

GLAUCOMA IN THE OCTOGENARIAN

Considerations in treating the advanced elderly.

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The aging glaucoma population presents numerous challenges to practicing physicians. Although the diagnostic workup is essentially the same in the young and the elderly, the therapeutic approach may differ considerably. Treatment recommendations must take into account patient-related as well as disease-related risk factors. Elderly individuals often present with functional and cognitive impairment, physical limitations, coexisting systemic disease, and concomitant medication use. These elements contribute to poor adherence and must be recognized by clinicians for them to optimize outcomes in this population. In this article, Dr. Solish provides insight into the impact of age on glaucoma management.



—Sarwat Salim, MD, section editor



Clinicians' understanding of the pathophysiology of glaucoma and the methods of treatment have evolved significantly over the past few decades. The concept of one disease with a common treatment paradigm is no longer valid. Instead, there are different concepts and indications for topical medication, laser treatment, microinvasive glaucoma surgery,

and traditional incisional surgery, either trabeculectomy or glaucoma drainage devices. In this context, the patient's age also plays a significant role in the evaluation and treatment of the disease.

Patients in their eighth decade of life and older present unique concerns and challenges that must be acknowledged when treating their glaucoma. In addition to the specific diagnosis, the elderly patient faces significant social, emotional, cognitive, mobility, and risk issues. If physicians do not take these factors into account, they increase the chances of disappointing clinical and surgical outcomes as well as difficult interactions with patients, leading to frustration and a lack of trust. Considering and addressing all aspects of a patient's situation optimize the success and efficiency of glaucoma care.¹

COMORBIDITIES

It is well established that the incidence of open-angle glaucoma as well as other comorbidities increases with age. Because glaucoma is often asymptomatic, its treatment may receive less attention and prompt less concern when the patient has other, often life-threatening diseases. Eye care

providers' discussions with patients and their families can stress the importance of continued monitoring or treatment. Without this interaction, the more acute disease processes may receive attention, and patients' long-term vision care may be compromised.

FACING RESTRICTIONS

Advanced elderly patients are subject to a variety of restrictions and limitations. Many lack adequate transportation to access a pharmacy or an eye care provider's office. A significant yet underappreciated problem in this and other subgroups of glaucoma patients is difficulty administering eye drops, either because of memory loss or the physical restriction of arthritis.¹ Also noteworthy, cognitive decline



AT A GLANCE

- As the population ages, a larger percentage of individuals are surviving into their eighth decade and beyond.
- The advanced elderly present unique concerns and challenges that must be acknowledged when treating their glaucoma such as significant social, emotional, cognitive, mobility, and risk issues.
- Considering and addressing all aspects of a patient's situation optimize the success and efficiency of glaucoma care.

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with a concomitant diagnosis of dementia increases dramatically in the advanced elderly population.²

WHY NOW?

As people's longevity into their eighties and nineties becomes the norm rather than the exception, transportation and cognition become just two of the challenges and concerns that eye care providers must address. Adherence to and persistence with prescribed topical therapy can be difficult, especially when the treatment regimen requires multiple medications for glaucoma and other systemic diseases.

The prospect of surgical treatment, however, may be even more challenging. If maximum medical and laser therapy fail to lower IOP sufficiently, glaucoma surgery must be considered regardless of a patient's age. Sometimes, younger patients and those with no prior history of eye surgery are more resistant to this intervention than the advanced elderly. Many octogenarians who have had cataract surgery and have other serious medical illness are less concerned about undergoing eye surgery. That said, the asymptomatic aspect of glaucoma leads to the question of why now?

If properly prepared over time with the rationale for treatment, patients and their families will understand the considerations and need for surgical intervention. Unfortunately, eye care providers do not always have a long history of visits during which to educate patients and their families, in which case extra time and effort are required to explain the rationale for glaucoma surgery. Importantly, some octogenarians may perceive the shortness of their remaining years as a reason to avoid surgery. Eye care providers must therefore clearly explain the indications for incisional intraocular surgery and its potential benefits and risks.

SURGICAL PLANNING

Early in the surgical planning process, ophthalmologists consider the patient's health status and comorbidities as well as the ability of the patient and/or caregivers to provide postoperative care. The elderly have increased rates of cardiovascular disease, hypertension, respiratory disease, and

renal and endocrine disorders as well as elevated rates of cognitive impairment. Patients' back or neck issues can make positioning for surgery challenging. In the advanced elderly, the conjunctiva and sclera are generally thinner and atrophic, making bleb-related surgeries more prone to difficult conjunctival closure and wound leaks. Intraoperative floppy iris syndrome is also more likely in elderly men with a history of exposure to α -blocking agents for prostate disease. Many potential surgical complications are possible when aging changes and comorbidities are considered.³

Depending on the target IOP and risks (clinical and social determinants), microinvasive glaucoma surgery or cyclophotocoagulation rather than standard trabeculectomy or glaucoma drainage devices may be an appropriate approach. Because optic nerve studies have established age-related ganglion cell loss in patients without glaucoma,⁴ the potential for blindness from the disease in the advanced elderly is high. If a very low IOP is required to prevent severe vision loss in this group, trabeculectomy remains the optimal strategy.

Success rates of trabeculectomy may not differ with age in the adult population.⁵ Even so, it might be helpful in the future to investigate age relationships in terms of treatment outcomes using large databases such as the American Academy of Ophthalmology's IRIS Registry.

CONCLUSION

As the population ages, more individuals are surviving into their eighth decade and beyond. Physicians are increasingly recognizing the challenges of caring for the advanced elderly. Future improvements in glaucoma care can be achieved by better understanding these patients' broad array of issues, including coexisting systemic diseases, cognitive problems, and economic and social factors. ■

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