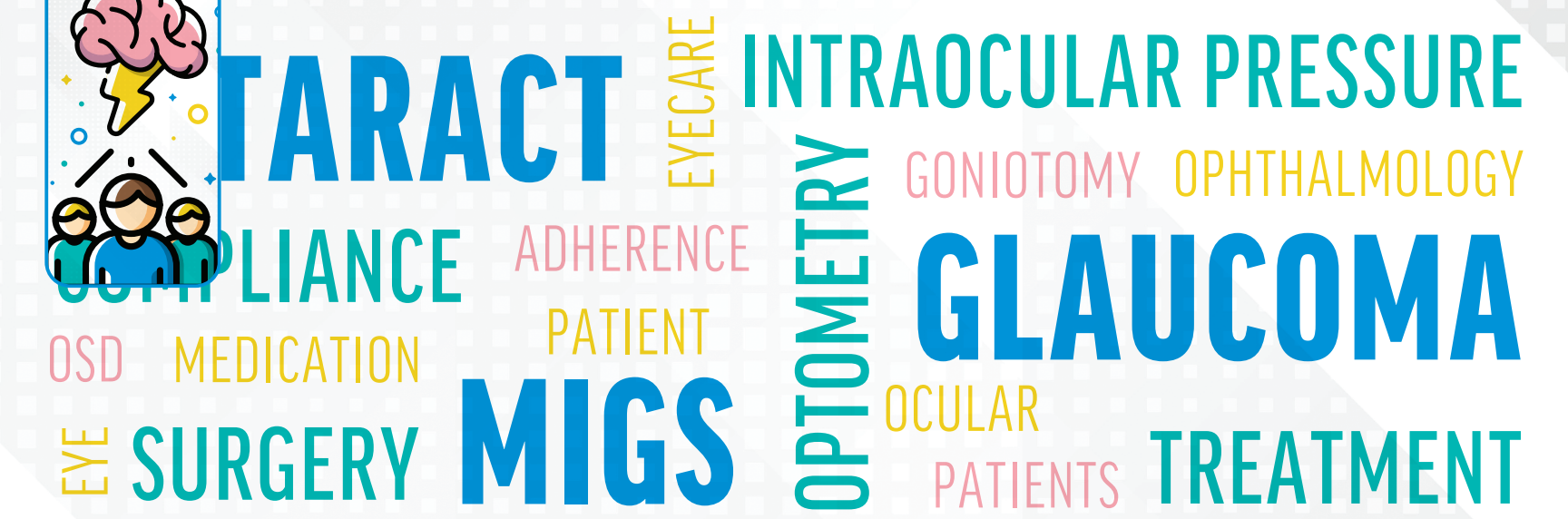

TREATING GLAUCOMA IN THE CATARACT PATIENT

Combining treatments for both conditions has several benefits.

Based on a presentation at MOD Live 2022 in Nashville, Tennessee.

BY JUSTIN SCHWEITZER, OD, FAAO

Patients with glaucoma who require cataract surgery present us with a window of opportunity to help them not only see better, but also to control their glaucoma. This article briefly touches on some considerations to keep in mind when caring for this particular patient base.

KEEP MIGS IN MIND

When you have a patient who is taking multiple glaucoma medications and who has a visually significant cataract, there's no reason not to pair their cataract surgery with a micro-invasive glaucoma surgery (MIGS). MIGS will likely reduce the number of medications the patient uses at no added risk to the cataract procedure. In fact, several studies show that cataract surgery alone can lower IOP, but that additional IOP lowering can be achieved when cataract surgery is combined with a MIGS procedure.[1,2]

COMBINE TO BEAT COMPLIANCE ISSUES

Compliance, or nonadherence, with medication remains an issue within all of our practices. In the Travatan dosing study, patients were given medication free of charge and told that they would be monitored. Still, nearly 45% of patients used the drop less than 75% of the time.[3]

In another compliance study by Nordstrom et al, more than 90% of patients were nonadherent with their dosing regimens, and 50% of these patients stopped using their medications by 6 months.[4]

LOOK CLOSELY AT QUALITY OF LIFE

We conducted a small, 3-month prospective pilot study at our center that looked at ocular surface disease

AT A GLANCE

- Cataract surgery alone can lower IOP, but additional lowering can be achieved when combined with a MIGS procedure.
- A variety of MIGS procedures (eg, stenting, goniotomy, ab interno trabeculotomy) can be combined with cataract surgery, many of which are on label when performed in conjunction with one another.
- Combining cataract surgery and MIGS may also decrease the medication burden.

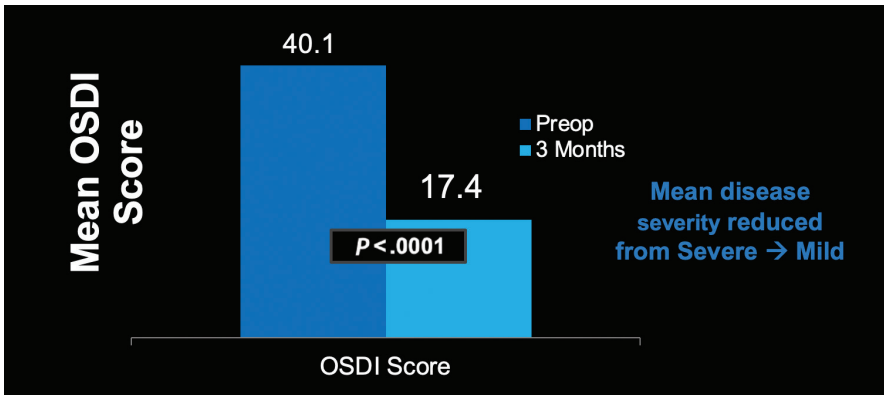

Figure 1. In a 3-month prospective pilot study, patients had a significant improvement in ocular surface disease index.

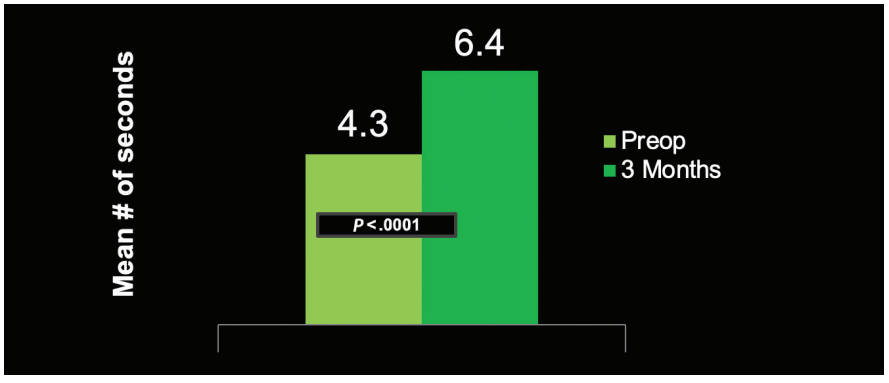

Figure 2. Patients had a significantly longer tear breakup time at 3 months postoperatively compared with their preoperative tear breakup time in the pilot study.

in patients undergoing a MIGS procedure.[5] Our goal was to find out if MIGS could improve patient quality of life and improve the tear film surface in other ways. The clinical trial enrolled 47 eyes, and we had each patient fill out an Ocular Surface Disease Index (OSDI) questionnaire preoperatively. The average OSDI score was 40.1, which falls into the severe category assessing dry eye symptoms and the effects on vision-related functions in a patient's life. The patients underwent cataract surgery plus stent or stents, and we followed them through the postoperative period for 3 months. We had them fill out the OSDI questionnaire again, and this time the score was 17.5, which falls in the mild category on the OSDI (Figure 1).

Another finding of the study was that patients had a 35% longer tear breakup time at 3 months postoperatively compared with their preoperative tear breakup time (Figure 2). We also saw significantly less corneal staining, significantly less conjunctival staining, and less hyperemia. This was to be suspected because we were able to decrease the medication burden for patients in the study with the combination of cataract surgery and a MIGS procedure. Patients went from an average of 1.4 medications to an average of 0.5 medications at 3 months.

INTERVENTIONAL GLAUCOMA

The treatment of glaucoma is moving from patient-driven protocols (eg, excessive eye drops) towards a physician-driven mindset (eg, intervening earlier in the disease process with effective treatment options that don't burden our patients with excessive medications.) Gone are the days of starting patients on one medication, then moving to two medications, and finally adding a third medication. Once they progress on excessive medications we send them for a tube shunt or a trabeculectomy.

We now have a middle ground where we can recommend MIGS procedures, or drug delivery, or selective laser trabeculoplasty, and really make a difference in our patients' lives. Patients with visually significant cataracts and mild-to-moderate glaucoma are the low hanging fruit, but we also have to consider those who are not progressing and who have ocular surface disease or quality-of-life issues as candidates for these procedures.

There are a variety of MIGS procedures (eg, stenting, goniotomy, ab interno trabeculotomy) that can be combined with cataract surgery, many of which are on label when performed in conjunction with one another.

TWICE THE OPPORTUNITY

It's an exciting time to treat patients with glaucoma, and we have new opportunities for those who have both cataracts and glaucoma to really change their lives in a positive way. We're still going to use drops in the management of these patients, but it's also a surgical disease, and the key is collaborating between ophthalmology and optometry and figuring out ways we can intervene to make the lives of our patients' better. ■

1. Samuelson TW, Sarkisian SR Jr, Lubeck DM, et al; iStent inject Study Group. Prospective, randomized, controlled pivotal trial of an ab interno implanted trabecular micro-bypass in primary open-a ngle glaucoma and cataract: two-year results. *Ophthalmology*. 2019;126(6):811-821.
2. Ahmed IIK, De Francesco T, Rhee D, et al; HORIZON Investigators. Long-term outcomes from the HORIZON randomized trial for a Schlemm's canal microstent in combination cataract and glaucoma surgery. *Ophthalmology*. 2022;129(7):742-751.
3. Okeke CO, Quigley HA, Jampel HD, et al. Adherence with topical glaucoma medication monitored electronically the Travatan Dosing Aid study. *Ophthalmology*. 2009;116(2):191-199.
4. Nordstrom BL, Friedman DS, Mozaffari E, et al. Persistance and adherence with topical glaucoma therapy. *Am J Ophthalmol*. 2005;140(4):598-606.
5. Schweitzer JA, Hauser WH, Ibach M, et al. Prospective interventional cohort study of ocular surface disease changes in eyes after trabecular micro-bypass stent(s) implantation (iStent or iStent inject) with phacoemulsification. *Ophthalmol Ther*. 2020;9(4):941-953.

JUSTIN SCHWEITZER, OD, FAAO
- Optometrist, Vance Thompson Vision, Sioux Falls, South Dakota
- Co-Chief Medical Editor, *Modern Optometry*
- justin.schweitzer@vancethompsonvision.com; Instagram @schw7957
- Financial disclosures: Consultant & Speaker (Alcon, Glaukos, Sight Sciences)