

At Issue: is there a place in the future of refractive surgery for both PRK and LASIK?

Q *At Issue* posed the following question to a panel of experts: "Do both PRK and LASIK have a place in the future of refractive surgery and why?"

A **Both LASIK and PRK will be principal treatment modes**

Noel A. Alpins, MD, FACS: At the speed that developments in refractive surgery occur, who would want to predict their favored surgical technique beyond 5 years from now? Certainly until that time I see both laser in situ keratomileusis (LASIK) and photorefractive keratectomy (PRK) being my principal treatment modes, with LASIK continuing as the most frequent treatment for greater than 90% of all laser refractive corrections.

Many innovations have been introduced into the PRK technique over the past 5 years to speed recovery and reduce haze. These include the rotary brush for removal of epithelium, tissue cooling by ice packs and chilled balanced salt solution, smoother ablations with new generation devices and MZMP algorithms and the use of a contact lens postoperatively that speeds epithelial healing and reduces epitheliogenic haze. This wearing of a contact lens also enables PRK to be performed bilaterally for low myopic errors so that functional vision and minimal disability is experienced following surgery.

There is arguably even a place for the "new PRK" for those higher myopes just beyond the range of LASIK in thin corneas. Intracameral lenses may soon become unrestricted and their type and placement in the eye more defined with acceptable rates of

secondary treatments and cataractogenesis. Intacs intrastromal corneal ring segments (KeraVision Inc., Fremont, Calif.) have so far been approved for the largest segment of myopes (-1 D to -3 D) and are in clinical studies for the potential treatment of hyperopic astigmatism, keratoconus, a wider range of myopia and post-LASIK complications.

The limits of LASIK are defined by the amount of refractive error and remaining untreated corneal tissue. The regions beyond these limits are addressed by the techniques competing with LASIK such as ICL and lens extraction. Time will tell whether expansion of their recommended lower level of treatments further narrows the parameters for LASIK.

LASIK continues to be the preferential mode of treatment for all corrections where the remaining untreated corneal thickness allows. Even for lesser corrections, LASIK is the most frequent choice of most patients because of its safety, convenience and speed of visual recovery. The ultimate refinement of LASIK is awaiting the "perfect" microkeratome that will significantly reduce prevailing surgical risk. This microkeratome, of the not too distant future, probably will not require a conventional surgical blade. **ASH**

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