

CCL: an effective form of visual rehabilitation

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UVA induced collagen crosslinking (CCL) followed by surface excimer ablation shows promise as a safe and effective technique for visual rehabilitation in eyes with keratoconus or postLASIK ectasia, said A. John Kanellopoulos, MD, speaking at the 2006 AAO meeting in Las Vegas.

Dr Kanellopoulos, associate professor of ophthalmology, New York University Medical College, and medical director, Laservision-gr. Institute, Athens, Greece, presented results from a case series of 27 eyes that were treated with UVA induced CCL. After a delay of at least 6 months, a topography-guided, limited PRK was performed using the WaveLight system in 14 of those eyes in order to normalize the cornea and improve vision.

At 6 months after the UVA CCL procedure, the keratoconus and ectasia appeared stabilized. In 22 eyes, there was a reduction of the steep K by at least 2 D, and 22 eyes also showed a decrease of at least 2.4 D in spherical equivalent (SE). Endothelial cell count increased paradoxically, and in patients with an untreated, fellow affected eye, there was worsening of the corneal pathology.

Among the eyes that underwent PRK after UVA CCL, mean UCVA improved from 20/400 to 20/60 and mean BCVA improved from 20/100 to 20/40. SE was reduced by 6.4 D, steep K increased from 54 D to 47 D, and the pachymetry changed from 450 to 397 microns. Two eyes developed mild haze.

"In my practice, I see no reason not to treat keratoconus eyes with UVA CCL, but I caution clinicians that this modality has not been investigated in an FDA trial and is not FDA approved," Dr Kanellopoulos said. "My experience also shows PRK after UVA CCL provides very gratifying visual rehabilitation".

"However, I currently perform PRK first followed by UVA CCL at the same visit because I believe that approach will offer a window for retreatment if necessary," he said. "Now, longer follow-up and additional studies are needed".