Evaluation Of Corneal Sensation After Accelerated Corneal Collagen Crosslinking Treatment On Keratoconus

ERCUMENT BOZKURT, ENGIN BILGE OZGURHAN, UGUR CELIK, BURCU CELIK, OMER FARUK YILMAZ, AHMET DEMIROK.

Dr. Yilmaz is paid consultants to Avedro, Inc. No other author has a financial or proprietary interest in any material or method mentioned.

Purpose

The aim of this study was to report on evaluation corneal sensation after accelerated corneal collagen crosslinking on keratoconus patients.

Setting And Design

Beyoglu Eye Research and Training Hospital Cornea and refractive surgery subspecialty.

Prospective clinical trial.

Methods

The study was performed on 24 keratoconus eyes (24 participants: 15 M, 9 F, 16 to 28 years old) treated with accelerated collagen cross linking for corneal stabilization. Mean outcome measures were corneal sensation evaluation by Cochet-Bonnet esthesiometry.

Results

The mean age was 22.93 ±5.17 years (between 16 to 28 years old).

The preoperative mean keratometry, apex keratometry and pachymetry values were 47.19 ±2.82 D, 56.79 ±5.39 and 426.1 ±25.6 µm respectively.

The mean corneal sensations were 55.2 ±5.7 mm (range 45 to 60 mm).

Results

The corneal sensation was significantly decreased at postoperative 1st month and significantly improvement at postoperative 3rd and 6th month.

No difference was observed between the preoperative, postoperative 6th and 12th month evaluation.

Conclusions

Corneal sensation is decreasing at the postoperative period after accelerated corneal collagen cross linking treatment for keratoconus patients, however it improves significantly and reaches the preoperative values after the sixth month postoperatively.