

Harnessing the OMNI Opportunity

MIGS with the OMNI® Surgical System should be an option for all suitable glaucoma patients at the time of cataract surgery, says Consultant Ophthalmologist Dan Lindfield

OMNI from Sight Sciences is an implant-free, minimally invasive technology indicated for ab-interno canaloplasty and trabeculotomy to reduce intraocular pressure in adult open-angle glaucoma (OAG) patients. It gives surgeons the option to treat glaucoma at the time of cataract surgery or as a standalone procedure, targets three areas of resistance intended to lower IOP, and delivers sustained long-term IOP reduction.

Dan Lindfield, Consultant Ophthalmologist and Glaucoma Director at the Royal Surrey County Hospital in Guildford was the first in the UK to use OMNI and regularly performs OMNI with and without cataract surgery. Lindfield feels "aligned to the mentality of implant-free surgery." He explains, "As a rule, MIGS aims to improve or restore physiological drainage and the absence of a foreign body left behind in the angle therefore seems



intuitive. Previously there was no choice, but now we have devices such as OMNI, where an implant-free approach is possible."

Lindfield thinks of OMNI as a "canal cleaner." He explains, "Many parallels can be drawn between glaucoma procedures and household plumbing, but clearing the blockage by dilating and 'flushing' the system is one of OMNI's primary mechanisms of action." He now predominantly performs only viscocanaloplasty with OMNI.

"Generally I prefer not to de-roof the canal by removing trabecular meshwork. There's emerging evidence that Schlemm's is a pulsatile, peristaltic system reliant on valves (1) so I prefer to clear the canal and encourage rejuvenation of these natural flow mechanisms".

He continues, "There's always a small opening created in the trabecular meshwork during the process of cannulating the canal which acts as the conduit between anterior chamber and the canal. However, it's useful to have the option to 'do more' and add trabeculotomy if patient specifics require. I'm drawn to treating 360 degrees because the disease affects 360 degrees. The beauty of the retractable microcatheter of the OMNI system is that I can access 360 degrees. I'm not limited to treating only what is opposite the corneal incision like other MIGS devices dictate.

Combining OMNI with cataract surgery

For Lindfield, MIGS with OMNI should be an option for all glaucoma patients at the time of cataract surgery. "I think if a patient has concurrent cataract and glaucoma, then combining their proposed cataract procedure with a MIGS procedure is an opportunity that should be grasped," he says. "Bleb-forming MIGS (MIBS) aside, the safety profile and predictability of the post-op journey means most of my glaucoma patients receive a procedure such as OMNI if they are undergoing phaco without negatively impacting our

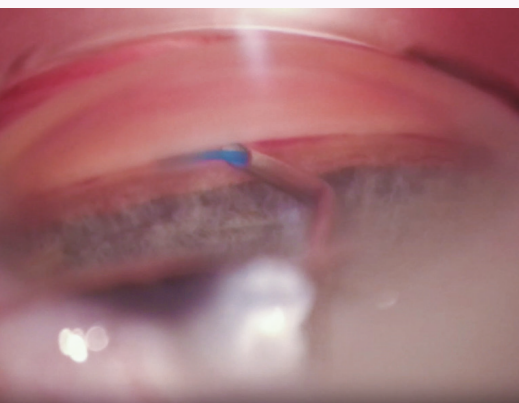
theater efficiency or productivity." Indeed, Lindfield feels that "not considering MIGS is an opportunity missed." He goes on, "Hospitals are very well set up for high-efficiency, high-volume cataract surgery. Data and experience illustrates that the addition of MIGS can be appended to a cataract procedure efficiently.

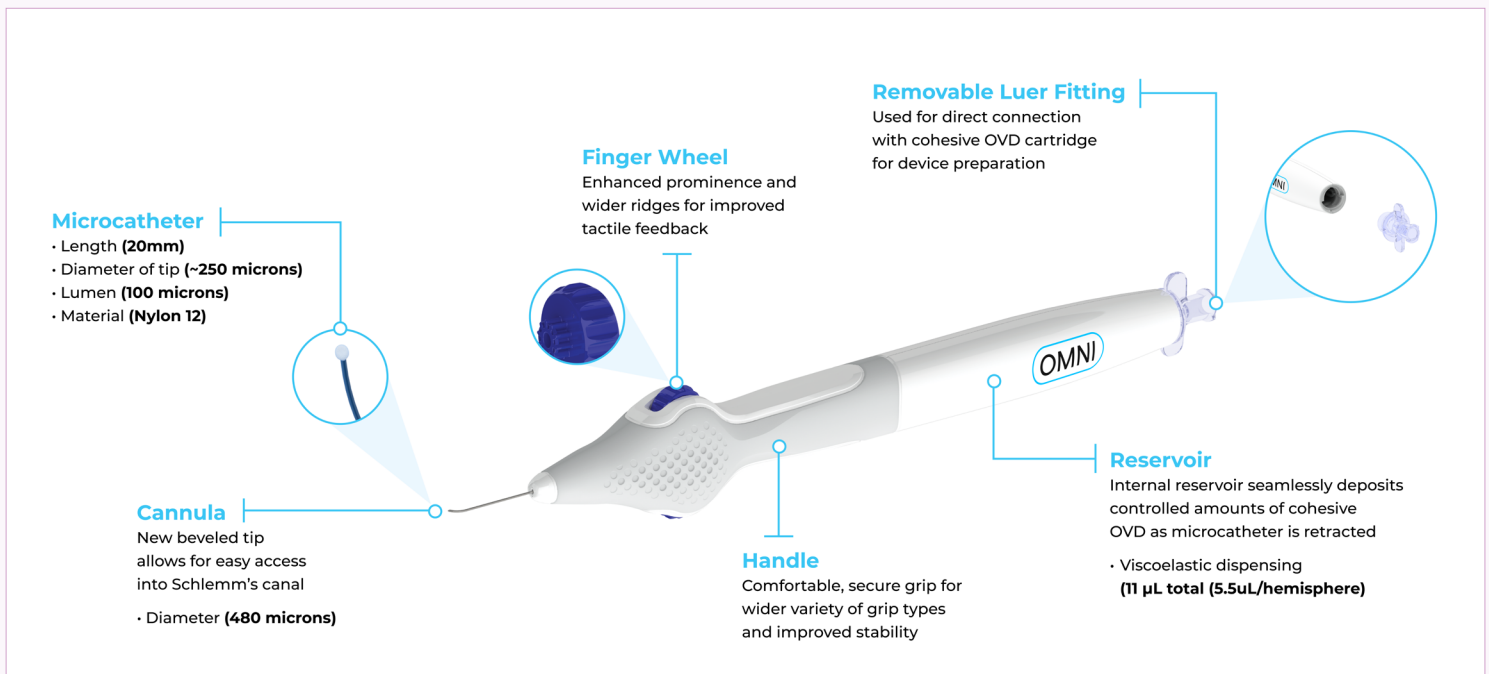
Most theaters lose time with turnaround and set-up, but for OMNI there is minimal set-up, adds Lindfield. "Just open the sterile pack, fill with cohesive viscoelastic and hand to the surgeon. I think adding such devices to the glaucoma surgical options within a hospital benefits patients without negatively impacting cataract workflow because it's simple and reproducible and fits symbiotically with phaco."

Safety profile

Lindfield points to three key studies supporting OMNI's safety and effectiveness compared to other procedures: the GEMINI study, which is a prospective series but now has 36 months' follow-up of 66 eyes (2), and two retrospective studies – ROMEO with 24 months follow-up (3) and the IRIS Registry (4), which provides outcome evidence for large numbers of patients (9000) receiving MIGS procedures. "IRIS offers some comparisons between the commonly available MIGS devices and shows favorable IOP reduction and medication reduction for OMNI compared to both iStent and Hydrus," explains Lindfield. "I have many patients doing well at three years; our data suggest useful reduction in pressure with minimal adverse events. Our rate of significant hyphema is now less than 2%. Other adverse events, such as hypotony or clefts, have been rare in the clinical studies and not encountered in my practice."

The post-op care plan for patients who have had OMNI surgery is very similar to cataract surgery alone, notes Lindfield. "Any device creating a conduit between the anterior chamber and the canal effectively breaches the blood aqueous barrier. Therefore, we





should expect some additional inflammation.” Lindfield prefers to inject intracameral Dexamethasone at the end of the procedure to dampen this inflammation for the first 24 hours post operatively. “The risk of spikes is very low, as the drug is effectively cleared within 36 hours,” he says. “Miostat is also proven to reduce pressure spikes by aiding non-conventional outflow while the work completed on the conventional outflow is allowed time to recover. Otherwise, I use my standard cataract regime or topical antibiotic, steroid, and NSAID.”

Equal access for suitable patients

The biggest lesson for a MIGS surgeon is “when is MIGS not suitable,” Lindfield continues. “If a patient would do better with filtration surgery, then we shouldn’t forget that. However, OMNI combines well with cataract – unlike filtration surgery. The recovery and patient journey with OMNI is superior to filtration. In my practice I consider all cataract patients with open-angle glaucoma as candidates for OMNI. Only a very low-target pressure or an atypical angle would deter me. Care should be taken with anticoagulant/antiplatelet drugs. Canaloplasty is essentially cannulating a vein so some blood reflux is always to be expected. However, with good technique and absence of drugs

that increase bleeding tendency, then clinically significant hyphema is rare.”

Awareness is key to ensuring equal access to OMNI for all suitable patients, says Lindfield. “Glaucoma referral pathways and cataract surgical pathways differ around the world, but I believe that all glaucoma patients having surgery should be made aware of the option of adding MIGS such as OMNI to their cataract surgery.” He concludes, “It would be unwise for a surgeon not to mention the opportunity for a concurrent MIGS procedure to a patient with glaucoma having cataract surgery. It’s an opportunity missed.”

References

1. M Johnstone et al., Aqueous outflow regulation – 21st century concepts. *Prog Retin Eye Res* 2021;83:100917.
2. MD Greenwood et al., “36-Month Outcomes from the Prospective GEMINI Study: Canaloplasty and Trabeculotomy Combined with Cataract Surgery for Patients with Primary Open-Angle Glaucoma,” *Clin Ophthalmol.*, 17, 3817 (2023). PMID: 38105915.
3. BK Williamson et al., “Canaloplasty and Trabeculotomy with the OMNI System in Patients with Open-Angle Glaucoma: Two-Year Results from the ROMEO Study,” *Clin Ophthalmol.*, 17, 1057 (2023). PMID: 37056792.

4. <https://www.sightsciences.com/us/sight-sciences-announces-12-month-results-from-american-academy-of-ophthalmology-iris/>

Dan Lindfield is a paid consultant of Sight Sciences, Inc.

This information is intended solely for healthcare professionals located in the UK and EU. Patients should direct questions to their healthcare professional.

INDICATIONS FOR USE: The OMNI Surgical System is indicated for the catheterization and transluminal viscodilation of Schlemm’s canal and the cutting of trabecular meshwork to reduce intraocular pressure in adult patients with open-angle glaucoma.

For important product information including cautions and adverse events, please refer to the full instructions for use available at omnisurgical.com/international

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