

Multifocal Implantation When Vision is Paramount

Use of the AcrySof IQ ReSTOR Multifocal IOL in hearing impaired individuals.

BY BARRY A. SCHECHTER, MD

During the past few years, I have treated a subgroup of 15 deaf individuals with cataracts who do not use cochlear implants. Physicians sometimes decline serving this group of patients because the healthcare provider is financially responsible for providing a deaf translator for each patient visit. Because these patients are almost wholly dependent on their visual system in order to communicate with the outside world, developing cataracts curtails their interactions. Thanks to their motivation to be less dependent on glasses, I have found these individuals to be excellent candidates for the AcrySof IQ ReSTOR multifocal lens implant (Alcon; Figure 1).

PATIENTS' PROFILES

All patients in this subgroup are completely deaf and fully dependent on their visual acuity. They rely on lip reading, sign language, and closed-caption telephones to communicate with others. All were between the ages of 64 and 78 and live in retirement communities.

The first deaf patient who came to see me was a 70-year-old woman with cataracts. When I explained the options for lens implants (traditional monofocal versus advanced-technology multifocal IOLs), she said she wanted to minimize her need for glasses after the surgery as much as possible while retaining the high-quality vision she relied on. Finances were not an issue for this patient, and she agreed to try the AcrySof IQ ReSTOR IOL +3.0 in both eyes. Postoperatively, she achieved 20/25 UCVA bilaterally, and now that she is 3 years out from surgery, her visual acuity remains 20/30+ with J2 at near.

After her surgery, this patient referred 15 deaf individuals who also needed cataract surgery. Those highly motivated individuals who chose the AcrySof IQ ReSTOR multifocal IOL have been very happy. They are able to read, work on a computer, communicate in sign language with other people, and perform other daily tasks with almost no use of glasses.

PERIOPERATIVE CONSIDERATIONS

On their respective days of surgery, I spoke with these patients via a translator during their preoperative period

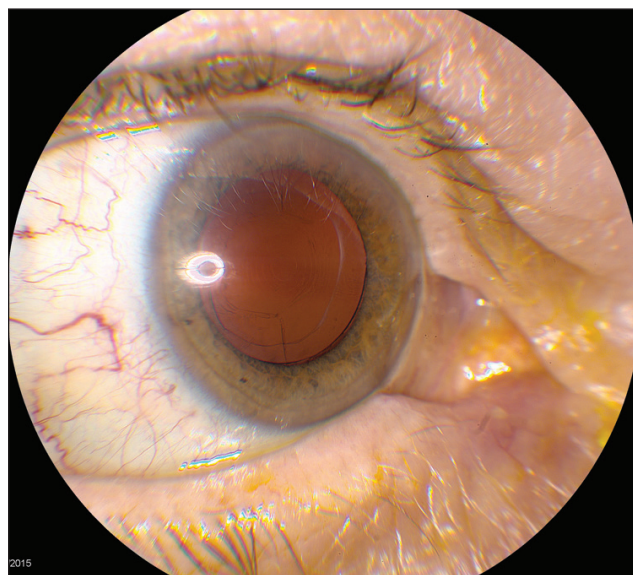


Figure 1. A well-centered AcrySof IQ ReSTOR IOL +3.0 D in the eye of a deaf patient on postoperative day 1.

and in postoperative recovery. The translator could not accompany them to the OR, so we used simple hand signals to communicate. For example, I told them to raise 1 finger if they felt any discomfort; 2 fingers for real pain. None of these individuals encountered any difficulties during surgery. Each one received nonpreserved lidocaine. I manually created each capsulorhexis, marking the cornea without ink to stay within a 5-mm diameter. I was able to implant the AcrySof IQ ReSTOR IOL uneventfully per my usual routine.

OUTCOMES

The postoperative acuity of these patients has ranged from 20/30 to 20/20 UCVA at distance and J3 to J1+ at near. Two patients had mild preoperative retinal issues due to diabetes. The pathology was not significant clinically, but it may have precluded them from reaching 20/20 UCVA with the lens. All of these patients had a normal course of follow-up and are very happy with their

AcrySof IQ ReSTOR Multifocal IOL



Figure 2. The AcrySof IQ ReSTOR IOL.

outcomes. It has been 2 to 3 years since the surgery for most patients, and they continue to function normally. The incidence of glare and halos has been very low and usually occurs at night, but most patients report that it does not interfere with their activities. In fact, a clinical study showed that more than two-thirds of patients experienced none-to-mild glare and halos, and 88% had none-to-mild night vision visual disturbances.¹ I warned them, as I do for all patients, about this possibility preoperatively. Eight eyes developed posterior capsular haze postoperatively, which resolved after an Nd:YAG capsulotomy, and they resumed their excellent acuity.

DISCUSSION

Multifocal implantation is more risky in deaf individuals, because of this population's dependence on their vision. Although I was cautious at first, I made sure that all of these patients were well informed about the risks of the surgery. Overall, my experience with this patient group has been highly positive. As with all patients, the surgeon must confirm that a hearing-impaired person is a good candidate for implantation with a multifocal lens and does not have any pathology that would preclude a good outcome. In any elderly population, there can be macular drusen or diabetic retinopathy. As with my patients without hearing impairment, these individuals must have realistic expectations that they may have to use glasses for certain tasks or under some lighting conditions. All of the hearing-impaired patients I have treated were very realistic about the capabilities of the lens, and they were great candidates for the AcrySof IQ ReSTOR IOL (Figure 2) overall. All of the AcrySof IQ ReSTOR IOL recipients have been functioning with minimal need of their glasses. It has been a win-win situation for all. ■

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1. AcrySof® IQ ReSTOR® IOL Directions for Use.



CAUTION: Federal Law restricts this device to sale by or on the order of a physician.

INDICATIONS: The AcrySof® IQ ReSTOR® Apodized Diffractive Optic Posterior Chamber Intraocular Lens (IOL) is intended for primary implantation for the visual correction of aphakia secondary to cataractous lens in adult patients with and without presbyopia, who desire near, intermediate and distance vision with increased spectacle independence. This lens is intended to be placed in the capsular bag.

WARNINGS: Careful preoperative evaluation and sound clinical judgment should be used by the surgeon to decide the risk/benefit ratio before implanting a lens in a patient with any of the conditions described in the Directions for Use Labeling. Some adverse reactions that have been associated with the implantation of intraocular lenses are: hypopyon, intraocular infection, acute corneal decompensation, macular edema, pupillary block, retinal detachment, and secondary surgical intervention (including but not limited to repositioning, biometry error, visual disturbances or patient dissatisfaction). As a result of the multifocality, some visual effects (halos or radial lines around point sources of light at night) may also be expected due to the superposition of focused and unfocused multiple images. A reduction in contrast sensitivity may also be experienced by some patients especially in low lighting conditions such as driving at night. In order to achieve optimal visual performance with this lens, emmetropia must be targeted. Patients with significant preoperative or expected postoperative astigmatism > 1.0 D may not achieve optimal visual outcomes. Care should be taken to achieve IOL centration, as lens decentration may result in a patient experiencing visual disturbances under certain lighting conditions. **PRECAUTIONS:** Do not resterilize. Do not store over 45°C. Use only sterile irrigating solutions such as BSS® or BSS PLUS® Sterile Intraocular Irrigating Solution. Clinical studies with AcrySof® ReSTOR® IOL indicated that posterior capsule opacification (PCO), when present, developed earlier into clinically significant PCO. Studies have shown that color vision discrimination is not adversely affected in individuals with the AcrySof® Natural IOL and normal color vision. The effect on vision of the AcrySof® Natural IOL in subjects with hereditary color vision defects and acquired color vision defects secondary to ocular disease (e.g. glaucoma, diabetic retinopathy, chronic uveitis, and other retinal or optical nerve diseases) has not been studied. The long-term effects of filtering blue light and the clinical efficacy of that filtering on the retina have not been conclusively established.

ATTENTION: Reference the Physician Labeling/Directions for Use for a complete listing of indications, warnings, and precautions.

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