In primary open-angle glaucoma, when progression occurs, the rate is usually very gradual. Even with significant documented visual field loss, most of our patients are functionally asymptomatic. In fact, many who have moderate to advanced field loss and require a glaucoma filtering procedure are asymptomatic at the time of surgery.

The goal of treatment is to keep patients seeing during their lifetime, yet we ophthalmologists should also do no harm or at least minimize the risk of doing harm, which includes the risk of inducing symptoms in an asymptomatic patient. Microinvasive glaucoma surgery (MIGS) plays an important role in helping us manage these conflicting objectives. The additional incremental risk of using an available MIGS device is relatively small, especially when employed in conjunction with routine cataract surgery.

STRIKING A BALANCE

The level and extent of required intervention vary greatly depending on who is sitting in the chair, and a multitude of factors influence our recommendations. We need to balance the effectiveness of the procedure with its potential impact on the patient’s immediate quality of life. We are attempting to preserve his or her vision while choosing among options with differing IOP-lowering profiles and levels of complexity, which then carry differing amounts of risk.

We must factor the potential complications and side effects of our well-intentioned plans into the reality that the patient faces. When deciding whether to use MIGS, we must consider the patient’s general health and life expectancy; the state of the disease, including whether one or both eyes are involved; the complexities of various treatment options; costs such as copayments; and the issue of adherence.

We often maximize medical therapy and perform laser treatment in order to avoid, or at least delay, incisional glaucoma surgery. With current surgical techniques, there is generally a tradeoff: the lower the expected, sustained, postoperative IOP with which the procedure is associated, the greater the risk at the time of surgery and potentially in the long term. For example, a successful trabeculectomy produces a low IOP. Unfortunately, the procedure also comes with the potential symptoms of a filtering bleb and, importantly, over time, carries a cumulative risk of a potentially devastating infection and vulnerability to trauma.

When we consider the surgical options for a glaucoma patient who has a significant cataract, the risk profile of a MIGS procedure and its minimal impact on a patient are not comparable to those of other traditional surgeries: the MIGS procedure will typically be much better tolerated and have a safer risk profile. Although a MIGS procedure may not work as well or as often as a traditional glaucoma surgery, the complication rate of the former is lower, and its negative impact on the patient’s quality of life is less.

CONSIDERING MIGS

We surgeons balance the potential impact of glaucoma with that of our interventions on the patient’s

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quality of life. Again, as we recommend intervention, we must take into account that, unfortunately, current treatments risk making an asymptomatic patient symptomatic. We therefore want to choose an intervention that will maximize the patient’s useful vision while minimizing inconvenience, cost over a lifetime, and discomfort. These factors must be weighed against the realities of our current MIGS options, which are not cheap, do not always work, and may not reduce IOP as low as would a trabeculectomy.

Again, despite the lesser decrease in IOP expected, the risk profile of a MIGS procedure is very favorable compared with traditional filtering surgery. In a patient who has mild to moderate glaucoma, even a small improvement in IOP control can be significant. If a patient is on multiple medications preoperatively, reducing his or her need for one of those drugs will significantly improve his or her quality of life. Frankly, for some patients using a single medication, eliminating their need for that agent will produce a major improvement in their quality of life while at the same time addressing their risk of optic nerve damage. Such positive changes are particularly significant for elderly individuals who may have only 5 or 10 years remaining in their life. MIGS may also help the many patients for whom adhering to or affording prescribed medical therapy is difficult. We must customize treatment to the patient and the eye.

CONCLUSION

We have all been trained to do no harm as we try to help our patients. Interventions that allow us to provide additional protection to patients from potential vision loss from glaucoma while maintaining their quality of life are certainly an important new tool. When considering the whole patient and the dictate to do no harm, we cannot overly fixate on studies. As Henderer and Spaeth suggested, “The studies ... are very helpful for identifying biologic risk factors that can be applied to a patient, but it is also necessary to take into consideration other risk factors when determining an individual’s overall risk of disease progression.” Ultimately, we must balance complex factors and bear in mind all the while that we treat individuals, not means or averages.

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