

THE IDEAL MULTIFOCAL CANDIDATE



Which patients should never receive a premium IOL?

BY KEVIN M. MILLER, MD

Refractive cataract surgery provides an opportunity for the surgeon to address a patient's quality of vision at the time of cataract surgery. Premium IOLs such as multifocal lenses can help surgeons increase their patients' independence from glasses and contact lenses, but careful screening is necessary to achieve optimum refractive results. This article outlines some key factors to consider in order to understand when a patient may not be a suitable candidate for a premium lens.

THE HAPPY MULTIFOCAL IOL PATIENT

Sometimes, the best way to identify red flags is to understand their opposite. A happy multifocal IOL patient had uncomplicated surgery and achieved good uncorrected distance and near visual acuity in both eyes. That means the surgeon ensured that biometry and astigmatism measurements were accurate. Additionally, the patient's ocular surface was optimized prior to surgery, and the IOL was handled carefully prior to and during implantation—two factors that decrease the risk of postoperative visual disturbances.

Of the conditions just described, the most important is good

postoperative distance and near visual acuity. If a patient has to wear glasses after surgery, what was the point of implanting a multifocal lens?

THE UNHAPPY MULTIFOCAL IOL PATIENT

A patient who is unhappy after receiving a multifocal IOL likely experienced surgical complications, has poor postoperative visual acuity at distance or near, and/or has poor visual quality after surgery.

There are some common myths as to what constitutes a red flag for premium IOL candidates. For example, I have often heard that multifocal lenses are an inappropriate choice for engineers, pilots, or truck drivers, among other specific professions. I have also been warned against implanting premium lenses in patients with type-A personalities. In my opinion, these warnings are nonsense. An engineer, airline pilot, or truck driver may be very happy after receiving a multifocal IOL, whereas a patient with an easygoing personality may be very unhappy postoperatively. Any patient with a poor refractive result will be unhappy after multifocal IOL implantation, and anyone with a good refractive result and no comorbidities,

regardless of personality type, will be happy postoperatively. I believe it is really that simple.

A lot of surgeons tend to write off the complaining patient as someone with a type-A personality because it is an easy excuse. In fact, what such a patient is usually complaining about is that he or she cannot see well without glasses and therefore thinks, "I paid all this money, and I have to wear glasses?"

THE IDEAL MULTIFOCAL IOL CANDIDATE

Ideal candidates for multifocal IOLs do not need their arms twisted to choose a premium lens. If someone says, "I don't mind wearing reading glasses," then he or she is not a good candidate. The ideal candidate does not want to wear reading glasses but instead desires reduced spectacle dependence.

That said, it is important for patients to understand that, like any technology, multifocal IOLs have limitations. Patients should be willing to deal with some reduction in contrast sensitivity, glare, and halos. They may also have some difficulty reading under low-light conditions with certain IOL designs. If they are willing to put up with

"ANY PATIENT WITH A POOR REFRACTIVE RESULT WILL BE UNHAPPY AFTER MULTIFOCAL IOL IMPLANTATION, AND ANYONE WITH A GOOD REFRACTIVE RESULT AND NO COMORBIDITIES, REGARDLESS OF PERSONALITY TYPE, WILL BE HAPPY POSTOPERATIVELY. I BELIEVE IT IS REALLY THAT SIMPLE."

these limitations in order to reduce spectacle dependence, they are good candidates for the technology.

SIX CONTRAINDICATIONS

In addition to what I have already discussed, I look for six red flags when deciding whether a patient is a candidate for a premium IOL.

► **No. 1: Comorbidities.**

If someone has an ocular comorbidity in either eye (eg, severe dry eye disease, irregular astigmatism, epiretinal membranes, macular degeneration), he or she is not eligible for a multifocal IOL. In my practice, this means that 50% of patients are ineligible.

► **No. 2: Monofocal lens in the fellow eye.**

I strongly believe that, if a patient has a monofocal lens in the fellow eye, he or she is not a good candidate for a multifocal IOL. A lot of surgeons mix and match lenses, but I frequently

see patients who were treated with this approach and have postoperative visual complaints. My experience has warned me away from this surgical strategy. Patients will always prefer one eye over the other and blame the implant in the underperforming eye.

► **No. 3: Astigmatism.**

Toric multifocal IOLs are available, but they can correct only a limited range of astigmatism. If a patient has significant astigmatism or has irregular astigmatism, I will not implant a multifocal lens.

► **No. 4: Previous keratorefractive surgery.**

If a patient has a history of keratorefractive surgery, I will not implant a multifocal lens for two reasons. The first is quality of vision. These patients generally have some irregularity of the corneal surface, and any higher-order aberrations from the previous refractive surgery could affect their quality of vision with a multifocal IOL.

Second, if refractive surgery corrected a significant refractive error, the odds of accurately determining the lens implant power are not good. Patients who pay a lot of money for a premium IOL expect an excellent result.

► **No. 5: A problematic condition in either eye.**

If a patient has severe pseudo-exfoliation syndrome, I hesitate to implant a multifocal lens because it may serve the patient well for only a few years. The IOL may eventually decenter or dislocate. Multifocal lenses must be perfectly centered in the eye to produce high-quality vision. If the central ring of a multifocal lens is not entirely contained within the pupil, quality of vision will decrease.

► **No. 6: Disturbance of binocular vision.**

A patient with ocular misalignment might be a candidate for a multifocal IOL, but not a *great* candidate. I would have to tell him or her, "I'm going to implant this lens, and then I'll do eye muscle surgery to get your eyes straight." I would not be able to guarantee that I will completely fix the misalignment. I might get the patient only to the point where he or she could tolerate prism glasses, but the patient will consider that to be a failure if his or her goal was to get out of glasses. I generally avoid implanting multifocal lenses in such patients. ■

KEVIN M. MILLER, MD

■ Kolokotronis Chair in Ophthalmology,
David Geffen School of Medicine at UCLA,
Jules Eye Institute, Los Angeles
■ kmiller@ucla.edu
■ Financial disclosure: Consultant
(Alcon, Carl Zeiss Meditec,
Johnson & Johnson Vision)