

Cross-linking decreased maximum keratometry value at 1 year

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Patients who did not receive treatment with corneal collagen cross-linking experienced continued progression of keratoconus from baseline to 1 year while patients who received the treatment had a decrease in mean maximum keratometry value of 1.6 D.

The prospective multicenter study included 205 eyes of patients with progressive keratoconus, of which 102 eyes were treated with corneal collagen cross-linking and 103 eyes were in the sham control group. Ninety eyes in the cross-linking group and 76 eyes in the control group remained in the study through the 1-year follow-up.

Eyes in the cross-linking group experienced a statistically significant decrease of 1.6 D in mean maximum keratometry value ($P < .001$). The control group experienced an increase in mean maximum keratometry value of 1 D from baseline to 1 year ($P < .001$).

The cross-linking group had a statistically significant improvement in corrected distance visual acuity, gaining 5.7 letters of visual acuity at 12 months. There was a statistically significant difference between the two groups of 3.5 letters at 1 year ($P < .01$).

The cross-linking group also gained approximately 4.4 letters of uncorrected distance visual acuity from baseline to 1 year compared with a 2.6 letter gain in the control group, but the difference was not statistically significant.

“In addition to decreasing disease progression, CXL also had beneficial visual and optical effects such as a decrease in corneal steepness and improvement in visual acuity and subjective visual function in some patients,” the researchers said. – *by Robert Linnehan*

Disclosures : Hersh reports he is a consultant for Avedro. Please see the study for all other authors' relevant financial disclosures.