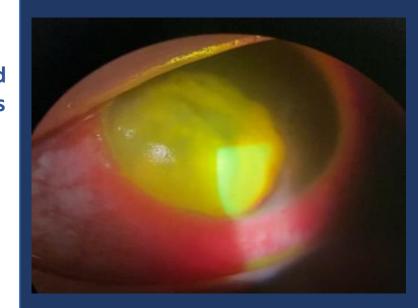
## A Rare Complication of Cross-Linking for the Management of Keratoconus

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- 27-year-old female with past medical history of asthma and ocular history of keratoconus (KCN) OS>OD, atopic conjunctivitis and blepharitis presented to the ED with blurry vision, pain, photophobia and purulent drainage OS.
- 2 days prior she underwent collagen cross-linking (CXL) for KCN OS (FDA approved protocol: epithelium-off, Photrexa eye drops 0.146% Avedro UVA light for 30 mins (365 nm; 3 mW/cm²)). Pre op VA was 20/50, Kmax was 55.1 D and the thinnest point was 443 um. Her post op regimen included: Ofloxacin 0.5% qid, Prednisolone acetate 1% qid, Bromfenac 0.07% qdaily.
- She was recovering well on POD1 and developed symptoms on POD 2. In the ED, her VA OS was HM and on exam there was corneal melting with a 5.8 mm (horizontal) x 6.2 mm (vertical) ovoid descemetocele inferonasally. The anterior chamber was flat, and the iris was protruding towards the cornea. There was concern for a self-sealing corneal perforation.







## Algorithm for acute management of corneal melt

Non perforated



Treat medically based on underlying etiology

Imminent perforation (descemetocele)



Formed anterior chamber & seidel negative



+/- corneal gluing
+treat medically
based on
underlying etiology

Perforation





Size ≤1 mm



Size >1 mm



Corneal gluing

- + drops
- antibiotics
- aqueous suppressants
- mydriatic
- +/- steroid

Surgical repair:

AMT, patch graft, PKP

- + drops
- antibiotics
- aqueous suppressants
- atropine
- +/- steroid



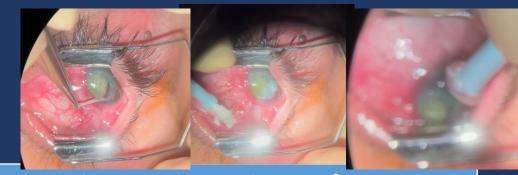


Patient was taken to the OR for triple layered sutured AMT & corneal culturing



Bacterial and fungal culture: No growth

Systemic workup only significant for atopic disease



POD7: Patient's son hit her in the eye → AMT loose and + seidel → glue + BCL

**POD10:** Flat AC with − seidel, micro leak? → s/p PKP

POM5: Infectious corneal ulcer

**Currently**: Failed graft

## Conclusion

Importance of careful pre-op evaluation and post-op monitoring

More studies are needed to better understand this rare complication of CXL

