From center to periphery, zones one, three, and five are devoted to far vision. One feature of the ReZoom is that the width of the zones from center to periphery are decreased, creating the balanced view optics. The lens is an acrylic IOL, and it ranges from 6.00 D to 30.00 D. The ReZoom adds 3.50 D at the lens plane and 2.50 D at the spectacle plane.

MF4. This was the first autofocus hydrophilic acrylic multifocal lens. It is implanted through a 3.0-mm incision, and should be used in patients who do not have preexisting heavy ocular pathologies. The MF4 has a 6.00-mm optic diameter, and it adds 4.00 D to lengthen the focal depth of the eye. It is available in 15.00 D to 26.00 D. The lens has a tripod design, providing self centration; one multifocal side has four refractive zones. From center to periphery, zones one and three are devoted to near vision.

M-Flex. The M-Flex refractive multifocal has an square edge. Available in 18.00 D to 23.00 D, it provides a distance dominant focus. This hydrophilic acrylic lens

THE BENEFITS OF MIX AND MATCH IMPLANTATION

BY MAGDA RAU, MD

To satisfy the individual needs of patients after multifocal lens implantation, we have—in the past—implanted two refractive lenses, the MF4 (Carl Zeiss Meditec AG, Jena, Germany) and the Array (Advanced Medical Optics, Santa Ana, California), in the eyes of one patient. We asked the question: "Will the implantation of different multifocal IOLs (ie, diffractive and refractive) keep or even increase the advantages of both lenses and further increase postoperative satisfaction?"

MATERIAL AND METHODS

From September 2005 to May 2006, 10 patients received a refractive multifocal IOL (ReZoom; Advanced Medical Optics) in one eye and a diffractive multifocal IOL (Tecnis; Advanced Medical Optics) in the other eye after phacoemulsification via a clear corneal incision. The capsulorrhexis was between 4.0 mm and 4.5 mm—smaller than usual—with the aim of achieving a better lens centration. IOL implantation was carried out with the Unfolder Series (Advanced Medical Optics Inc.). Preoperative refraction ranged from +5.25 D to -4.50 D.

Enrolled patients were aged from 48 years to 72 years (mean age, 62 years) and had billateral cataract; no retinal and optic nerve pathology; the strong desire to achieve spectacle independence; and the willingness to accept possible visual side effects including halos and glare. Excluded from the study were patients with astigmatisms more than 1.25 D; demanding patients with extremely high expectation for postoperative vision; patients with glare; and patients who were never satisfied with multifocal spectacles.

RESULTS

The mean UCVA for distance was 0.83, while the mean BCVA was 0.86, with a mean correction of -0.23 D. The mean intermediate UCVA (70 cm) was 0.68, and the mean near UCVA (30 cm) was 0.70. To evaluate (1) postsurgical patient satisfaction, (2) optical side phenomena, (3) and spectacle independence, we asked patients to anonymously answer an appropriate questionnaire 3 months after surgery. All patients were satisfied with their optical results.

Eighty percent of patients were free from glare. Of the 20% who had glare, none found it disturbing. Halos were experienced by 40% of our patients, however, only 10% rated them as disturbing when driving at night.

The rate of achieved spectacle independence was 80%. Of those patients who needed reading spectacles, it was for occasional small print materials (eg, medication leaflets) or during reading in dim lighting conditions.

CONCLUSION

Mixing a diffractive and a refractive multifocal IOL (ie, Tecnis and ReZoom, respectively) offers excellent intermediate, distance, and near vision and provides good visual function across a range of distances. This results in high rates of spectacle independence and 100% patient satisfaction. This excellent satisfaction rate was, in our opinion, because of the careful patient selection and education. All patients were informed about potential visual side effects, glares, and halos. Furthermore, we did not promise patients complete spectacle freedom, only independence. Mixing and matching a diffractive and refractive IOL also offers the maximum strength of refractive and diffractive technologies to provide greater spectacle independence. In my opinion, it is the right answer to increase patients' needs and expectations. The option of mixing and matching gives each surgeon the possibility of satisfying a larger share of patients. ■

Magda Rau, MD, is the Head of the Privatklinik-dr.Rau Cham, in Germany. Dr. Rau states that she has no financial interest in the products or companies mentioned. She may be reached at info@augenklinik-cham.de.