy is an essential educational resource for students, residents, and the glaucoma specialists who train them. The series includes a great example of a pseudoangle, a finding often observed in the unlucky 18% of patients who have exfoliative glaucoma accompanied by iridotrabecular apposition from pupillary block¹ (Figure 1) (<http://eyetube.net/videos/default.asp?vatosi>; rehosted from <http://gonioscopy.org>).

TRABECULECTOMY

Christopher Teng, MD, and Jeffrey Liebmann, MD, demonstrate a fornix-based technique for trabeculectomy (Figure 2) (<http://eyetube.net/videos/default.asp?nisahu>). Viewers will appreciate the economy of movement and the parsimony with which the surgeon completes this classic approach to creating a filtering bleb.

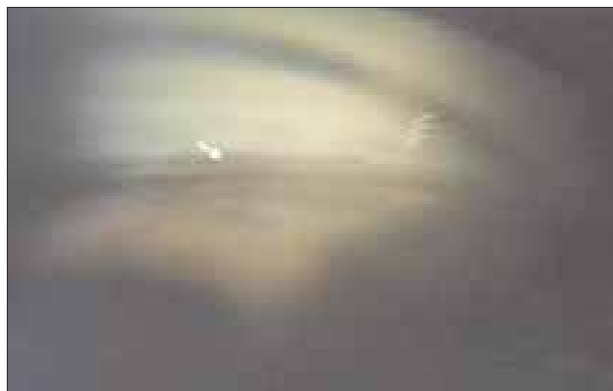


Figure 1. A narrow angle with a false trabecular meshwork.



Figure 2. The surgeon performs a fornix-based trabeculectomy with mitomycin C.



Figure 4. The surgeon uses an ab interno technique to place a drainage tube in the iridociliary sulcus.

Lest we conclude that the fornix-based approach is indisputedly superior to other techniques for trabeculectomy, Christopher Teng, MD, and Robert Ritch, MD, present an equally beautiful and simple limbus-based procedure. The final frame of their video demonstrates fluorescein draining into the bleb from a deep anterior chamber and a running suture closing the superior fornix so that it is watertight (Figure 3) (<http://eyetube.net/videos/default.asp?ripovi>).

TUBE SHUNTS

Surgeons seeking technical innovations may be interested in a video showing the ab interno creation of a sclerotomy suitable for the placement of a tube in the iridociliary sulcus (Figure 4) (<http://eyetube.net/videos/default.asp?viswof>).

First, Michael Hecceg, MD, and Robert Noecker, MD, MBA, introduce a 23-gauge needle into the eye through a corneal paracentesis approximately 180°



Figure 3. The advantages of a limbus-based trabeculectomy include facile wound closure and a low risk of early postoperative bleb leak.

away from the tube's intended insertion. Next, they advance the needle across the eye and under the iris until it pierces the sclera posterior to the limbus. The surgeons then use the same ab interno approach to insert a microforceps into the eye and pull the tube into the sclerotomy.

ENHANCED EDUCATION

If you are intrigued by the variations on basic surgical techniques highlighted in this article, just wait until this column covers the next wave of videos showcasing innovative glaucoma surgeries. Better yet, upload your own videos and share your surgical secrets with *Glaucoma Today's* readers. After all, every glaucoma surgeon has his or her unique approach.

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1. Wishart PK, Spaeth GL, Poryzees EM. Anterior chamber angle in the exfoliation syndrome. *Br J Ophthalmol.* 1985;69:103-107.

