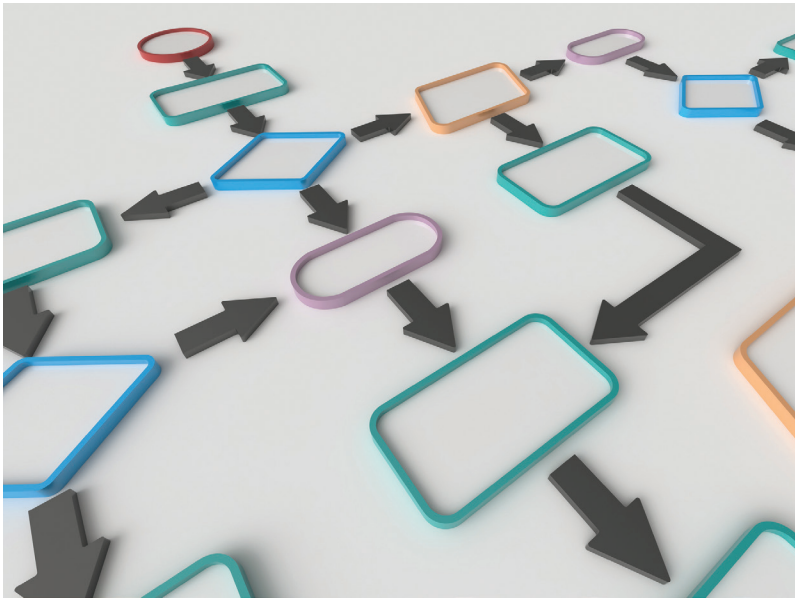
DECISIONS, DECISIONS

This issue of *GT* celebrates the growing options for microinvasive glaucoma surgery (MIGS). Recent FDA approvals mean that glaucoma surgery can be performed using microstents in both the supraciliary and subconjunctival spaces from an ab interno approach for the very first time in the United States. The devices join numerous angle procedures, laser therapies, and forms of filtration surgery in glaucoma surgeons' armamentarium. Coupled with the significant cost and challenges of medical therapy, these advances are prompting ophthalmologists to intervene surgically in glaucoma more frequently. Surgeons are increasingly performing angle procedures to manage early open-angle glaucoma (OAG), and they are considering using MIGS as first-line therapy more often than ever before, especially in the setting of concomitant cataract surgery.

With so many surgical options now available, the challenge becomes figuring out when properly to use each procedure. Whenever new technology is introduced, physicians must learn how it works and master its use, determine proper patient selection, and navigate changes in the business of health care. The process is complex.

At present, many surgeons are advocating the use of angle procedures as first-line treatment for patients with early glaucoma. The thinking is that these procedures offer possibly the safest surgical option for restoring physiologic outflow in the least traumatic fashion. Clinical practice and basic scientific research seem to indicate that the collector system remains intact during the early stages of disease. As glaucomatous progression damages the system, angle surgery may become less successful. Several experienced surgeons have also suggested implanting multiple microstents to bypass the trabecular meshwork and performing more complete angle treatment for the management of both moderate and advanced OAG.

The first supraciliary microstent in the United States, the CyPass Micro-Stent (Alcon), threatens to disrupt glaucoma surgical care. The pivotal COMPASS clinical trial found promising efficacy with the device in the setting of cataract surgery and minimal differences in its perioperative complication profile compared with cataract surgery alone. The hope is that supraciliary devices will safely improve uveoscleral outflow to treat mild to moderate OAG at the time of cataract surgery. Researchers are studying if this implant can be effective for advanced glaucoma.



The Xen45 Gel Stent (Allergan) is indicated for the management of advanced, refractory OAG. In clinical trials, most patients had a history of incisional glaucoma surgery. One advantage of this device is its FDA approval as a standalone procedure. The hopes are that this surgery will offer outstanding efficacy, greater safety, and more rapid recovery than traditional filtration surgery and that it could become an option for moderate disease.

The number of MIGS procedures continues to grow, but how best to use them has yet to be determined. I encourage glaucomatologists to implement these new options judiciously, to learn from each other, and to candidly share information to improve patient selection, refine surgical techniques, and prevent and manage complications. My hope is that clinicians and industry will avoid a conflict similar to the prostaglandin wars of the past. Let's instead work together for the best interest of glaucoma patients. ■

Steven D Vold, MD

Steven D. Vold, MD
Chief Medical Editor