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Wound healing after corneal cross-linking appears to follow consistent pattern

SAN DIEGO — A reliable time course for corneal cross-linking outcomes can be observed up to 1 year, according to a study presented here.

"There is a consistent time course of wound healing after cross-linking," Peter S. Hersh, MD, an OSN Refractive Surgery Board Member, said at the American Society of Cataract and Refractive Surgery meeting.



Peter S. Hers

The prospective, randomized, single-center study assessed 85 eyes that underwent corneal collagen cross-linking, 56 with progressive keratoconus and 29 with corneal ectasia. Follow-up was 1 year.

Corneal cross-linking resulted in worsened outcomes at 1 month that returned to baseline measurements at 3 months; outcomes improved between 6 months and 12 months and stabilized after 1 year, Dr. Hersh said

He and colleagues found no significant change in refraction and astigmatism, and of the seven topography indices analyzed, four showed significant improvement at 12 months.

• Disclosure: No products or companies are mentioned that would require financial disclosure.

PERSPECTIVE

Corneal cross-linking is a new and effective procedure. The traditional way to perform it, with disepithelization, is effective but not without complications, and after years of research, I prefer to perform it transepithelially. The epithelium is universally recognized as an osmotic membrane, so it has the capability, if properly managed, to activate pumps among cells in order to permit penetration of different substances in the corneal stroma. Our lab results are promising.

Clinical practice around the world will be influenced by the results of research such as that conducted by Dr. Hersh and his colleagues, as it will aid in putting the transepithelial method into practice. Similar to what occurred with photorefractive keratectomy and LASIK, the traditional method was and is still useful to better understand the mechanisms of the epithelium. However, after 3 years of research, we have observed no complications, no adverse effects, no postoperative steroids and high patient satisfaction, as well as stability, for the transepithelial method. Moreover, I believe that, as new protocols arise, the method will soon be faster.

- Roberto Pinelli, MD

Scientific Director, Istituto Laser Microchirurgia Oculare, Italy Disclosure: No products or companies are mentioned that would require financial disclosure.