

THE COMPREHENSIVE OPHTHALMOLOGIST'S PERSPECTIVE ON MIGS

REFLECTING ON A DECADE OF PERFORMING MICROINVASIVE PROCEDURES.



BY DEBORAH RISTVEDT, DO

Ten years ago, I moved back to my hometown to join my dad in practice as a third-generation comprehensive ophthalmologist. Although retired from seeing patients, my grandpa was still very active in the field; he even traveled to Africa to help during the height of the Ebola epidemic. They both understood the value of progress for improving patient care, and they embraced new surgical interventions and technology, from implanting posterior chamber IOLs to learning phacoemulsification to adopting improved glaucoma techniques. Their dedication to patient care and their excitement for trying new things were traits that I wanted to carry on.

My grandpa often talks about the challenges of treating patients with glaucoma in West Africa, where he spent 18 years as a full-time medical missionary. Drops were expensive and hard to obtain, laser therapy was not an option, and interventional surgery posed great risk. Gaining patients' trust was a challenge. It was difficult to explain to a patient that even surgical intervention for glaucoma could result in loss of vision.

After completing residency, I quickly learned about the obstacles faced by people with glaucoma, even in the United States. Quality of life has become a substantial consideration when it comes to treating patients with glaucoma. Ocular surface issues, cost, compliance, and glaucoma care fatigue each have an effect on how patients view their disease state. If a glaucoma specialist is not close by, receiving proper care may require a great deal of coordination and expense. My heart breaks to see patients choose to risk vision loss rather than to continue with glaucoma care.

FIRST INTRODUCTION TO MIGS

I will never forget listening to Thomas W. Samuelson, MD, a glaucoma specialist I admire, give a presentation on MIGS at an ASCRS winter meeting. With the large number of patients who have glaucoma in our practice, I wondered if there were now something I could do early in the disease process to decrease the chance of visual field loss or the need for traditional surgical intervention.

Although MIGS was a new concept, it was clear to me that, if the technique

could enhance aqueous outflow, lower IOP, provide stability earlier with less risk, and reduce medication burden, I needed to invest in learning all that I could. As a busy cataract surgeon, I felt an obligation to my patients with glaucoma to provide more surgical options for them. The fact that many of these procedures could be done at the same time as cataract surgery, under topical anesthesia, was wonderful.

Because I was in practice, I relied on meetings, colleagues, and company representatives to train me in this new space. I even brought patient charts to get insights from speakers. Through these efforts, I was able to learn from those who had more experience. I took this knowledge and continued learning with online modules and then a wet lab. I involved our staff members in the training process, and they were then able to share the concept of MIGS and the excitement around it with our patients.

PEARLS FOR INCORPORATING MIGS INTO PRACTICE

In a comprehensive practice like mine, it made sense to start with angle-based surgery performed at the

THE INDUSTRY PERSPECTIVE

TRAINING TO IMPLEMENT MIGS | ALLERGAN

At Allergan, we strive to deliver our surgical devices to physicians with all aspects of implementation already thought out in detail and with an eye toward patient safety. Before our surgical representatives can begin providing details to physicians on the Xen glaucoma treatment system, these representatives must meet our standards for training. Every representative completes a multiphased program focused on four big-picture areas of best clinical practice:

1. Patient selection and preoperative preparation;
2. Perioperative preparation;
3. Optimal placement, mobility, and function of the Xen Gel Stent implant; and
4. Postoperative management and optimization of the Xen bleb.

First, representatives complete foundational interactive learning modules that cover the anatomy and physiology of the eye and visual system, the glaucoma disease state, glaucoma treatment options, the Xen device, and the Xen procedure and postoperative management. Representatives must be fluent in the device's indications for the surgical management of refractory glaucoma, including cases where previous surgical treatment failed, cases of primary open-angle glaucoma, and cases of pseudoexfoliative or pigmentary glaucoma with open angles that are unresponsive to maximum tolerated medical therapy. They must obtain a deep understanding of the seminal studies and white paper guidance in the Xen literature

and study videos that showcase the nuances of the implantation procedure.

Next, in order to understand the implantation procedure from start to finish, representatives are required to complete wet labs in a controlled environment. Under the supervision of a clinical specialist, they then observe approximately 30 live Xen surgical cases, debriefing each case in detail.

Finally, our representatives undergo an extensive assessment involving both written and oral exams. They are evaluated on their ability to proctor physicians through the Xen's directions for use, discuss intraoperative complication management scenarios, and deliver Xen training presentations. Under the supervision of a clinical specialist, new representatives instruct a physician on the device's directions for use, a process that includes didactic and wet lab sessions, and then observe multiple live cases and postoperative patient assessments over a period of several days.

This multistaged program of sales training may seem intensive, but we understand that our physicians expect our sales representatives to have a robust knowledge, and we are committed to providing comprehensive and responsive support throughout their Xen journeys. The best way to ensure that we continue to advance patient care and interventional glaucoma treatment is to provide representatives who are well educated and prepared to provide the necessary support.

time of cataract surgery. When MIGS was just being developed, this involved the use of a trabecular bypass stent.

What I learned about angle surgery was that it was vital to become excellent at performing gonioscopy and identifying the angle structures, specifically the scleral spur and trabecular meshwork (TM). It was key to start practicing gonioscopy in the OR, with the microscope set up and the patient in position. If the TM had little pigment, softening the eye for reflux of heme into Schlemm canal could point the way. Later, trypan

blue dye was suggested as a tool for staining TM. I learned that having an adequate amount of an OVD in the angle and being gentle so as not to dimple the wound or press down on the cornea with the prism provided a good view during surgery. Lastly, taking care to allow bleeding to stop before completion helped with postoperative recovery.

The process of learning the risks and benefits, acquiring the technique, and becoming comfortable with patient education requires coordination, time, patience, and practice. I started with

one technology and became comfortable with it before moving on to another procedure. To other comprehensive ophthalmologists learning to perform MIGS, I recommend starting by combining MIGS with cataract surgery. This experience can be built on on by choosing more devices or procedures in the angle that bypass the TM, dilate the canal, or remove TM. This allows treatment to be individualized. Learning angle-based surgery opens up the possibility to add devices that decrease aqueous production and filter through the subconjunctival space.

I have been able to use multiple technologies that work on different pathways to try to maximize IOP reduction in appropriate patients. When the angle appears not to be functioning despite revitalized outflow, or when there is a need for further IOP lowering, identifying when a patient needs a subconjunctival procedure is a valuable skill. If I can decrease IOP into the low teens and spare conjunctival real estate in case the patient needs further intervention, it is a win.

CONCLUSION

Looking back on the past 10 years, learning and performing MIGS has been a highly rewarding journey. It is a skill that I continue to build upon and refine. I have found myself starting to acquire a more refined algorithm in

my practice. This is where the art of medicine comes in. The ability to use many MIGS devices and techniques has allowed me to start to individualize treatment based on lens status, IOP target, and disease severity.

I feel obligated to have an interventional mindset for several reasons. If I can identify patients in the early stages of glaucoma and optimize aqueous outflow to stabilize IOP, could this slow or halt visual field loss? Could intervening early with MIGS decrease the burden of medication? I have become passionate about encouraging other comprehensive ophthalmologists to start implementing MIGS and to increase the number of devices and techniques they use.

Whether one is in training, a new adopter of MIGS, or interested in add-

ing more MIGS technologies in practice, one can use resources from meetings, participate in wet labs, and reach out to representatives and colleagues who can help with the achievement of these goals.

My own goal is to help patients feel less burdened by their disease state and maybe postpone or obviate the need for more invasive incisional surgery. When comprehensive ophthalmologists support glaucoma specialist colleagues, everyone wins. ■

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