134 THE EFFECTIVENESS OF CXL IN THE TREATMENT OF KERATOCONUS

Mahdieh Esmaeilnezhad, Alehe Seyyedrasooli. *Department of Medical-Surgical Nursing, Faculty of Nursing and Midwifery, Tabriz University of Medical Sciences, Tabriz, Iran.*

10.1136/bmjopen-2016-015415.134

Background and aims: Keratoconus is characterized by corneal ectasia and irregular astigmatism, which can lead to diminished vision and corneal scarring. Keratoconus is a condition that causes corneal ectasia and reduced vision in young adults. A proportion of these patients have progressive disease requiring corneal transplantation.

Methods: The databases searched included OVID MEDLINE, MEDLINE IN-Process and other Non-Indexed Citations such as EMBASE with keyword Keratoconus and Corneal cross-linking.

Results: Rocha KM and *et al.* (2014) funded that Epithelial thickness standard deviations were significantly lower 3 months after CXL, compared to ranges before CXL in both the vertical and horizontal meridians for keratoconus and ectasia (P=0.048). No significant differences were found between epithelial remodeling in keratoconus and corneal ectasia (P=0.98). No significant or consistent stromal changes were found for either group. Cınar and *et al.* (2013) funded that Flat keratometry, steep keratometry, mean keratometry and maximum keratometry were significantly reduced at the 6th month after CXL (p=0.025, p<0.001, p=0.004 and p=0.03, respectively). Thinnest corneal thickness (TCT) and endothelial cell density (ECD) were not changed significantly the 6th month after CXL (p=0.135 and p=0.082, respectively).Brooks NO and *et al.* (2012) funded that After CXL, patients noted subjective improvement in visual symptoms, specifically night driving, difficulty reading, diplopia, glare, halo, starbursts, and foreign-body sensation.

Conclusion: Significantly fewer corneal transplants were performed for treating keratoconus following the nationwide introduction of CXL. This reduction suggests that corneal cross-linking can significantly reduce the need for corneal transplantation. CXL represents a new treatment that uniquely allows the halt of progression of keratoconus, thus preventing visual loss and the need for surgical intervention.