

Everything's Relative

Preoperative visual function is a major factor in patients' postoperative level of satisfaction.

BY LEE T. NORDAN, MD



As surgeons who deal with visual function constantly, we may sometimes forget how meaningful even a few lines of visual improvement can be. A slight improvement for patients who have very poor visual function usually results in deep

gratitude, assuming that they had realistic expectations prior to surgery for the outcome. Patients with poor vision generally appreciate any improvement they can achieve and realize acutely that even compromised vision is far superior to blindness. I suspect, however, that a significant minority of 45-year-old presbyopes with BCVAs of 20/15 will not tolerate the glare associated with current multifocal IOL optics as well as 75-year-old cataract patients with poor vision. Everything is relative.

PERSONAL CASE EXAMPLES

My dad is 95 years old and as sharp as a tack. My mom is 87 and just as quick-witted. Eight to 10 years

ago, Dad was diagnosed with bilateral age-related macular degeneration. He underwent a vitrectomy and subsequent phacoemulsification/PCIOL implantation in his right eye. After recovering from a hip fracture, he developed a dense nuclear sclerotic cataract in the left eye. As of December 1, 2007, his BCVA was 20/200 OD and 20/400 OS. On December 6, 2007, he underwent cataract extraction by phacoemulsification with the implantation of a single-vision PCIOL in his left eye.

Two days postoperatively, the correctable vision in Dad's left eye had improved to 20/80—a mild improvement to a surgeon but not to my father, who is thrilled. With readers, he can now read the secondary headlines in the newspaper, see the numbers on a phone to make a call, and perceive facial expressions. Overall, he has a feeling of independence, although he really is not much more independent than he was preoperatively. A change in BCVA from 20/200 to 20/80 has greatly improved his general outlook and level of happiness.

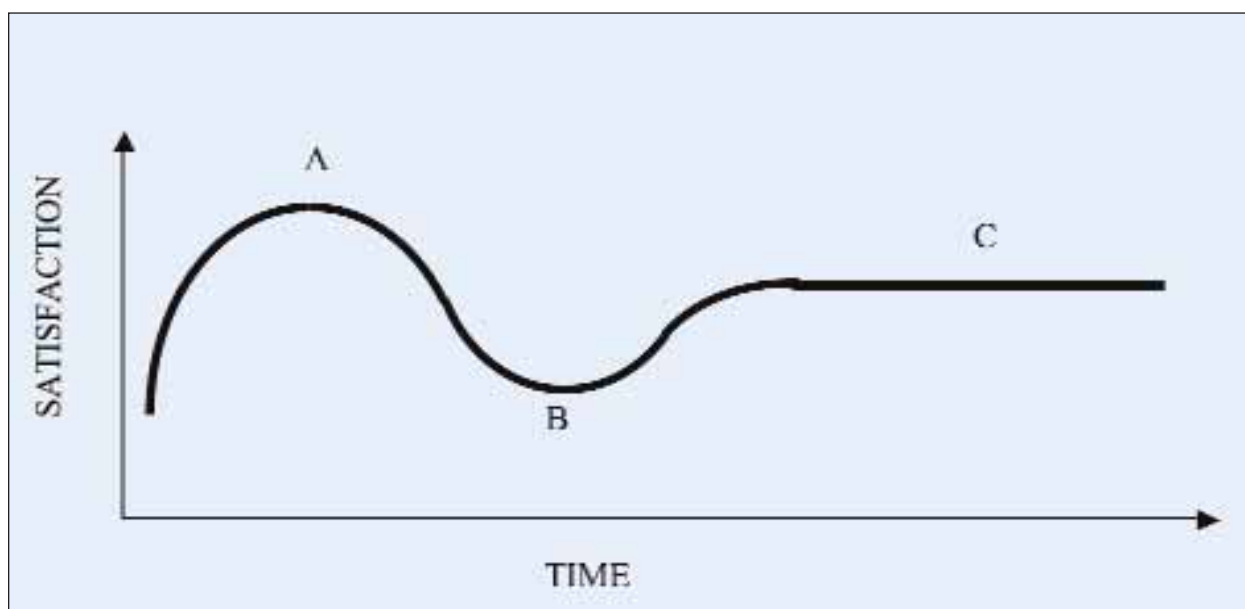


Figure 1. This curve depicts the author's interpretation of a common trend with respect to the level of satisfaction expressed by eye surgeons as they gain experience with a new ophthalmic device. Overreaching expectations (A) are tempered by problems encountered (B) on the way to long-term, appropriate acceptance (C). Newer, improved technology can interrupt this curve at any time.

In contrast, any surgeon who implants a multifocal IOL in my mom's eye when she requires cataract surgery will likely convert this pleasant lady into a very disappointed patient. Mom's vision is currently correctable to 20/20+ OU with a refraction of +1.50 D sphere OU. She has no surgical history except for a tonsillectomy more than 80 years ago. She has been hyperopic her entire life, with a UCVA and BCVA in the range of 20/15. She is used to wearing glasses for near tasks. Although she would prefer to be without them, she will most likely not trade this inconvenience for nighttime glare and a loss of contrast sensitivity. She would not appreciate "20/20 blurry," and monovision would probably be a disaster, because her vision has always been too sharp for her to accept even a small degradation. Single-vision PCIOLs with readers will do just fine. Thank you.

KEEPING STANDARDS HIGH

The use and acceptance of multifocal IOLs is following a familiar course (Figure 1). After years of rave reviews, many surgeons now admit publicly that a significant number of patients experience the problems of glare and halos with current IOL models. Some ophthalmologists have even reverted to requesting various forms of pseudophakic monovision. To be sure, multifocal IOLs have been a major advance in cataract/PCIOL surgery. It is important that we not rest on our laurels, however, but realize that we must continue to raise the bar for improved optical function with multifocal IOLs.

Phakic and pseudophakic multifocal IOLs, corneal implants, and keratorefractive surgery, in one form or another, are destined to continue changing the ophthalmic surgical landscape in the near future as we face the challenge of correcting presbyopia. Although a multifocal IOL, and perhaps these other forms of presbyopic treatment, have too many advantages to be ignored, we must also scrutinize the quality of vision they provide.

Surgeons can only offer modalities that are available, but there is a tendency to reduce expectations to the average outcome that a particular surgery is achieving. Having warmed up with keratorefractive surgery for 25 years, we are ready to tackle presbyopia surgically, but let's keep our standards high. We can, and will, succeed. ■

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