OCCLUSION

(Continued from page 20)

achieve a plano result (Table 1). It also revealed that her corneal astigmatism was significant enough to warrant CRIs.

One month after cataract surgery with a multifocal IOL and CRIs, her uncorrected visual acuity (UCVA) OS was 20/20 and J1+ with a manifest refraction of −0.25 + 0.25 × 006°. She was very satisfied with her new vision and enthusiastically looked forward to having surgery on her right eye.

Had we based the surgical plan on initial data without the benefit of punctal occlusion, the patient would likely have ended up with a manifest refraction of −0.75 + 0.75 × 045 at best. Thus, preoperative treatment can mean the difference between needing to perform an enhancement procedure on an unsatisfied patient and having a very satisfied patient with a premium lens.

CASE 2

A 65-year-old white female presented 1 week after uncomplicated cataract surgery with a multifocal IOL (Tecnis Multifocal IOL, Abbott Medical Optics) in the left eye. She complained that the eye felt “sandy” and that her vision had worsened after postoperative day 1. Her manifest refraction was −0.50 + 1.50 × 175° yielding UCVA of 20/50 and J3. Postoperative dry eye and irregular astigmatism were diagnosed (Figure 3). A punctal plug was easily inserted into her left lower eyelid, and the potential need for corneal relaxing incisions was discussed.

One month later, UCVA had improved to 20/25 and J1. Her MR was −0.25 + 0.75 × 178°, and the ocular foreign body sensation had resolved. The total wavefront error improved from 1.089 to 0.580 μm, while the root mean square (RMS) for a 3-mm pupil improved from 0.93 to 0.31 D, corresponding to a much sharper and more regular placido image (Figure 4).

Three months later, she was offered the option of a small CRI that further improved her UCVA to 20/20 and J1+, residual MR to +0.25 D sphere, total wavefront error to 0.349 μm, and RMS to 0.22 D.

PATIENT SATISFACTION

In this case, treatment of postoperative dry eye using punctual occlusion turned an unhappy patient with a multifocal IOL into a happy one. The improvement in her refraction with treatment demonstrates the importance of optimizing the ocular surface before performing costly and/or invasive corrective procedures that may further stress an already compromised ocular surface.

Ultimately, the goal of multifocal lens implantation is patient satisfaction with the visual outcome. Punctal occlusion before and after premium IOL surgery is a fast, safe, effective, and affordable treatment to improve both patient and physician satisfaction greatly.

References

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