Despite diagnostic advances and expanding treatment options, glaucoma continues to challenge eye care providers for many reasons. Adherence, early detection, and mysterious pathophysiology remain problematic. As optometrists assume larger and more important roles in the management of glaucoma, it is important that they stay up to date on the techniques and technologies for treating this sight-threatening disease.

Microinvasive glaucoma surgery (MIGS) is a recent addition that can offer improved safety and earlier surgical intervention in the disease process, in comparison with more invasive surgical procedures, to decrease patients’ dependence on medication. Pairing a MIGS procedure with cataract surgery makes sense because these pathologies often occur at a similar age and the combination reduces the number of times a patient must undergo surgery.

Reimbursement considerations, however, complicate the situation. The FDA has approved four MIGS devices: the iStent Trabecular Micro-Bypass Stent (Glaukos), the iStent inject (Glaukos); and Hydrus Microstent (Ivantis), with labeling indicating that they are to be used in combination with cataract surgery in patients with mild to moderate glaucoma, and the Xen Gel stent (Allergan), which can be used in combination with cataract surgery or without cataract surgery, and is approved for use in patients with refractory glaucoma. In addition, the labeling of these devices states that patients must have been using ocular hypotensive medication.

In most circumstances, therefore, a glaucoma suspect would not qualify for reimbursement for one of these MIGS procedures. Optometrists therefore must think ahead strategically in order to prepare patients and document the justification for a MIGS procedure so as to streamline the surgical consultation. Below are three steps to consider for patients whom you think may be candidates for a MIGS procedure.

**STEP NO. 1: CATEGORIZE THE DISEASE**

ICD-10 classification requires increased specificity regarding the type of glaucoma and its level of severity in comparison with the previous version, ICD-9 (see Categories of Glaucoma). The coding revision also increased specificity with regard to MIGS procedures and their indications, which has allowed payers to restrict reimbursement for specific glaucoma procedures.

**Figure.** Gonioscopy image of iStent inject Trabecular Micro-Bypass System (Glaukos) in situ.
CATEGORIES OF GLAUCOMA

GLAUCOMA SUSPECT
Patient exhibits one or two of the following:

- IOP above 21 mm Hg
- Suspicious or asymmetric cup-to-disc ratio greater than 0.2
- Suspicious visual field defect on 24-2 test

MILD STAGE
Patient has optic nerve changes consistent with glaucoma but has a full visual field.

MODERATE STAGE
Patient has optic nerve changes consistent with glaucoma and a glaucomatous visual field defect in one hemifield that is not within 5° of fixation.

SEVERE STAGE
Patient has optic nerve changes consistent with glaucoma and glaucomatous visual field defects in both hemifields that are within 5° of fixation.

STEP NO. 2: INITIATE THERAPY
Current indications state that all patients undergoing a MIGS procedure must be using glaucoma medical therapy. For example, patients must be using at least one IOP-lowering drop before receiving the iStent Trabecular Micro-Bypass Stent (Figure). In contrast, to undergo surgery with the Xen Gel Stent, patients must be on maximum tolerated medical therapy. Unlike the iStent, the Xen does not have to be combined with cataract surgery.

These requirements suggest that it may be prudent to initiate medical therapy sooner than has been common practice. Starting topical therapy when a patient is first diagnosed with glaucoma opens the door to a MIGS procedure if and when it is indicated.

STEP NO. 3: DOCUMENT TREATMENT FAILURE
Treatment failure can be used to justify a recommendation for MIGS. Examples include uncontrolled IOP, an intolerance of topical drops because of allergy, and other barriers to medical therapy (eg, poor compliance, ocular surface toxicity and other side effects, financial burden).

IT PAYS TO THINK AHEAD
To quote the English politician Charles Buxton, “In life, as in chess, forethought wins.” Optometrists best serve their patients with glaucoma by thinking ahead to treatments they may require in the future. To maximize their options, eye care providers can consider the benefits and drawbacks of initiating topical medical therapy early in the course of the disease, document glaucoma severity and treatment failures, and include MIGS in discussions with patients regarding alternatives for glaucoma treatment, particularly if cataract surgery is warranted.

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