

Corneal Hydrops

Category(ies): Cornea, External Disease

Contributor: [Jesse Vislisel, MD](#)

Photographer: Jody Troyer



Corneal hydrops is the acute onset of corneal edema due to a break in Descemet membrane. This condition may be seen in individuals with advanced keratoconus or other forms of corneal ectasia. Recovery may take weeks to months with medical therapy, but may be accelerated by the placement of air or gas into the anterior chamber to slow the influx of aqueous into the cornea. Scarring, and sometimes corneal flattening, will occur after resolution of the episode.

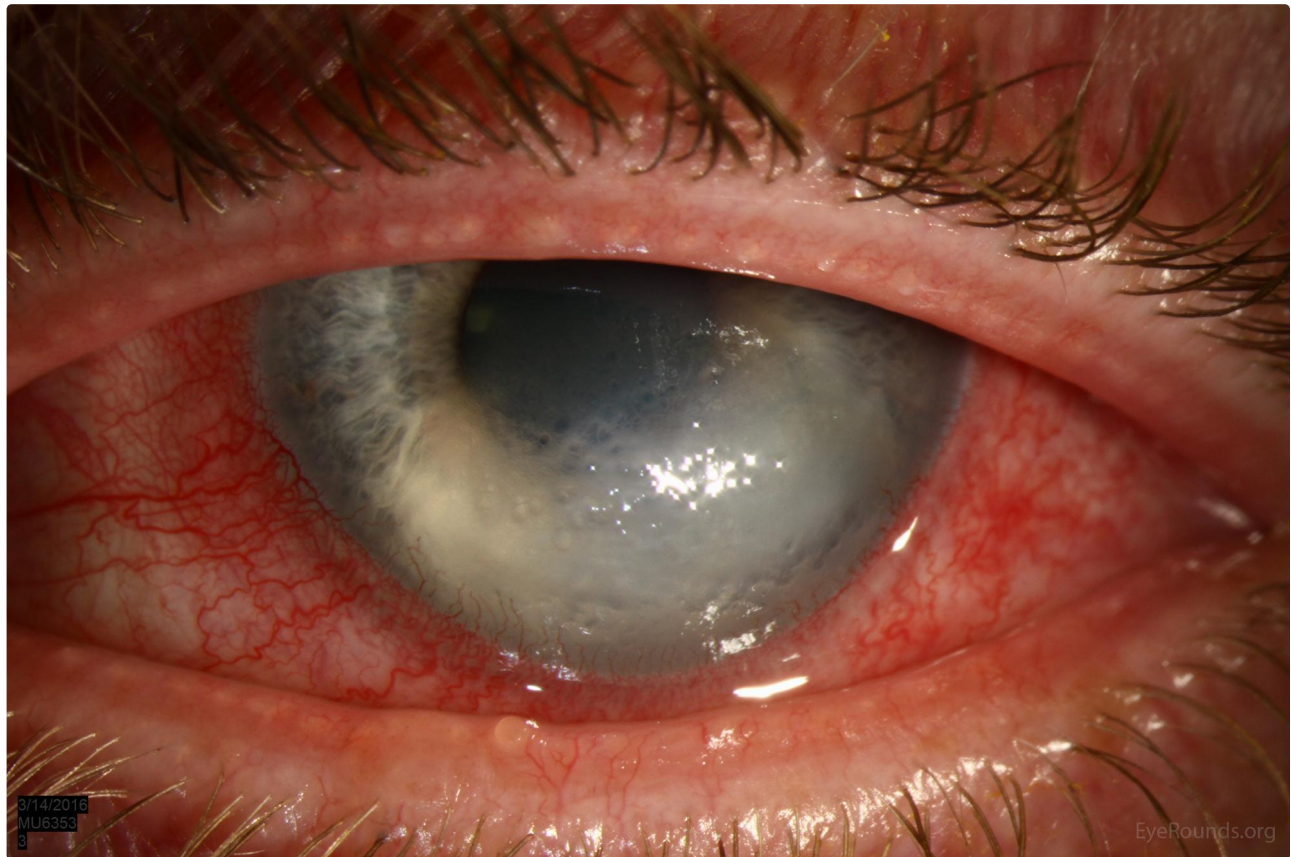


Fig 1a: Acute corneal hydrops with severe inferior corneal stromal edema and overlying microcystic edema and bullae in the setting of advanced keratoconus. These photographs were taken 1 week after onset of the episode.

 [Enlarge](#)

 [Download](#)

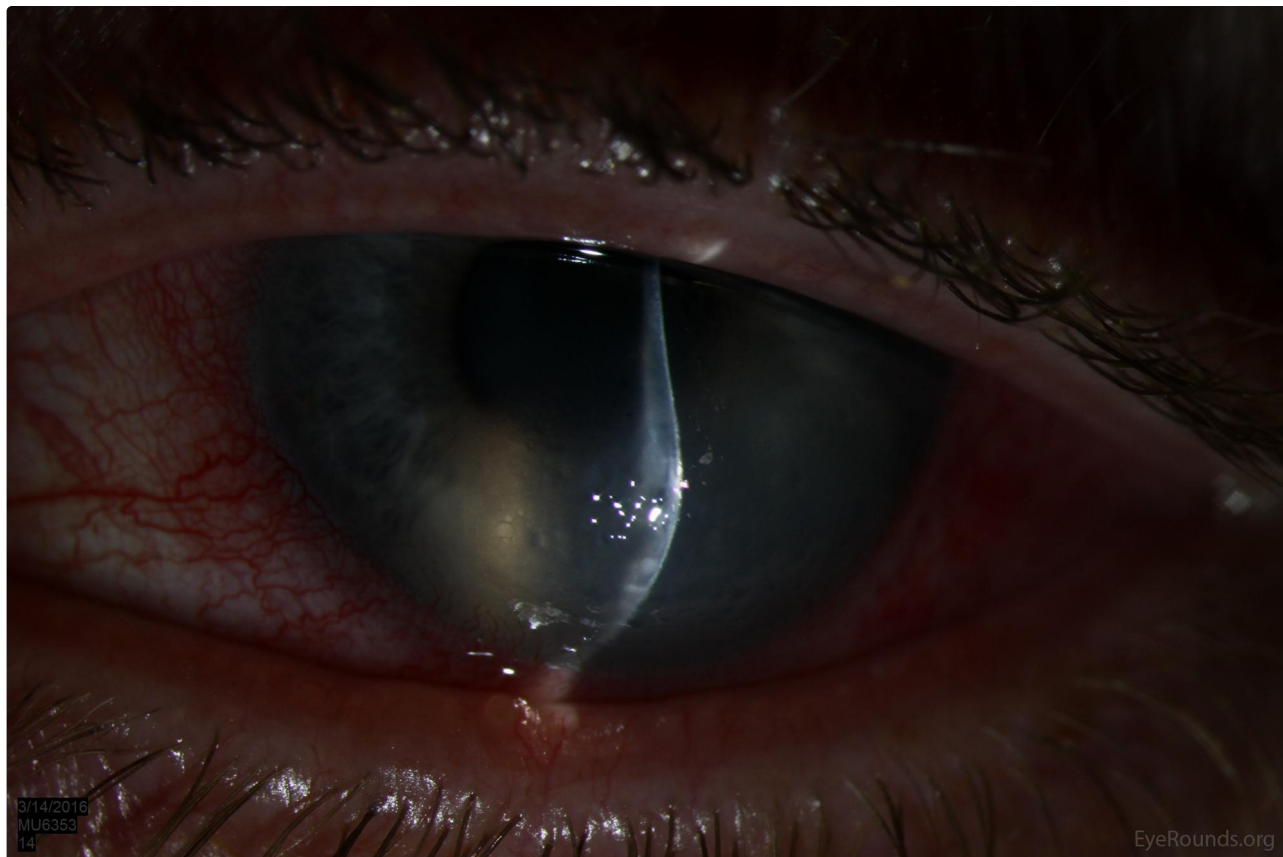


Fig 1b: Slit Lamp

[Enlarge](#)

[Download](#)

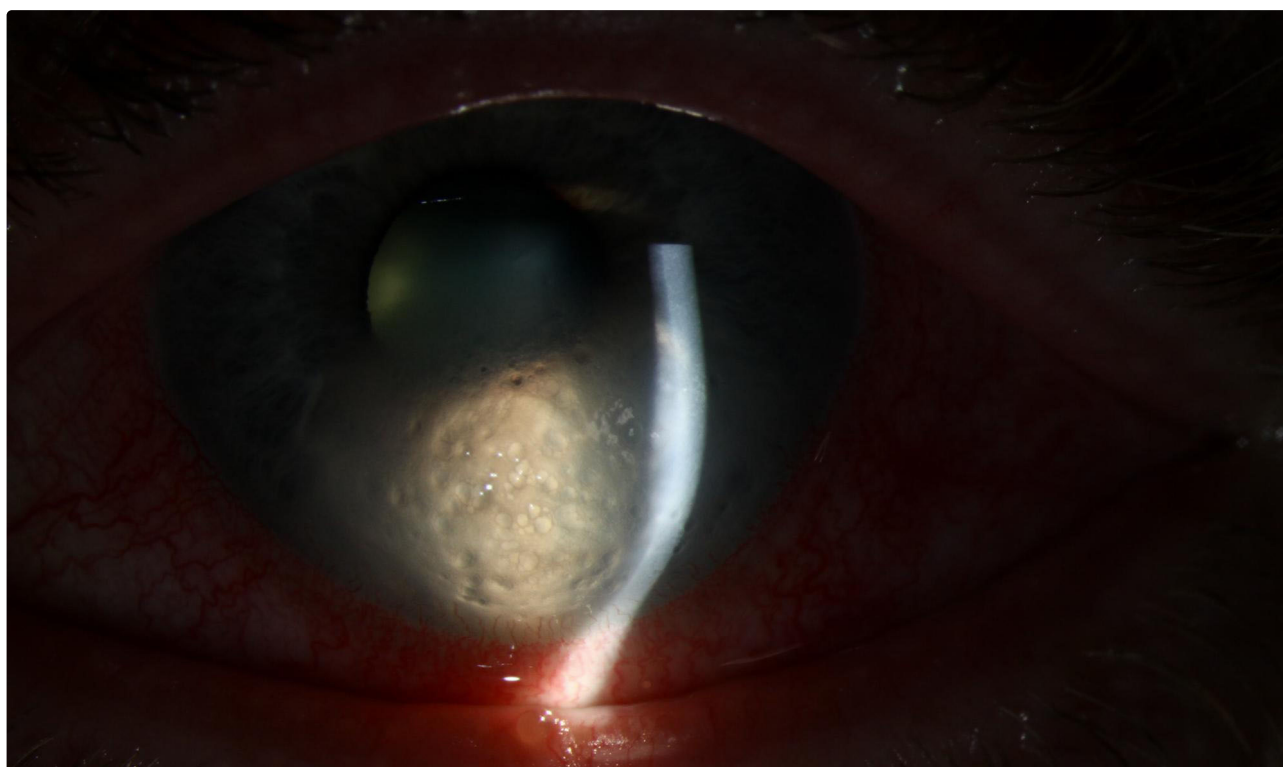




Fig 1c: Wide Slit Lamp

[Enlarge](#)

[Download](#)



Fig 2: Anterior segment OCT of the patient in Figure 1 demonstrating the severe stromal edema in the area of involvement with underlying detachment of Descemet membrane in the area of rupture. Epithelial bullae can be seen overlying the area of stromal edema.

[Enlarge](#)

[Download](#)

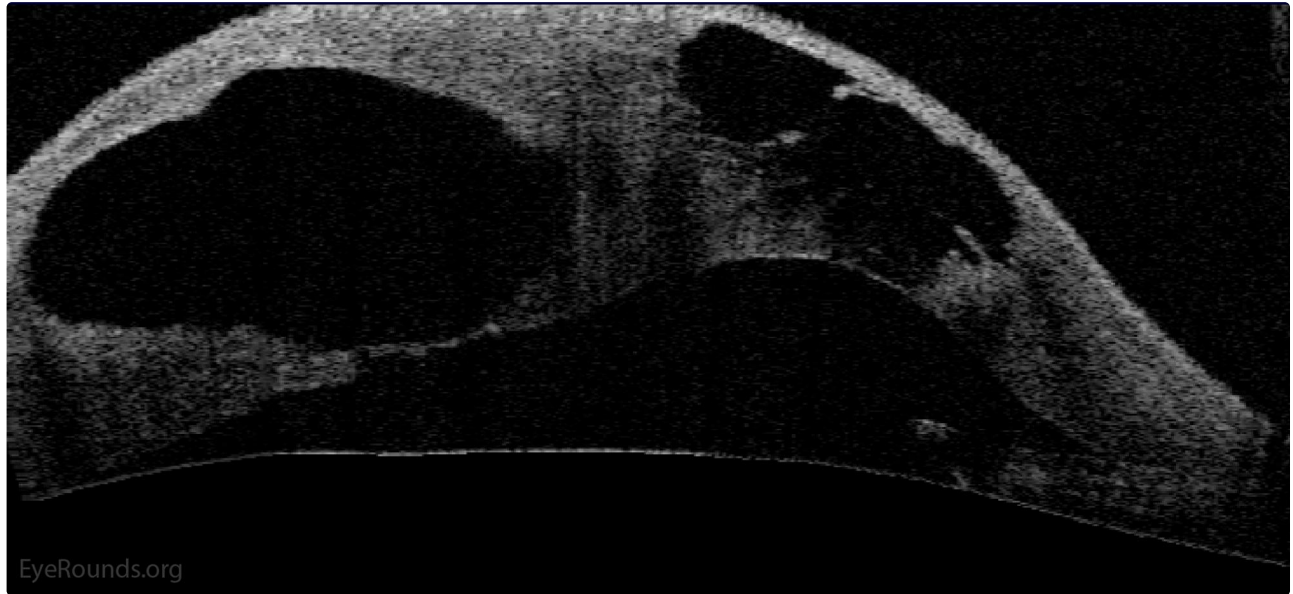


Fig 3a: Anterior segment OCT of a patient with keratoconus and severe corneal hydrops. These images demonstrate the large, cystic accumulations of intrastromal fluid that were present. Subsequent penetrating keratoplasty was required.

[Enlarge](#)

[Download](#)

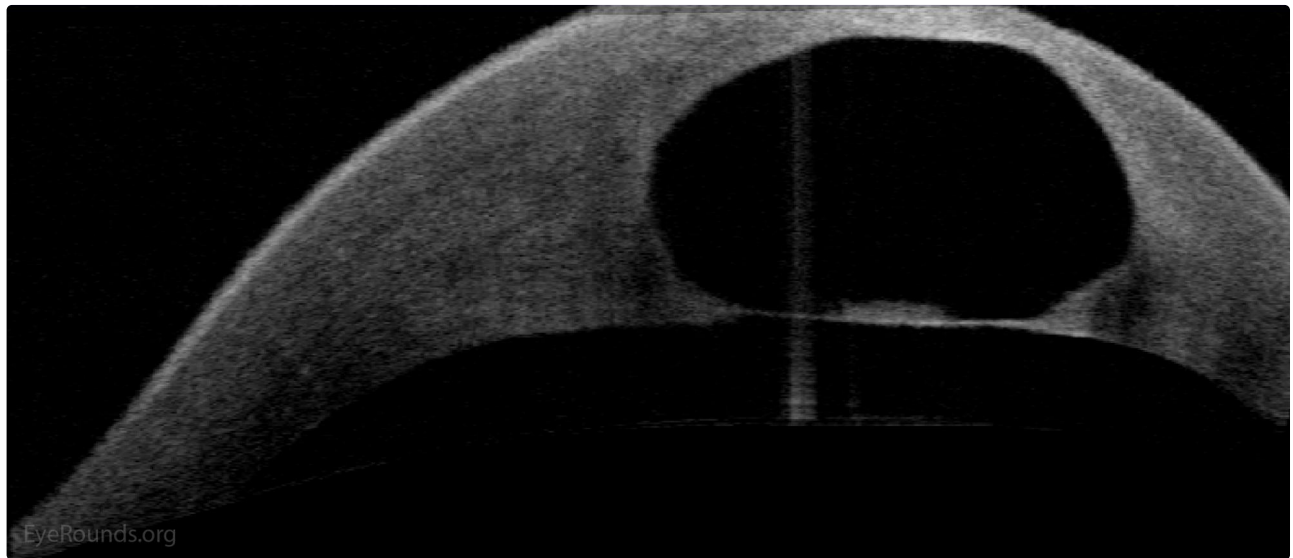


Fig 3b: Anterior segment OCT of a patient with keratoconus and severe corneal hydrops. These images demonstrate the large, cystic accumulations of intrastromal fluid that were present. Subsequent penetrating keratoplasty was required.

[Enlarge](#)

[Download](#)

Image Permissions:



Ophthalmic Atlas Images by [EyeRounds.org](#), [The University of Iowa](#) are licensed under a [Creative Commons Attribution-NonCommercial-NoDerivs 3.0 Unported License](#).

Address

University of Iowa
Roy J. and Lucille A. Carver College
of Medicine
Department of Ophthalmology and
Visual Sciences
200 Hawkins Drive
Iowa City, IA 52242

[Support Us](#)

Legal

Copyright © 2019 The University of
Iowa. All Rights Reserved
[Report an issue with this page](#)
[Web Privacy Policy](#) |
[Nondiscrimination Statement](#)

Related Links

[Cataract Surgery for Greenhorns](#)
[EyeTransillumination](#)
[Gonioscopy.org](#)
[Iowa Glaucoma Curriculum](#)
[Iowa Wet Lab](#)
[Patient Information](#)
[Stone Rounds](#)
[The Best Hits Bookshelf](#)

EyeRounds Social Media

Follow



Receive notification of new cases,
[sign up here](#)
[Contact Us](#)
[Submit a Suggestion](#)