

Refractive IOLs— The Focus Has Shifted

At the recent ASCRS meeting in San Diego, interest in accommodating IOLs (this month's cover focus) was extremely high. An overflowing audience paid \$2,000 each to attend the Eyeonics, Inc. (Aliso Viejo, CA), certification course for the Crystalens, which received FDA approval in November 2003. David Leaming, MD, reported that 100% of respondents to the 2003 ASCRS survey expressed a "strong interest" in accommodating IOLs, a sharp contrast to declining overall interest in multifocal IOLs among those surveyed.¹

Ironically, it was at the ASCRS meeting in the same city 6 years ago that the first FDA-approved multifocal IOL was met with even greater excitement, curiosity, and optimism. As with the Crystalens now, the results from clinical trials of the Array multifocal IOL (Advanced Medical Optics, Inc., Santa Ana, CA) indicated good uncorrected near/distance acuity, decreased spectacle dependence, and high patient satisfaction. What have we learned during the past 6 years, and how will the Crystalens experience be different?

First, with multifocal IOLs, patient satisfaction and spectacle independence require emmetropia and a healthy macula. Without these, Array patients generally experience the optical drawbacks of multifocal IOLs—glare, halos, and decreased contrast sensitivity—without the benefits. The inability to preview or reverse these unwanted images scares away many patients otherwise interested in reducing their spectacle dependence. Finally, because the multifocal IOL has primarily been implanted in the cataract population, happy patients cannot differentiate the benefits of the Array from the benefits of cataract removal. As a result, there is virtually no patient-generated, word-of-mouth demand for this technology. In return for the increased expectations, chair time, and pressure to perform perfect biometry and surgery, as well as the greater potential for patient dissatisfaction with nighttime images, surgeons receive no more remuneration or patient appreciation when they implant an Array lens than they do with a standard cataract operation. In this context, the declining inter-

est in multifocal IOLs is not surprising.

An accommodating IOL offers this advantageous prospect: even if their postoperative uncorrected near vision is disappointing, patients will be no worse off than if they had received a monofocal IOL. In addition, the Crystalens is being marketed and used as a refractive rather than a cataract technology. Similar to multifocal IOLs, it demands flawless biometry, astigmatism control, and surgical technique. Of course, as with any new technology, many questions remain. Does the Crystalens provide pseudoaccommodation or true lens movement? Will the effect last? Will its small, 4.5-mm optic and the novel haptic design create problems with glare and centration? Will this lens work for myopes, given that the effective accommodative shift should be proportional to the dioptric power of the lens? Will long-term adoption of this IOL in the US be better than it has been in Europe? Until we know the answers to such questions, surgeons should heed Mark Packer, MD's advice to "promise less and deliver more" when presenting this



option to patients.

This issue of *Cataract & Refractive Surgery Today* also introduces a new regular column on complications management edited by Robert Cionni, MD; Michael Snyder, MD; and Robert Osher, MD, all of the Cincinnati Eye Institute. For this new column, *CRSToday* will survey several experts about managing specific intraoperative complications. This Cincinnati Eye triumvirate has been synonymous with superlative instruction in complications management, and we are privileged to have them direct this column on an ongoing basis. ■

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1. Leaming DV. Practice styles and preferences of ASCRS members—2003 survey. *J Cataract Refract Surg.* 2004;30:892-900.