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TAILORED STROMAL EXPANSION FOR CROSSLINKING THE ULTRA THIN CORNEA IN CORNEAL ECTASIA

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Purpose: To evaluate epi-off corneal collagen crosslinking (CXL) using refractive stromal lenticule of another patient undergoing small incision femtosecond lenticule extraction in patients having keratectasia with thinnest pachymetry value of less than 400 microns and not treatable using standard de-epithelialization techniques

Methods: Sixteen eyes of fifteen patients affected by progressive keratectasias (11 keratoconus and 5 post lasik ectasia) with thinnest pachymetry values ranging from 360 μm to 397 μm underwent CXL using a modified technique using refractive stromal lenticule from patients undergoing small incision femtosecond lenticule extraction for moderate myopia in Visumax and thickness ranging from 110 to 120 μm . Epithelium was debrided and stromal lenticule 6.0 mm in diameter, harvested simultaneously, was placed so that the centre corresponded to the apex of the cone. Riboflavin 0.1 % drops were put and CXL carried out in the standard manner. The patients underwent complete ophthalmological examination, including endothelial cell density measurements and computerized videokeratography, before CXL and at one, 6, and 12 and 24 months

Results: Epithelial healing was complete in all patients within 5 days of use of a soft bandage contact lens. No side effects or damage to the limbal region was observed during the follow-up period. All patients showed stability of K readings after 6 months, 1 and 2 years. Demarcation line was observed in all the cases.

Conclusion: The new technique of using refractive stromal lenticule for CXL increases the corneal thickness in most physiological way. In our series, it was found to be a safe, effective and viable for ultrathin corneas.

Biography

Aditi S Nigam hails from Mumbai, India and now settled in New Delhi. She has gained her MBBS degree from the prestigious Padma shree D Y medical college, Pune. Afterwards, she has completed her Post Graduation in Ophthalmology from esteemed institute D Y Patil Kohlapur where she did her thesis on Comparative Study of Intraoperative Complications in Pseudoexfoliation Syndrome with Normal Patients in Cataract Surgery which got published in *international journal of advanced research (IJAR)* volume 5 issue 2 February 2017. After completing her formal education, she wanted a global exposure and thus started attending various conferences and seminars and did short courses in Ophthalmology sub branches from University of Michigan and London school of Tropical Medicine and Hygiene. She is currently working at Centre for Sight, New Delhi as a Senior Resident and recently attended the training session held at Mumbai in LASIK under Dr Rupal Shah, one of the finest refractive surgeon in India. She aims at becoming one of the finest Ophthalmologist, the world has to offer and therefore in her free time she loves to read all about who's who of ophthalmological world. She also loves to open a charitable foundation one day and truly contribute in the vision 2020. She loves sketching and cant travel without her first optical instrument she calls camera.

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