

Bilateral Infectious Keratitis following Corneal Collagen Cross-linking

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Purpose:

To report a case of bilateral *Staphylococcus aureus* keratitis after corneal collagen cross-linking, in a patient with keratoconus.

Case Report:

A 22-year-old female patient with bilateral evolutive keratoconus underwent bilateral UVA-riboflavin corneal cross-linking and presented with painful red eyes three days later. At presentation, best-corrected visual acuity was limited to the light perception. Slit-lamp examination of the RE revealed severe keratitis with multiple scattered miliary infiltrates, diffuse corneal edema, and an epithelial defect in both eyes. Ultrasound B-scan showed no vitreous reaction. The patient was admitted to our department and received broad-spectrum fortified antibiotics (vancomycin and ceftazidime). Cultures from corneal scraping samples grew positive for *Staphylococcus aureus*. Topical corticosteroids were given when corneal lesions started to improve. At one-year follow-up, best-corrected visual acuity was 20/200 in the right eye and 20/32 in the left eye.

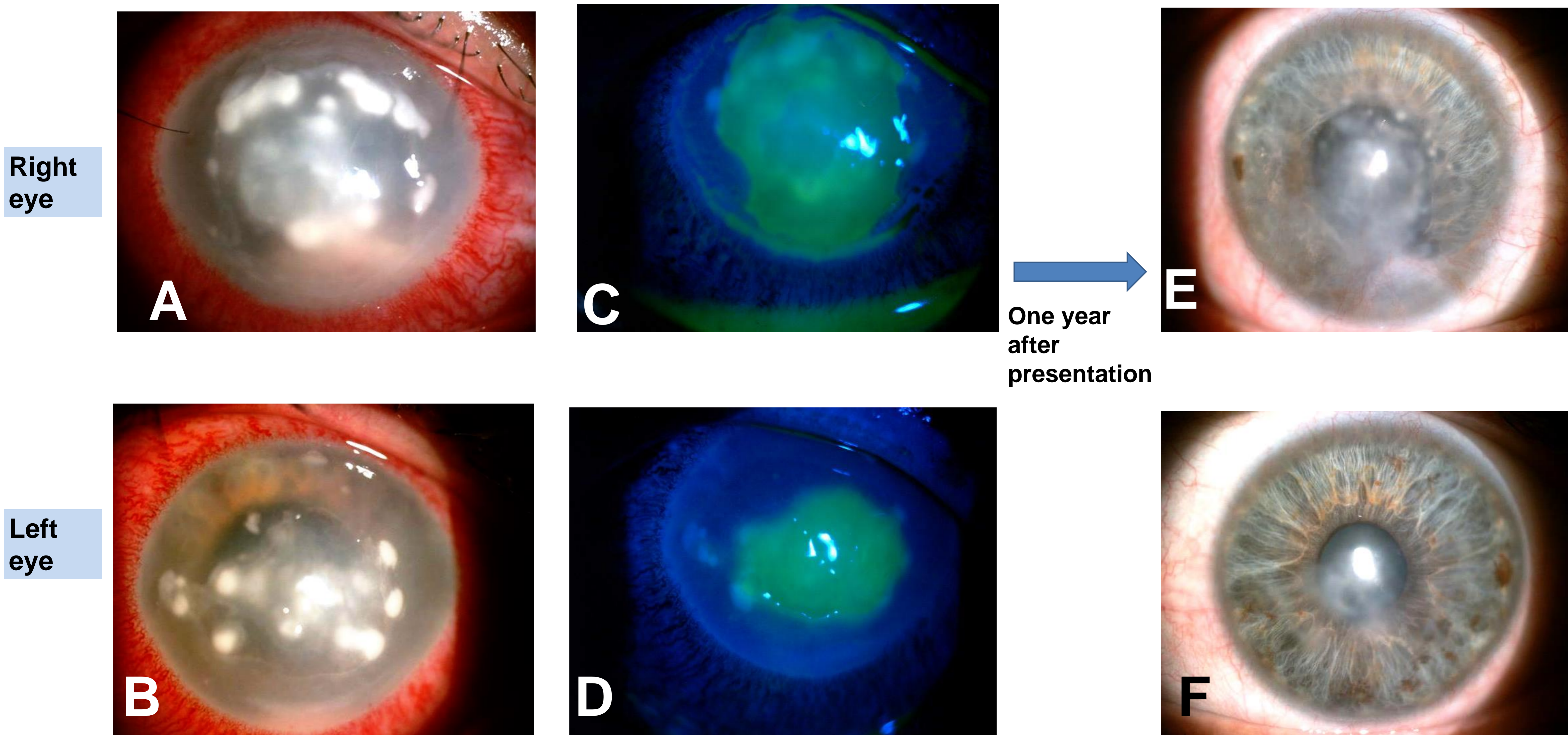


Figure 1: Slit-lamp photography shows multiple scattered white stromal infiltrates, with diffuse corneal edema OU, hypopyon in the right eye (A, B) and a large epithelial defect OU (C, D). At one-year follow-up, slit-lamp photography shows residual corneal opacities with corneal neovascularization, mostly in the right eye (E, F).

Conclusions:

Collagen cross-linking is considered a safe procedure aiming at halting keratoconus progression. However, sight-threatening uni ou bilateral infectious keratitis may develop.

The contamination may result from postoperative incorrect patient behavior, delay in epithelial healing associated with atopic dermatitis or diabetes, or the use of bandage contact lenses.

Reference :

Abbouda A, Abicca I, Alió JL. Infectious Keratitis Following Corneal Crosslinking: A Systematic Review of Reported Cases: Management, Visual Outcome, and Treatment Proposed. *Semin Ophthalmol*. 2016;31(5):485-91