

OcuLetter



Trauma's Fingerprint on the Eye!

Berlin's edema, or commotio retinae, occurs after blunt ocular trauma. Shock waves disrupt photoreceptor outer segments and the retinal pigment epithelium, causing transient retinal whitening, most evident at the posterior pole. The fovea often appears as a cherry-red spot. Symptoms include blurred vision and field defects. While usually self-limiting, severe cases risk permanent vision loss.

MYTH

"All color-blind people see only black and white"

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FACT

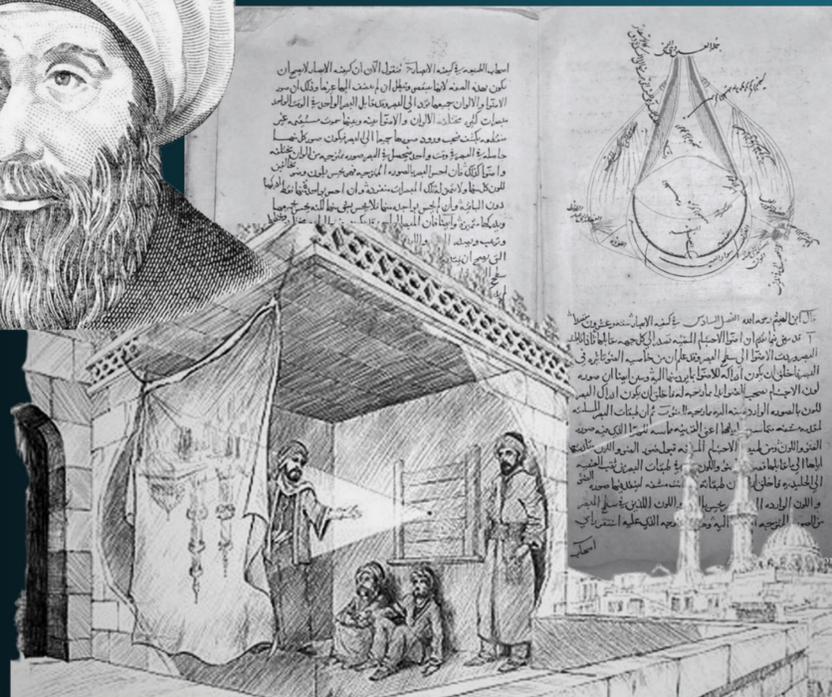
Most have difficulty distinguishing certain colors like red-green or blue-yellow, but very few see only in shades of gray which is a rare condition called achromatopsia.



Windows into History

Ibn Al-Haytham The Father of Modern Optics

Before the 11th century, people thought eyes emitted light to form images. Around 1020 AD, Ibn al-Haitham showed that eyes receive light instead. He also built the first pinhole camera (Camera Obscura), discovering that a smaller hole gives a sharper picture.



DID YOU KNOW?

The retina itself has no pain receptors, so retinal conditions like detachment are usually painless. Visual changes such as sudden loss of vision, flashes, or floaters are often the first warning signs.

CASE

of the month

Recurrent Red, Itchy, Light-Sensitive Eye in a Young Patient

A 12-year-old boy presented with recurrent seasonal episodes of intense itching, redness, tearing, and photophobia in both eyes, worse in spring and summer. He had a history of atopy eczema. On exam, giant papillae were noted on the upper tarsal conjunctiva with limbal thickening. He was diagnosed with vernal keratoconjunctivitis (VKC).



Etiology: VKC results from an IgE and Th2-mediated hypersensitivity reaction triggered by environmental allergens, often with a strong **seasonal pattern**. It is more common in boys and tends to occur in warm, dry climates

Clinical Presentation: Intense itching, redness, tearing, stringy mucoid discharge, and marked photophobia. Clinical signs include giant "**cobblestone**" papillae on the upper tarsal conjunctiva, Horner-Trantas dots at the limbus, punctate keratitis, and, in advanced cases, shield ulcers.

Management Overview:

Acute phase: Topical dual-acting antihistamines and mast cell stabilizers, along with lubricating drops for symptomatic relief.

Refractory or severe disease: Short courses of topical corticosteroids. Topical immunomodulators are considered to control inflammation and reduce dependence on steroids.

Complications: Corneal scarring or shield ulcers with subsequent vision loss. Long-term steroid use carries risks of steroid-induced glaucoma and cataract.

A landmark Study

The Optic Neuritis Treatment Trial (ONTT)

Published in 1992, ONTT was a multi-center, randomized clinical trial that enrolled 457 patients with acute demyelinating optic neuritis from 15 different centers. It answered three major questions: (1) Does treatment with either oral prednisone or intravenous methylprednisolone improve visual outcome in acute optic neuritis? (2) Does either treatment speed the recovery of vision? (3) What are the complications of treatment in relation to its efficacy?

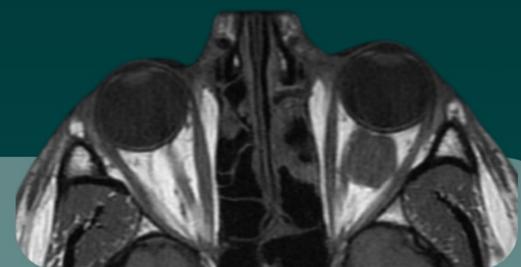
Key Findings: (A) IV methylprednisolone accelerated visual recovery in the first two weeks, but differences disappeared by six months. (B) Oral prednisone alone was ineffective and linked to more recurrent optic neuritis. (C) Brain MRI lesions during an episode strongly predicted future development of multiple sclerosis.

Impact: Standardized treatment protocol that is still used today and highlighted optic neuritis as a predictor of multiple sclerosis.

Quiz

A 55-year-old man presents with progressive, painless proptosis of the right eye over several months. On exam, there is axial proptosis, limited eye movement, and decreased vision. CT orbit shows a homogeneous, well-circumscribed, intraconal mass.

What is the most likely diagnosis?



- A** Orbital cellulitis
- B** Optic nerve glioma
- C** Thyroid eye disease
- D** Cavernous hemangioma

Our latest activities



Slit Lamp Workshop

Ophthalmology department

Starting with a presentation on its principles and uses, followed by small-group practical sessions under supervision.



Online Lecture

Covered refining research questions, selecting the appropriate study design, and identifying suitable journals for publication.