QUALITY-OF-LIFE CONSIDERATIONS IN THE TREATMENT OF GLAUCOMA

Addressing two main areas can positively affect patients.

BY JUSTIN SCHWEITZER, OD, FAAO

Patients with glaucoma depend on us, their eye care providers, to prevent vision loss over the course of their disease. In our efforts to do so, we can inadvertently overlook the side effects of treatments we initiate on the patient's quality of life. Our ultimate goal is to prevent vision loss, but an argument can be made that just as important is minimizing the drop burden to promote adherence, prevent progression, and optimize the ocular surface to prevent treatment-related side effects. As with all disease states, early diagnosis and treatment are key to minimizing vision loss and preserving quality of life.

Many studies have revealed that patients with glaucoma struggle with drop adherence for a variety of reasons, including forgetfulness and frequency.[1,2] Drop frequency and therapy duration have been shown to correlate with ocular surface disease (OSD) prevalence and severity, meibomian gland dysfunction, and worsening quality of life.[3-5] Therefore, it is important not only to educate our patients on the importance of drop adherence, but also to come up with solutions to minimize the drop burden.

NEW GLAUCOMA TREATMENT OPTIONS

When it comes to addressing quality-of-life issues in our patients with glaucoma, one factor that should be considered is new treatment approaches in the glaucoma space. Consider the following.

Preservative-Free Medications

Medical treatment of glaucoma can help manage the disease, but potential side effects can also affect quality of life. For example, although preservatives allow medication to reach the target tissue to lower IOP, they have also been found to cause ocular toxicity. Patients who have concomitant dry eye and glaucoma or who are experiencing ocular toxicity may be good candidates for a preservative-free glaucoma medication. Switching to a preservative-free option has been shown to improve dry eye disease

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signs and symptoms, thus improving their quality of life.[6] A variety of options are available, including preservative-free prostaglandins, fixed combination agents, and compounded single and fixed combination agents.

Selective Laser Trabeculoplasty

Selective laser trabeculoplasty (SLT) has been shown to be effective at lowering IOP and reducing the medication burden.[7,8] Studies have shown that performing SLT as a first-line treatment is comparable to administering topical medications.[7,8] The recently published LiGHT trial released 6-year results revealing that 69.8% of patients in the SLT arm were drop-free at 6 years.[7] Recently, a direct SLT technique was introduced that can perform treatment in 2 to 3 seconds per eye.[9] Annual low-energy SLT is also being investigated to increase medication-free rates and the need for additional treatment.[10]

Drug Delivery Platforms

Delivering medication directly to or near the target tissue is another effective way to lower IOP and reduce the medication burden. Two drug delivery platforms are available, with many others in clinical trials. The bimatoprost 10 mcg intracameral implant (Durysta, Allergan/AbbVie) is an FDA-approved biodegradable, sustained-release implant that is indicated to reduce IOP in patients with open-angle glaucoma or ocular hypertension. It is a single intracameral-administered implant that has been shown to lower IOP for 6 to 24 months.[11]

The travoprost 75 mcg implant (iDose TR, Glaukos) is anchored at the level of the trabecular meshwork into the scleral wall and has an indication similar to Durysta and IOP-lowering abilities up to 3 years.[12]

Drug delivery platforms remove the bottle from the patients' hand eliminating compliance and adherence issues. They keep preservatives off the ocular surface, eliminating toxicity to the ocular surface. These devices can be a win for the patient and a win for the doctor managing their glaucoma.

Minimally Invasive Glaucoma Surgery

Minimally invasive glaucoma surgery (MIGS), both by themselves and combined with cataract surgery, have been shown to reduce the number of glaucoma medications a patient is taking. These procedures carry a good safety profile and allow patients to recover rapidly postoperatively.[13-15] Improvements in OSD, measured by the Ocular Surface Disease Index and dry eye signs (eg, tear breakup time, corneal staining, conjunctival hyperemia), may also be noted with MIGS.[16] This is not a surprise, as a reduction in medications will lead to a healthier ocular surface.

DRY EYE TREATMENT

Another approach to improving the quality of life for our patients with glaucoma is ocular-sparing dry eye disease treatments.

Oral Medications

The use of doxycycline or azithromycin has been shown to improve signs and symptoms of meibomian gland dysfunction in patients who failed to respond to prior conservative management.[17]

In-Office Therapy

Treatment such as thermal pulsation, heat and expression, and intense pulsed light therapy targets meibomian gland improvement without needing to add more medication to the ocular surface. With these technologies, studies have shown an improvement in meibomian gland secretion score, OSDI, and tear breakup time.[17,18]

Neurostimulation

Neurostimulation targets the trigeminal nerve, which controls

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the lacrimal functional unit. This unit is responsible for the lacrimal gland, accessory glands, goblet cell degranulation, and meibomian gland function. Available technologies in this category include a focused oscillatory energy device that activates the external nasal nerve from the outside of the nose (iTear 100, Olympic Ophthalmics) and a varenicline nasal spray 0.03 mg (Tyrvaya, Viatris).

QUALITY, NOT QUANTITY

Quality-of-life issues are common in our patients with glaucoma. At the top of the list are OSD and medication compliance. These issues affect patient outcomes and glaucoma progression. Be mindful of preserving both vision and quality of life when caring for these patients. ■

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