

Toric IOLs: Broadening the Indications

Patients with all degrees of AMD have been shown to benefit from cataract surgery.

BY NORMAN SAFFRA, MD

The goal of all ophthalmologists is to provide their patients with the best vision possible, whether it is after cataract surgery or in treating posterior segment disease. Advancing technology allows us to achieve this objective better than ever before, even when the two pathologies coexist.

With the increasing number of geriatric patients in America, the prevalence of age-related conditions is increasing dramatically. This is especially true of conditions like age-related macular degeneration (AMD). According to the National Eye Institute, AMD currently affects almost 1.75 million patients in the United States, and it is predicted to affect 3 million patients by the year 2020. The coexistence of age-related cataracts in this population is a given, and many patients either have preexisting astigmatism or develop corneal astigmatism. It is quite common for ophthalmologists to examine patients who have cataracts, astigmatism, and AMD.

CATARACT SURGERY EXPECTATIONS

Cataract surgery has undergone amazing advances in the past decade in terms of surgical technique and IOL design, and it continues to do so. Many patients and physicians now have the very realistic expectation of greater spectacle or contact lens independence after surgery. This exceptional level of visual acuity is even available to patients with significant amounts of astigmatism thanks to the new generation of toric IOLs. These astigmatism-correcting lenses present the option of reducing or eliminating the uncorrected blurred vision that would otherwise be present after cataract surgery with a standard monofocal lens.

Despite the lenses' out-of-pocket cost, many physicians present premium IOL options to their patients with the knowledge that the aging population is increasingly optically demanding and is often willing to pay an additional fee for the convenience of a lower dependence on glasses. Twenty-two percent of the population

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undergoing cataract surgery have astigmatism of greater than 1.25 D and are potential candidates for toric IOLs.¹

DEALING WITH ANTERIOR SEGMENT DISEASES

Eye care professionals tend to view cataract patients with posterior segment diseases differently. Posterior segment diseases are often frustrating to treat, as many have no definitive cure, and most therapies are aimed at halting the progressive visual loss. Even with successful therapies such as antivascular endothelial growth factor injections for wet AMD, the goal is stabilization of rather than improvement in vision. When the treatment is particularly successful, some lost vision can be restored.

Although patients with all degrees of AMD have been shown to benefit from cataract surgery and experience an increase in visual acuity,² surgeons tend not to offer these patients toric lenses even in the presence of high amounts of astigmatism. Perhaps because patients do not have the possibility of reading the 20/20 line on the Snellen chart without glasses, ophthalmologists feel that patients' satisfaction will not merit their additional expenditure. In my experience, however, this is not the case. Patients with posterior segment disease are often excellent candidates for astigmatism-correcting IOLs, and surgeons should present this option to suitable candidates (Figure).

Typically, when ophthalmologists treat patients with posterior segment disease, they provide them with the best pair of glasses possible. Even if their visual acuity is



Figure. Fundus photograph (A) and autofluorescence imaging (B) show that this AMD patient’s foveal center has been spared by the disease. Her remaining vision would benefit from astigmatic correction with a toric IOL.

limited to 20/80 or worse, it would be unacceptable to give patients the wrong refraction or to fail to correct their astigmatism simply because they could not hope for a visual acuity of 20/20. Although a patient may require high reading adds, achieving a precise refraction on the retinal surface may allow him or her to more freely ambulate without spectacles. This benefit is especially important, for example, for getting out of bed in low-light situations. Correcting astigmatism improves the quality of vision for patients with any level of visual acuity. This same logic should apply to cataract surgery; patients with posterior segment disease and cataract can still benefit from toric IOLs.

THE DISCUSSION

It is easy to give patients “wow” responses when they are shown that they can read 20/20 or 20/15 at distance without glasses, encouraging the physician to present self-pay options for IOLs. It is more difficult, however, with a patient who has posterior disease (such as AMD), which necessitates a more in-depth physician-patient discussion. I recommend the conversation take place with any patient who has 2.00 to 6.00 D of cylinder and is contemplating cataract surgery, even if he or she has coexisting retinal problems. As with any informed consent discussion, setting reasonable expectations for cataract surgery with the implantation of a toric lens in a patient with posterior segment disease is complex. Visual rehabilitation in these patients is geared toward improving overall visual function, such as walking in the street or being able to use magnifiers with greater ease.

The visual goals of patients with posterior segment disease may be limited. If a patient has a cylindrical refraction of 4.00 D, a large central scotoma, and a cataract, he or she will always have a large scotoma that may limit the visual acuity to 20/200. Cataract surgery will improve this patient’s quality of vision, and the implantation of a toric IOL will improve his or her overall visual acuity even more. Such patients will function better. Studies have shown that cataract surgery reduces falls in the elderly.³

A PICTURE IS WORTH 1,000 WORDS

For patients with advanced posterior segment disease, any gain in visual acuity is dramatic. This group of patients should not be ruled out for state-of-the-art care based on a preconceived notion that they will not be able to benefit fully from the technology. Although toric IOLs may not be for everyone, a large group of patients with comorbid posterior segment disease and cataract would benefit from astigmatic correction with a toric IOL. ■

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