



Title: Interstitial Keratitis in a Patient With Past History of Corneal Collagen Cross-Linking for Post-LASIK Keratectasia and Scleral Lens Wear

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Abstract:

1. **Purpose:** To report a case of late-onset unilateral interstitial keratitis in a patient wearing scleral lenses for post-LASIK keratectasia previously treated with corneal collagen cross-linking (CXL).
2. **Case:** A 48-year-old female scleral lens wearer presented with a blurred vision in the left eye, 13 years after CXL. Anterior findings revealed interstitial keratitis - multiple midstromal fine refractile deposits in the nasal and temporal paracentral cornea without epithelial defect or anterior chamber reaction. Two corneal biopsies were unremarkable. Systemic investigations were negative, and there was no response to topical steroids. The deposits partially regressed with cessation of scleral lens wear and recurred upon resumption.
3. The patient underwent penetrating keratoplasty. Histopathology of the corneal button following keratoplasty demonstrated interstitial keratitis with lymphocytic infiltrates, foamy macrophages, and activated keratocytes, without crystal deposition. The donor cornea remained clear at 5 months' follow-up.
4. This case highlights a rare presentation of interstitial keratitis without an identifiable infectious cause. It remains unclear whether prior LASIK with CXL, scleral lens wear, or the combination of these factors contributed to disease development.