

Video-based MIGS course for the comprehensive ophthalmologist

by Liz Hillman
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A video-based instructional course on Saturday gave attendees detailed, step-by-step techniques for various MIGS procedures. Discussion included patient selection, surgical pearls, adjunctive therapy, and management of complications.

One presentation focused on performing goniotomy with Trabectome (NeoMedix). Rahul Pandit, MD, Houston, Texas, explained that the Trabectome technology includes automated irrigation and aspiration along with the electrosurgery that selectively ablates the trabecular meshwork and the inner wall of Schlemm's canal. It works by creating a plasma cloud that has a highly confined heat dissipation cone with minimal thermal transfer to the outer wall, Dr. Pandit said.

Patient selection for Trabectome is broad, Dr. Pandit continued. It can be performed as a standalone procedure or with cataract surgery for any patient needing a pressure reduction or those who need a reduction in the number of drops they take. Dr. Pandit encouraged caution with patients on anticoagulants that can't be discontinued, those with prior stents in the nasal quadrant, and patients with limited neck mobility.

A 1.8-mm clear corneal incision is made, followed by rotating the patient's head and the microscope 30–40 degrees. Under gonioscopic view, the Trabectome tip is inserted. Dr. Pandit said there is a total of 90 degrees of ablation, with 45 degrees in one direction and 45 degrees in the other. Irrigation and aspiration occur

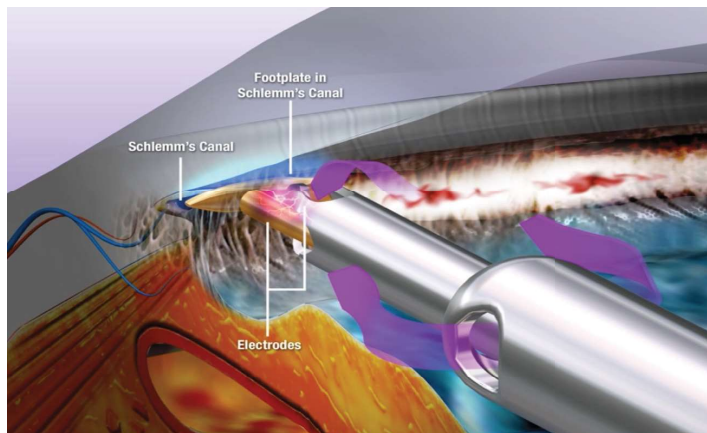
throughout the procedure, and a suture is used to close at the end of the case.

Dr. Pandit said to enter the meshwork by gently pressing onto it, creating a bit of a wrinkle in the meshwork to then allow you to penetrate into Schlemm's canal. Slowly advance the tip in Schlemm's canal, ensuring the foot pedal is in position 3 (electropulse activated). Ensure you remain in foot position 3 as you advance forward, ablating along the arc with the incision acting as a fulcrum, Dr. Pandit said. Continual handpiece withdrawal toward the surgeon minimizes friction on the posterior wall of Schlemm's canal while advancing along the arc, he explained.

Postoperative care includes a topical antibiotic, steroid, NSAID, and pilocarpine 1–2% that's tapered alongside the steroid/NSAID (though some surgeons don't use pilocarpine at all). Anticoagulants can be restarted 1 day postop unless there is significant hyphema. The suture is removed after 1 week.

Dr. Pandit mentioned a study that showed Trabectome as a standalone procedure had a higher mean IOP reduction compared to the procedure combined with phaco, but the combined procedure had a higher 2-year success rate. When looking at the overall cohort of these patients, Trabectome lowers IOP by about 31%, decreases medications by less than one, and has a 2-year success rate. It is well tolerated and has a low rate of serious complications.

Nir Shoham-Hazon, MD, New Brunswick, Canada, presented on the XEN Gel Stent



▲ Cross-section of the Trabectome handpiece in Schlemm's canal
Source: Rahul Pandit, MD, screenshot from presentation

(Allergan), describing it as a microinvasive, ab interno, subconjunctival implant. He said XEN is meant for all surgeons and all stages of glaucoma.

Dr. Shoham-Hazon said XEN uses the “gold standard” mechanism of action for outflow in a minimally invasive way, bypassing all potential areas of outflow resistance while sparing the conjunctiva. He went on to discuss the importance of prepping the ocular surface prior to this procedure with steroids, oral antibiotics, and consideration of preservative-free glaucoma drops.

Looking at clinical data, Dr. Shoham-Hazon said in the APEX trial there was at least a 25% reduction in mean IOP, a mean reduction of medications from 2.6 to 0.6 at 12 months, and 55.5% of patients were drop-free at 12 months. Two-year results were similar in terms of mean IOP and mean percent change of IOP was nearly 30%. XEN as a standalone vs. phaco-XEN combined yielded similar results.

He also noted various implantation techniques

available with XEN. Traditional implantation is ab interno with a closed conjunctiva. Ab interno with an open conjunctiva might be used for more complex cases that have a higher risk of scarring. There are also ab externo open conjunctiva and ab externo closed conjunctiva/transconjunctival implantation options.

Other presentations in this instruction course, which can be viewed at IC-2, include an overview of intraoperative gonioscopy, OMNI (Sight Sciences), ab interno canaloplasty (ABiC, Ellex), Hydrus Microstent (Ivantis), iStent (Glaukos), goniotomy-assisted transluminal trabeculotomy (GATT), and Kahook Dual Blade (New World Medical). ●

Editors' note: Dr. Shoham-Hazon has financial interests with Allergan and other ophthalmic companies. Dr. Pandit has no financial interests related to his presentation.