Corneal collagen crosslinking in post-LASIK keratectasia.

Abstract:
To evaluate the effect of corneal collagen crosslinking with riboflavin and UV-A as a treatment option for postlaser in situ keratomileusis keratectasia. Crosslinking was carried out in 22 eyes of 15 patients with iatrogenic keratectasia. Follow-up, according to a standardised protocol (uncorrected visual acuity (UCVA), best-corrected visual acuity (BCVA), slit-lamp examination, pachymetry and topography), was performed preoperatively 1, 3, 6 and 12 months after crosslinking. The mean BCVA was 0.19 (SD ± 0.21) logMAR preoperatively, 0.25 (SD ± 0.17) 1 month, 0.20 (SD ± 0.20) 3 months, 0.18 (SD ± 0.21) 6 months and 0.15 (SD ± 0.14) 12 months postoperatively (statistically significant postop1-postop6, p=0.0335). The maximum k-readings were 44.12 (SD ± 3.97) preoperatively, 46.23 (SD ± 4.14) 1 month, 43.88 (SD ± 4.25) 3 months, 45.06 (SD ± 5.07) 6 months and 44.43 (SD ± 4.06) 12 months postoperatively (statistically significant preop-postop1, p=0.0281). Crosslinking in patients with iatrogenic keratectasia stabilised the UCVA and BCVA as well as the maximum k-readings in our cohort. It seems to be a safe and promising procedure to stabilise the refraction and the corneal topography, and thus to stop the progression of visual loss, thereby avoiding or delaying disease progression and keratoplasty.