

MIGS Beyond Cataract Surgery: An Interventional Mindset



The transformative shift towards an interventional mindset in glaucoma management highlights the role of MIGS as a standalone procedure in pseudophakic patients.

BY IQBAL IKE K. AHMED, MD, FRCSC; FELISE MAY BARTE, MD; AND LAWRENCE WOODARD, MD

During a recent meeting, three anterior segment specialists sat down to discuss the importance of MIGS procedures and the evolving interventional mindset around glaucoma management and cataract surgery.

INTERVENTIONAL GLAUCOMA: A NEW MINDSET

Iqbal Ike K. Ahmed, MD, FRCSC: When we surgeons think about the interventional glaucoma mindset, we shift our approach from 'I have a patient with a cataract who happens to have glaucoma,' to 'I have a glaucoma patient who happens to have a cataract.' When talking with patients, how do you frame this discussion and highlight the benefits of MIGS procedures?

Lawrence Woodard, MD: An important part of the discussion is the role of MIGS as a standalone procedure. Many of our patients already have had cataract surgery, but their glaucoma is still progressing. A standalone MIGS procedure offers a potential alternative to drop medication alone for managing IOP.

Dr. Ahmed: Dr. Barte, what obstacles do you believe need to be addressed before we can fully embrace the concept of standalone MIGS and implement it? Does this happen before reaching maximum medication usage, or before a patient develops advanced glaucoma?

Felise May Barte, MD: We have seen significant advances in glaucoma management that no longer require patients to rely on numerous eye drops, a factor that impacts their lives and is often

underestimated. The advances in MIGS allow the surgeon to offer pseudophakic patients an effective alternative to manage patients' IOP and minimize drop burden. This enhances patients' quality of life—an aspect I consider crucial.

Dr. Ahmed: Shifting the focus from IOP control to improving quality of life is a patient-centric approach that we should prioritize. Barriers to adopting interventional glaucoma include a mindset shift and the availability of effective and safe standalone MIGS procedures. Dr. Woodard, how do you foresee maximizing surgical effectiveness, especially concerning outflow, to achieve optimal outcomes in these patients?

Dr. Woodard: The three primary areas of resistance in the outflow pathway are the Schlemm's canal, trabecular meshwork, and collector channels, (Figure 1). A standalone procedure with the OMNI Surgical System (Sight Sciences) comprehensively addresses these areas of resistance, opening up the outflow pathway to reduce IOP.

Dr. Ahmed: Dr. Barte, how do you consider the resistance anatomically, and how does a MIGS procedure with the OMNI technology address these three areas of resistance?

Dr. Barte: With the advancements in MIGS, it's now possible to target not only the trabecular meshwork, but also the collector channels and Schlemm's canal. OMNI enables surgeons to tackle all three areas of resistance which is unique among MIGS devices and is particularly appealing to me.

Dr. Ahmed: Dr. Woodard, where do you think this procedure's sweet spot lies in terms of glaucoma's severity—mild, moderate, or severe?

Dr. Woodard: I think the advantage of the OMNI technology is that we can treat a variety of glaucoma patients and can approach them on a case-by-case basis. We maintain a lower IOP by addressing the three outflow pathways comprehensively with this technology.

Dr. Ahmed: Do you have a standard approach for all patients, or do you tailor the OMNI procedure for each case?

Dr. Barte: I do at least a 180° canaloplasty regardless of the disease progression in almost all my patients. Then, I tailor the trabeculotomy based on the patient characteristics. I achieve very good results with a 180° canaloplasty, followed by 180° trabeculotomy.

Dr. Woodard: I typically opt for 360° canaloplasty for most of my patients. When considering the trabeculotomy, I might choose between 180° and 360°. I approach each patient individually, assessing their specific needs. That's what makes this device unique—its flexibility compared to other devices. The OMNI technology allows for a tailored approach, which I find truly remarkable.

CASE REPORT 1

Dr. Woodard

A 78-year-old male underwent cataract surgery OD in 2020, but he did not receive MIGS during the procedure. The patient

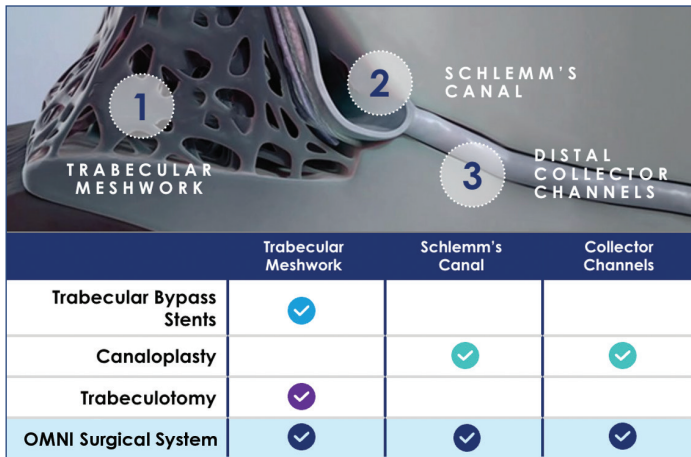


Figure 1. The OMNI device comprehensively addresses all three areas of resistance in the conventional outflow pathway.

was diagnosed with primary open-angle glaucoma (POAG). His T_{max} was 28 mm Hg before the drop medication was added 7 years ago. Lumigan (AbbVie/Allergan) was initially prescribed, and Combigan (AbbVie/Allergan) was added 5 years ago. His IOP remained between 14 and 16 mm Hg over the last 2 years. An OCT scan showed evidence of optic nerve thinning. He was referred by his OD for a standalone procedure with the OMNI device. His IOP measured 14 mm Hg at both the 1-month and 6-month postoperative visits, and he had reduced his medications to only 1.

CASE REPORT 2

Dr. Barte

A 71-year-old African American female presented with POAG seeking a second opinion. The patient had been prescribed Lumigan and Cosopt (Merck) OU, with her current IOP in the mid 20s OU with good compliance reported. The patient's T_{max} was 33 mm Hg OU. She was pseudophakic, had a C/D ratio of 0.65 OU, and her visual field and OCT optic nerve showed progression in the left eye. A standalone procedure with the OMNI technology was performed in the left eye. The patient's IOP was 15 mm Hg at postoperative month 1 and 14 mm Hg at postoperative month 6. Medication eye drops were tapered over her postoperative course. One year after the standalone procedure with the OMNI device, the patient's IOP was 14 mm Hg on no medication.

SUMMARY

The dawn of interventional glaucoma allows surgeons to shift the treatment paradigm to a patient-centric approach that may improve the patient's quality of life. The OMNI Surgical System is effective in addressing resistance areas in the outflow pathway and offering a tailored approach for various patient scenarios, highlighting the evolving role of standalone MIGS procedures in glaucoma care, especially for pseudophakic patients, as they may offer meaningful reductions in both IOP and medication burden.¹ ■

1. Williamson BK, Vold SD, Campbell A, et al. Canaloplasty and trabeculotomy with the OMNI System in patients with open-angle glaucoma: two-year results from the ROMEO study. *Clinical Ophthalmology*. 2023;17:1057-1066.

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INDICATIONS FOR USE: The OMNI Surgical System is indicated for canaloplasty (microcatheterization and transluminal viscodilation of Schlemm's canal) followed by trabeculotomy (cutting of trabecular meshwork) to reduce intraocular pressure in adult patients with primary open-angle glaucoma.

CONTRAINDICATIONS: Do not use the OMNI Surgical System in any situations where the iridocorneal angle is compromised or has been damaged (e.g., from trauma or surgery), since it may not be possible to visualize the angle or to properly pass the microcatheter. Do not use the OMNI Surgical System in patients with angle recession; neovascular glaucoma; chronic angle closure; narrow-angle glaucoma; traumatic or malignant glaucoma; or narrow inlet canals with plateau iris. Do not use the OMNI Surgical System in quadrants with previous MIGS implants. Please visit OMNISurgical.com/ifu for the full instructions for use, warnings, precautions, and adverse event information.