ISRK Panel: Managing high myopia

The following is excerpted from a panel discussion that took place at the 1993 Mid-Summer Symposium of the International Society of Refractive Keratoplasty in Minneapolis. The topic was the management of high myopia.

Under the format of the proceedings, Neal A. Sher, MD, of Minneapolis, spoke on the topic for several minutes, followed by discussion by the panel.

Panelists included J. Charles Casebeer, MD, of Flagstaff, Ariz.; Casimir A. Swinger, MD, of New York; Richard L. Lindstrom, of Minneapolis; and Noel A. Alpins, MD, of Melbourne.

Noel A. Alpins: In Melbourne we have been treating high myopia up to 18 D for twelve months now. We looked carefully at the various treatment paradigms recommended by VisX and performed in other centers. Our analysis of the anticipated geometry of the crater walls suggested that transition edges obtained at the junctions of the zones would be smoothest by apportioning equal dioptric corrections to each zone; that is 50:50 for two zone or 33:33:33 for three zone. We decided to go with this and so far the results are impressive with stability of the resultant spherical equivalents, achieved by three months. I guess the most common problem is undercorrection, which is certainly better than overcorrection, but in the world of enhancements, certainly excimer is a much better operation to enhance, perhaps somewhere between about three to six months later. The initial procedure thins the cornea from about 550 μm down to usually no lower than 400, so you can still take more off with the excimer and just put whatever the refractive error is, be it −3 D or −2 D, put that straight into the machine software. ALK would be much more difficult.

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—Noel Alpins

Complications of PRK include corneal haze, decentration, night glare and irregular astigmatism. We didn't see any delayed corneal peelings, erosions or ocular hypertension. In one case the topography was distorted. The patient had glare and shadowing. Fortunately, between 12 and 18 months he started to improve, and his best-corrected vision with spectacles is now 20/20; at six months, it was only 20/40, and it was of great concern.

—Neal A. Sher

You can be a highly skilled surgeon and have someone who's botched up your instrument by not putting the blade in right, or somebody dropped it when they cleaned it, and you didn't know it, and have all the problems of somebody miscalibrating a laser. Spend some time learning how to do this and practice a lot.

—Richard L. Lindstrom

There's no doubt that a keratomileusis procedure has an extraordinarily rapid rehabilitation. Whether you're doing a BKS or an ALK, patients can see 20/25, 20/30 the next day with excellent topography. It's extraordinary. The skill level required for this type of surgery is a level or two above what's required.

—Casimir A. Swinger