

A Discussion: How iTrack's Advantages Fit Into Your MIGS Algorithm

The device opens outflow pathways without closing any doors to future procedures

BY MAHMOUD A. KHAIMI, MD, JUSTIN SPAULDING, DO, AND SAMUEL THOMSEN, MD

Two of my recent fellows from Dean McGee Eye Institute (DMEI) joined me to discuss how their glaucoma training is translating into “real-life” practice. I asked Justin Spaulding, DO, of the Cataract & Laser Institute of Southern Oregon, and Samuel Thomsen, MD, at Eye Surgical Associates in Lincoln, NE, how their glaucoma treatment algorithms have evolved and how the iTrack from Nova Eye Medical is positioned in their glaucoma treatment toolkit.

What were some of the most compelling things you learned about glaucoma and its management during your time at DMEI?

Dr. Thomsen: We were exposed to every treatment modality, as well as to a very compelling, creative approach at Dean McGee. We saw roles for minimally invasive glaucoma surgery (MIGS) in all forms and stages of disease. It helped open my mind to alternatives to trab or tube for patients with severe glaucoma, and see that MIGS can help us avoid subjecting many patients to higher-risk surgeries. The experience helped me think outside the box in terms of how I approach glaucoma. I left feeling very comfortable handling the treatment of all forms of glaucoma, no matter what type or severity.

Dr. Spaulding: The most compelling thing for me was the varied exposure in that program. I worked directly under four physicians with four very individual

approaches to treating glaucoma. From that wide breadth of exposure, I was able to steal the things that resonated with me and create my own algorithm for walking patients through their glaucoma experience.



We've followed iTrack patients for about 3 years now, with or without cataract surgery, and we've found that over half have achieved pressure control and are only taking 1 to 1.5 medications.”

—*Samuel Thomsen, MD*

MIGS has allowed us to take a truly nuanced approach to treatment. What is your typical treatment algorithm?

Dr. Spaulding: My first step for most patients is SLT and/or drop therapy. I prefer SLT because it takes the burden off of the patient and prolongs the day when they potentially need to use drops. My first drop is a prostaglandin, followed by a beta blocker. If patients get up to two drops without adequate control and they've had SLT, then I choose a MIGS procedure based on the disease process and the amount of IOP we need to overcome.

Dr. Thomsen: Drops are first-line for me. SLT is next, although I've started

offering it as first-line treatment for some patients. When patients are taking two to three drops and pressures are not controlled, then I think about MIGS. We have so many safe options, so I offer angle-based surgery very early in my treatment algorithm. Only after other measures are exhausted do I consider trab or a tube.

You both use a number of different MIGS. How does Nova Eye's iTrack—the first canaloplasty microcatheter—fit into your algorithm?

Dr. Thomsen: I strongly believe in iTrack and offer it to the full spectrum of patients. The bread-and-butter glaucoma patients with primary or secondary open-angle disease do very well. For patients who are on a significant amount of drops and/or seem to be progressing, iTrack is definitely my go-to choice when considering all of the MIGS options. It's nice that I can use it with or without cataract surgery and even use it if the patient has had previous MIGS.

I've also had very good success using iTrack in patients with chronic angle-closure glaucoma. I think it offers the most bang for your buck in terms of the minimally invasive nature and how much it decreases pressure. I don't use iTrack for patients with neovascular glaucoma or uncontrolled uveitic disease.

Dr. Spaulding: iTrack improves all of the conventional outflow pathway—the trabecular meshwork, Schlemm's canal, and collector channels—which

makes it effective for a lot of patients. iTrack also does a phenomenal job for primary open-angle glaucoma or pigmentary pseudoexfoliation. Most don't need to go back on drops. For patient with a previous filtering surgery, inflammatory conditions, or malignancy, I don't choose iTrack.

What do you see as the key advantages of iTrack?

Dr. Spaulding: Compared with other MIGS, obviously it's an advantage that iTrack can be performed outside of cataract surgery. It also leaves no hardware in the eye, and it does not tear or remove tissue. We do full 360-degree treatment of the distal outflow system, making microperforations in the trabecular meshwork and pushing out herniations in Schlemm's canal and the collector channels. It's repeatable and, most importantly, it doesn't rule out any other procedures in the future.

In advanced cases where we're considering trab or tube, doing iTrack first allows us to delay or avert those surgeries with a safer procedure that carries much less risk of adverse events like hypotony or diplopia.

Dr. Thomsen: There's always a debate about how leaving things in the eye affects the endothelial cell count. The beauty of iTrack is that we can go in, dilate the canal, meshwork, and collector channels, get the system flowing again, and leave it in a revived version of its natural state. Nothing is left behind that could cause persistent problems. However, if a device or stent has been placed in the angle, we can still use the iTrack to bypass it and treat a majority of the drainage system. Lastly, we're also not removing tissue, which leaves the door open for any future manipulation of the angle.

Have either of you tried other MIGS devices for viscodilation?

Dr. Spaulding: I've used both iTrack and Omni in fellowship. I gravitated to iTrack because it delivers more

OVD during viscodilation (more than 100 microliters), which I can titrate by adjusting clicks to increase or decrease the amount of viscodilation. That's not possible with the Omni. iTrack also dilates 360 degrees of the canal in one catheterization. And I love iTrack's illuminated tip because I always know where I am in the canal.



I do not believe in ripping through trabecular meshwork for every case—we need to avoid burning bridges, especially when so much innovation is occurring in glaucoma. The gentler iTrack procedure delivers the efficacy we want and a low-inflammation postoperative recovery."

—Justin Spaulding, MD

What kind of results are you seeing after using iTrack?

Dr. Thomsen: Following surgery, I stop all glaucoma drops and closely monitor the IOP response over the next 1 to 3 months. I will slowly add back glaucoma drops if the IOP becomes uncontrolled, but I try to give as much time as possible without drops to see the full effect of the procedure.

Because we're not removing tissue, patients have minimal inflammation. When combined with cataract surgery, my postoperative regimen includes the typical antibiotic for 1 week with a steroid taper over 1 month. When I do it alone, patients get an antibiotic for 1 week and a low-dose steroid tapered over 2 to 3 weeks.

We've followed iTrack patients for about 3 years now, with or without cataract surgery, and we've found that more than half have achieved pressure control and are only taking 1 to 1.5 medications. In addition, I have had such great success with the iTrack that

I was able to practice 7 months out of fellowship before I had to perform a trabeculectomy. With the iTrack, we are significantly lowering pressure and preventing the need for another surgery at this point.

Dr. Spaulding: I tell patients this treatment is like resetting the eye—after surgery, we stop all drops and we see where the pressure lands over the next 2 months, and then we add a drop if needed. With or without cataract surgery, most of my patients are off medications after iTrack or the number of medications is reduced dramatically. And postoperative care is simple—an antibiotic for 5 days and tapering loteprednol for 10 days. I do not believe in ripping through trabecular meshwork for every case—we need to avoid burning bridges, especially when so much innovation is occurring in glaucoma.

The gentler iTrack procedure delivers the efficacy that we want and a low-inflammation postoperative recovery. ■



Mahmoud Khaimi, MD, is a clinical professor at the University of Oklahoma Dean McGee Eye Institute in Oklahoma City, OK, and chief medical consultant for Nova Eye Medical.



Justin Spaulding, DO, is a glaucoma and anterior segment specialist at Cataract and Laser Institute of South Oregon in Medford, OR.



Samuel Thomsen, MD, is a glaucoma and cataract specialist with Eye Surgical Associates in Lincoln, NE.

