PRK Touchup on LASIK-Treated Eyes

BY SANDY T. FELDMAN, MD; LOUIS E. PROBST, MD;
WILLIAM B. TRATTLER, MD; AND STEPHEN A. UPDEGRAFF, MD

Do you perform PRK over previous LASIK? If so, what technique do you use, and what complications have you encountered?

SANDY T. FELDMAN, MD

I perform PRK over previous LASIK in individuals seeking late enhancements, particularly patients who have had prior flap-related complications or who underwent LASIK at another practice when the flap's edges are not visible. It is generally accepted that these patients are at increased risk of developing epithelial ingrowth. A less-than-perfect flap may be contributing to their symptoms. When I perform advanced surface ablation, I carefully loosen the epithelial well. I use mitomycin C (MMC) for a high correction, if the eye had a prior problem with the flap, or if the patient has a systemic issue like keloids.

LOUIS E. PROBST, MD

For several years, I have been performing customized PRK (VISX CustomVue; Abbott Medical Optics Inc., Santa Ana, CA) on eyes treated with LASIK more than 12 months earlier. I prefer this technique to lifting the flap, because the risk of epithelial ingrowth increases the further out the patient is from the original LASIK procedure. I use the Amoils brush for quick, precise epithelial removal in primary PRK. I apply 100% ethanol for 10 seconds for enhancements to remove the epithelium, because the Amoils brush can move the previous LASIK flap. Haze is the only additional risk of PRK over LASIK, so I apply MMC for 10 seconds, which essentially eliminates this risk. My results with this technique have been excellent.

Some of my colleagues at TLC The Laser Eye Centers have also experienced great success with the IntraLase FS laser (Abbott Medical Optics Inc.) for side-cut enhancements. The main risk associated with this technique is an intersecting flap edge, which can be avoided by marking the original flap's edge prior to performing the side cut.

WILLIAM B. TRATTLER, MD

Surface ablation has been my procedure of choice to enhance previous LASIK for the past 6 years. In the late 1990s, this technique was considered taboo because it was associated with a high rate of corneal haze. Surgeons' better understanding of haze control and the use of MMC have helped to dramatically reduce the risk of corneal haze.

With regard to technique, I highly recommend diluted alcohol to loosen the epithelium, which I carefully slide away from the LASIK hinge. Surface ablation to enhance previous LASIK is easy to perform and can often help improve the BCVA of eyes in which the LASIK flap was created with a mechanical microkeratome. These flaps often have microstriae that affect visual acuity. After epithelial removal, the laser ablates the anterior cornea, and the microstriae are smoothed. Techniques like epi-LASIK and the use of the Amoils brush are associated with a risk of displacing the flap.

STEPHEN A. UPDEGRAFF, MD

There are only two instances in which I would perform PRK over microkeratome-assisted LASIK: an inadequately thick bed or previously untreated Bowman's folds. For the past 6 years, I have used the IntraLase FS laser for my LASIK procedures. There appears to be a trend in which surgeons who use a femtosecond laser to create the LASIK flap are turning to PRK for routine enhancements. I believe this tendency stems from the fact that a femtosecond flap is not only more adherent, but it is also more fragile than LASIK flaps created with a microkeratome. Femtosecond flaps require a different lifting technique, which can be performed safely after 1 year if necessary. In my opinion, the success of a LASIK practice depends on whether its surgeon can effectively do flap-lift retreatments for 40-plus-year-olds with 20/25 uncorrected vision.

One must not forget that it is generally accepted that the ultimate advantage of LASIK is that it bypasses

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> *- Louis E. Probst, MD*

most of the surface wound healing factors that make PRK less predictable. MMC has made PRK over LASIK possible. Cases 10 years ago were fraught with significant haze and remodeling. PRK over LASIK with MMC is effective after customized LASIK ablation when intraoperative pachymetry indicates that the bed is thinner than expected. I apply MMC 0.01% for 30 seconds, which prevents haze without inducing the toxic effects of the 0.02% concentration. ■

Section editor John F. Doane, MD, is in private practice with Discover Vision Centers in Kansas City, Missouri, and he is a clinical assistant professor with the Department of Ophthalmology, Kansas University Medical Center in Kansas City, Kansas. Dr. Doane may be reached at (816) 478-1230; jdoane@discovervision.com.

Sandy T. Feldman, MD, is medical director of ClearView Eye & Laser Medical Center in San Diego. Dr. Feldman may be reached at (858) 452-3937; sfeldman@clearvieweyes.com.

Louis E. Probst, MD, is the national medical director of TLC The Laser Eye Centers in Chicago; Madison, Wisconsin; and Greenville, South Carolina. He is a consultant to Abbott Medical Optics Inc. Dr. Probst may be reached at (708) 562-2020.

William B. Trattler, MD, is the director of cornea at the Center for Excellence in Eye Care in Miami, the chief medical editor of Eyetube.net, and co-chief medical editor of Advanced Ocular Care. *Dr. Trattler may be reached at (305) 598-2020; wtrattler@earthlink.net.*

Stephen A. Updegraff, MD, is the medical director of Updegraff Vision in St. Petersburg, Florida. He acknowledged no financial interest in the product or company he mentioned. Dr. Updegraff may be reached at (727) 822-4287; updegraffmd@upvision.com.

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