The one-eye-at-a-time surgical approach customized for patient needs

Bret L. Fisher, MD

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I have been using the AcrySof® IQ ReSTOR® +2.5 D IOL with the ACTIVEFOCUS™ optical design (Alcon Laboratories, Inc.) since June 2015. In the past year and a half, I have implanted several hundred of these IOLs, and patient satisfaction has been high. In my practice, I take a one-eye-at-a-time approach and implant the ReSTOR +2.5 with ACTIVEFOCUS in the dominant eye, evaluate the patient's vision postoperatively and then determine what IOL to implant in the second eye. This approach has resulted in good outcomes and high patient satisfaction.

A different IOL design

Unlike other presbyopia-correcting IOLs including other low-add-power models, newer extended-range IOLs and previous models of ReSTOR, the central portion of the ReSTOR +2.5 D IOL with the ACTIVEFOCUS optical design is entirely devoted to distance vision. It is truly a refractive IOL with a seven-step diffractive structure that provides an extended range of vision while minimizing visual disturbances.[1] As proven in the pivotal clinical study, the contrast sensitivity mimics that of a monofocal. Clinically, it has been my experience that this IOL gives patients the sharp distance vision of a monofocal IOL combined with an extended range of vision from the diffractive portion.[1] Because this monofocal-like IOL does not compromise distance vision, I have seen an increase in the number of patients in whom I would be willing to implant this IOL, including those who I would not have been considered candidates in the past.

Most patients value distance vision, making the ReSTOR +2.5 D IOL with the ACTIVEFOCUS optical design ideal for the vast majority of patients with otherwise healthy eyes. Today's patients with cataracts want an IOL that gives them a full range of vision and sharp distance vision without compromising on either.[1] Roughly 25% of my patients are now opting for a presbyopia-correcting IOL, and every one of these patients receives a ReSTOR +2.5 D IOL in at least one eye.

Education on expectations

One of our duties as surgeons is to educate patients and make sure they understand the various IOL options they are eligible to receive. If a patient is interested in increased spectacle independence after surgery and is an appropriate candidate for the ReSTOR +2.5 D IOL with the ACTIVEFOCUS optical design, then I inform him or her that, in my experience, it offers a wide range of vision for everyday activities such as viewing a computer screen, playing card games and seeing both the car dashboard and road signs at night.[1] I also make sure to provide an accurate picture of what to expect in terms of visual outcomes, including the need for a mild pair of reading glasses for some near tasks.

Surgical approach

All of my patients considering a presbyopia- or astigmatism-correcting IOL undergo thorough preoperative testing, including corneal topography, corneal tomography, dry-eye assessment and biometry with Lenstar* (Haag-Streit) to examine the corneal surface and ensure there are no issues that may preclude presbyopia IOL implantation. I then perform a full examination of the remainder of the eye, including the optic nerve and retina, to make sure it is healthy.

Once I determine a patient is a suitable candidate for a presbyopia IOL, I make my recommendation. If both eyes are approximately equal in visual acuity and cataract grade, I typically implant the ReSTOR +2.5 D IOL with the ACTIVEFOCUS optical design in the dominant eye first. I perform femtosecond laser-assisted cataract surgery and arcuate keratotomy to correct low grades of astigmatism. I always pretreat the cataract with a femtosecond laser before implanting any premium IOL, and it is instrumental in helping me achieve more consistent outcomes than manual methods.[2]

When my patients return for examination 1 week postoperatively, I determine their level of satisfaction with their vision up close. If patients are happy with their vision, then I proceed with implanting a ReSTOR +2.5 D with ACTIVEFOCUS IOL in the second eye. Approximately half of my patients receive bilateral ReSTOR +2.5 D implantation. Their functional vision

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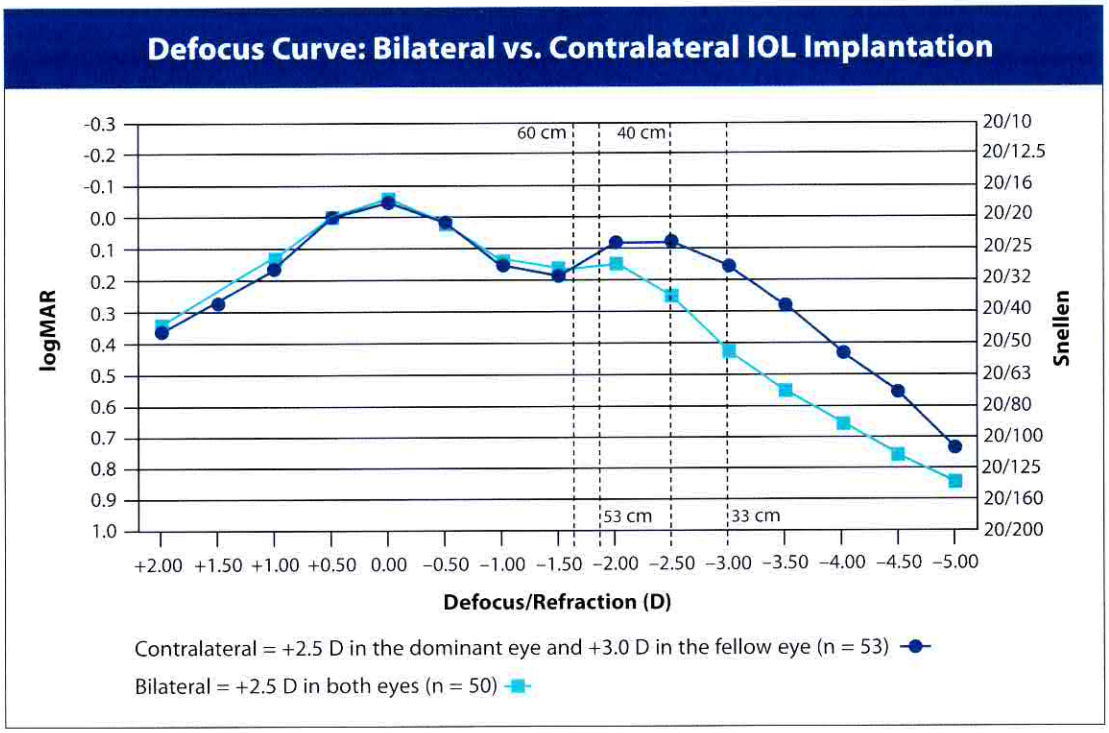

Figure. Study patients showed a good range of postoperative vision at all distances (20/40 or better).

Reprinted from J Cataract Refract Surg., *Volume 42/Edition 2, Nuijts RM, Jonker SM, Kaufer RA, et al, Bilateral implantation of +2.5 D multifocal intraocular lens and contralateral implantation of +2.5 D and +3.0 D multifocal intraocular lenses: Clinical outcomes, 194-202, 2016, with permission from Elsevier.*

and quality of distance vision are excellent and they do not mind wearing a pair of readers on occasion.

For patients who want better vision for extensive near tasks—at approximately 16 in or 40 cm—I offer them the option of a ReSTOR +3.0 D IOL in the contralateral eye (Figure). Nuijts and colleagues showed successful outcomes with contralateral implantation.[3] This combination approach may be especially useful for patients working in occupations that require near vision for a significant portion of the day. Another successful strategy I have employed for patients who desire a little more near vision is to target approximately −0.5 D of spherical equivalent in the nondominant eye with the ReSTOR +2.5 D IOL with the ACTIVEFOCUS optical design, with the intent of improving reading vision without compromising on distance vision.

Clinical pearls

With any presbyopia-correcting IOL, it is critical to manage low levels of existing astigmatism so patients have the least amount of residual astigmatism postoperatively. I generally prefer to target less than or equal to 0.5 D. In addition, I always make sure to optimize the ocular surface. Patients who have severe chronic dryness or tear film disturbances may not be appropriate candidates for a multifocal IOL. On the other hand, patients with mild or manageable dry eye tend to do well with the ReSTOR +2.5 D IOL with the ACTIVEFOCUS optical design as long as the ocular surface is well-managed.

The ReSTOR +2.5 D IOL with the ACTIVEFOCUS optical design offers newly adopting surgeons a user-friendly introduction to presbyopia-correcting IOL implantation because I have found that patient satisfaction with it tends to be high. In my view, it has an acceptable risk profile for both the patient and the surgeon in terms of balancing the rewards of an extended range of vision against the risk of visual disturbances. Based on my experience, it is unlikely to encounter a ReSTOR +2.5 D IOL patient dissatisfied with his or her vision.

References

1. AcrySof® IQ ReSTOR® +2.5 D Multifocal IOL Directions for Use. Alcon Laboratories, Inc.; Fort Worth, TX.
2. Mastropasqua L, Toto L, Mastropasqua A, et al. Femtosecond laser versus manual clear corneal incision in cataract surgery. *J Refract Surg.* 2014;30(1):27-33.
3. Nuijts RM, Jonker SM, Kaufer RA, et al. Bilateral implantation of +2.5 D multifocal intraocular lens and contralateral implantation of +2.5 D and +3.0 D multifocal intraocular lenses: Clinical outcomes. *J Cataract Refract Surg.* 2016;42(2):194-202.

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