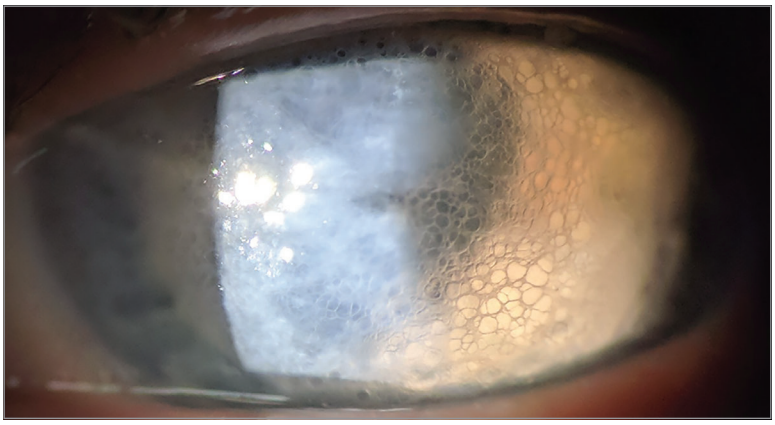
Ophthalmic Images

Laser in Situ Keratomileusis Flap Free-Floating on Interface Edema in Acute Corneal Hydrops

Evan J. Warner, MD

A Slitlamp photography



B Anterior segment OCT

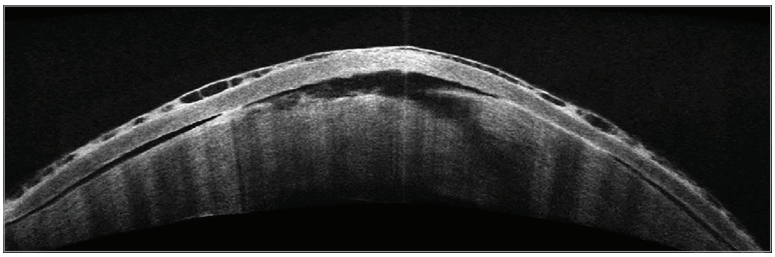


Figure. A, Slitlamp photograph showing severe stromal edema and a honeycomb pattern of diffuse epithelial bullae. B, Anterior segment optical coherence tomography (OCT) demonstrates stromal edema, a lamella of fluid in the laser in situ keratomileusis flap interface, and intact flap with diffuse epithelial fluid cysts. (Photograph courtesy of Dr Warner).

A 62-year-old patient with a remote history of laser in situ keratomileusis (LASIK) awoke with cloudy vision, tearing, photophobia, and sharp pain in the left eye. She reported requiring a rigid gas permeable contact for 11 years due to postrefractive ectasia. Slitlamp examination was consistent with acute hydrops (**Figure**, A). Central pachymetry measured over 1400 µm (fellow eye, 588 µm). Optical coherence tomography identified fluid channels throughout the stroma and an unstable LASIK flap resting on fluid in the flap interface (Figure, B). She was treated conservatively with topical moxifloxacin, prednisolone, and timolol, and the edema resolved by 11 weeks, leaving a dense scar. Six weeks later, she developed redness, pain, and photophobia and was found to have a small, branching posterior stromal infiltrate concerning for fungal keratitis. Penetrating keratoplasty was performed, with pathology identifying *Aspergillus* at 80% stromal depth. The postoperative course was uncomplicated, and final visual acuity was correctable to 20/15. It was suspected that use of topical corticosteroid in conjunction with channels of edema communicating with tenuous surface bullae led to a deep fungal keratitis.

CME at jamacmelookup.com

ARTICLE INFORMATION

Author Affiliation: Department of Ophthalmology and Visual Sciences, University of Wisconsin-Madison School of Medicine and Public Health, Madison.

Corresponding Author: Evan J. Warner, MD, Department of Ophthalmology and Visual Sciences, University of Wisconsin-Madison School of Medicine and Public Health, 2870 University Ave, Ste 206, Madison, WI 53705 (ejwarner@wisc.edu).

Conflict of Interest Disclosures: Dr Warner reported receiving grants from Research to Prevent Blindness Inc. No other disclosures were reported.

Funding/Support: This work was supported in part by an unrestricted grant from Research to Prevent Blindness Inc to the University of Wisconsin-Madison Department of Ophthalmology and Visual Sciences.

Role of the Funder/Sponsor: The funder had no role the decision to submit this case report for publication.

Additional Contributions: We thank the patient for granting permission to publish this information.