CXL NOW (FINALLY) A GLOBAL PROCEDURE

In April 2016, many US surgeons received news that they had been waiting too many years to hear: The riboflavin ophthalmic solutions Photrexa and Photrexa Viscous and the KXL System (all by Avedro) were approved by the US FDA for the treatment of progressive keratoconus and post-LASIK ectasia. Their excitement was undeniable, as the approvals finally allowed them to join the ranks of their international colleagues (that would be us) who had been touting the benefits of CXL for at least a decade.

In the little more than 1 year since the US approval, many ophthalmic practices across the United States have now adopted CXL as a routine therapy for patients with progressive keratoconus and post-LASIK ectasia. This is obviously a big and welcome change for them, but it really has not had any implications for the way the we perform CXL in Europe. That being said, I do believe that the availability of a CXL treatment in the United States will eventually affect us tremendously, in the forms of collaboration and the sharing of best practices that are bound to surface between our US colleagues and those of us practicing in Europe.

This is why I was not surprised to see that, during the 2017 American Society of Cataract and Refractive Surgery (ASCRS) meeting in Los Angeles, there was a heavy focus on early diagnosis of and treatment protocols for keratoconus; on combination techniques such as topography-guided PRK plus CXL, LASIK plus CXL, intrastromal corneal ring segments plus CXL, and even phakic IOLs plus CXL; and on current practices of CXL outside the United States. This emphasis on CXL at the preeminent US ophthalmic anterior segment meeting demonstrates that our colleagues in the United States are determined to catch up to the rest of the world in mastering the intricacies of CXL and fulfilling its promise for their patients.

Our research team at LaserVision.gr Eye Institute in Athens, Greece, has participated in a plethora of CXL developments in the past 15 years, in part because we practice in an environment in which keratoconus is rampant. Since 2003, we have been using topography-guided PRK with CXL and have devised a technique that we call the Athens protocol. In addition to our efforts in research, we also advocate for performing keratoconus screening in patients.

At the very least, we believe that all young males should be screened, as one in 15 will show evidence of keratoconus (personal data). Today we screen appropriate patients with Placido disc, Cassini (iOptics), or Scheimpflug-derived topography. More important, we have found that the signs of keratoconus in this population of young males are also evident on anterior segment OCT devices, which demonstrate differences in the standard pattern of corneal thickness and altered epithelial patterns.

To my European colleagues practicing CXL: You should be proud of yourselves, as you have helped to propel the treatment of progressive keratoconus and post-LASIK ectasia forward. You should be proud of our accomplishments here in Europe and of all of the developments in CXL concepts and therapies to which we have contributed. Now, let us also look to our American colleagues to invigorate our past efforts and to reconfirm the criteria and standards we have established in the early diagnosis of keratoconus, the application of CXL, the recognition and early treatment of possible complications, and the long-term effects that CXL can have on the human cornea.

I am confident that *CRST Europe* and its US counterpart *CRST* will continue to act as forums for this continued dialogue, allowing us to learn from the collective experiences of all our colleagues, in both Europe and the United States. Continued innovation in CXL treatment will inevitably follow now that there is wider clinical practice of this new paradigm in anterior segment eye care. ■

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