Evaluation of One-Year Outcome of Topography-Guided Photorefractive Keratectomy and Collagen Cross-Linking for Post-LASIK Ectasia

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Introduction:

Crosslinking (CXL) may be used to treat post-LASIK ectasia. We evaluated trans-epithelial, Topography-Guided Photorefractive Keratectomy (TG-PRK) with CXL for post-LASIK ectasia using a Schwind Amaris 1050 excimer laser (SA).

Methods:

Post-LASIK ectatic eyes that underwent treatment with the SA CXL were evaluated. Preoperative and 12-month postoperative uncorrected distance visual acuity (UDVA), best corrected visual acuity (CDVA), manifest refraction, and topographic cylinder were analyzed.

Results:

82 eyes with complete data at 12 months were included. 59 eyes (72%) showed UDVA ≥6/12 post-operatively. 36 eyes (41%) had improved CDVA. Mean astigmatism changed from -3.31±1.61D to -1.11±1.06D. Mean spherical equivalent improved from -1.28±2.68D to -0.45±1.53D. 21 eyes (26%) gained 2 or more lines while 1 eye (1.2%) lost 2 lines. No cases showed ectatic progression.

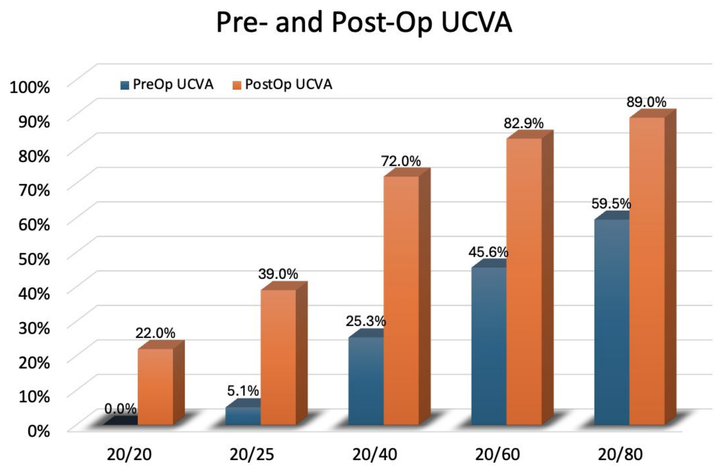
Conclusion:

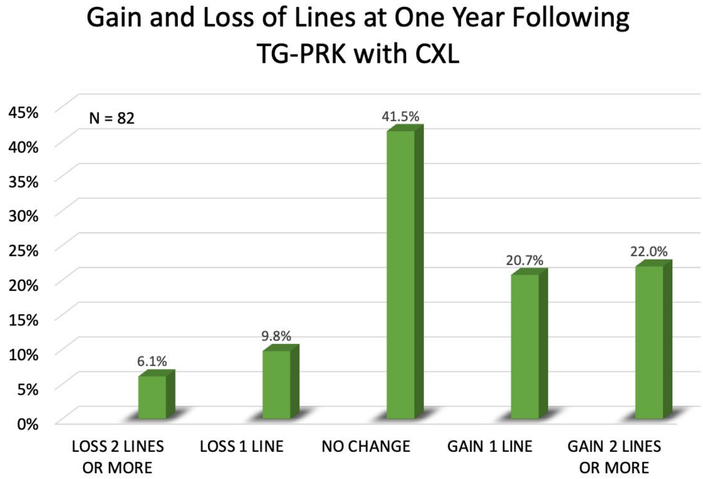
One-year results of TG-PRK with CXL as a treatment for post-LASIK ectasia shows safety and efficacy as a potential treatment for post-LASIK ectasia. The technique is an alternative treatment in magaging post-LASIK ectasia in patients who are contact lens intolerant.

Spherical Equivalent	Pre-Op	Post-Op
Average	-1.28	-0.45
Standard Deviation	2.68	1.53

Astigmatism	Pre-Op	Post-Op
Average	-3.31	-1.11
Standard Deviation	1.61	1.06

Refractive Outcomes:





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