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Evaluation of corneal rigidity and symmetry after UV corneal cross-linking for keratoconus

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UV corneal cross-linking (CXL) is a crucial treatment in ophthalmic care which has the potential to be an alternative procedure in reducing the progression of early keratoconus. This treatment needs further study to determine it is adequate to improve corneal rigidity and visual rehabilitation. Therefore, descriptors of corneal asymmetry parameters should emphasize and refer to the clinical assessment correctly to classify, monitor and evaluate the cross-linked cornea. There are many separate elements available in the software to the Oculus Penatcam for assessing corneal asymmetry. These elements have been found to be more valuable in monitoring the normalization of the cornea. According to previous studies, they have reported that the cornea becomes more optically regular after CXL using the same indices, where, patients were analyzed after 1 year, after the treatment. However, their data did not assess the posterior corneal elevation changes to show reliable improvement of corneal shape after cross-linking corneas. In this study, corneal asymmetry indices were measured by Oculus Pentacam before and after CXL for keratoconus patient in conjunction with the back elevation map. Assessing peripheral corneal asphericity (6-8 mm) might be more useful for increasing our comprehension of corneal regularity after treatment, though more long-term follow-ups are need after CXL to confirm these findings.

Biography

Hanan Khalid Mofty is Assistant Lecturer since 3 year at College of Applied and Medical Science in King Saud University and a Member in Association of Optometry in Saudi Arabia. She is pursuing her Master's program in Investigative Ophthalmology and Vision Science at the School of Health Sciences in the University of Manchester.

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