

Hyphema

WHAT IS A HYPHEMA?

A hyphema is an accumulation of blood in the anterior chamber of the eye. This is the space between the cornea (front clear surface of the eye) and iris (colored part of the eye).

WHAT CAUSES A HYPHEMA?

A hyphema is most often caused by blunt trauma to the eye. In children and adolescents the most common cause is from sports or recreational activities. It can also occur as a result of surgery inside the eye or an abnormality of blood vessels inside the eye. Rarely, a hyphema occurs as a consequence of medical problems that can affect the eye such as juvenile xanthogranuloma and cancer.



Fig. 1: A hyphema is an accumulation of blood in the space between the cornea and the iris.

WHAT ARE THE SYMPTOMS OF A HYPHEMA?

Typical symptoms include eye pain, blurring or loss of vision, and photophobia or light sensitivity. Sometimes the accumulation of blood is visible to the naked eye.

HOW IS A HYPHEMA DIAGNOSED?

A thorough eye examination must be performed by your ophthalmologist. This will include checking of vision and eye pressure (tonometry), a slit lamp examination, and a dilated examination to examine the fundus of the eye to



make sure there is no additional injury such as retinal detachment, cataract, or blood elsewhere in the eye.

HOW IS A HYPHEMA TREATED?

Treatment of a hyphema involves encouraging the blood to clear, treating any elevation in intraocular pressure, and trying to prevent additional bleeding. A period (often of several days) of limited activity or bed rest is recommended. The head is kept in an elevated position even during sleep, and the eye is protected with a shield. Steroid eye drops are often prescribed to limit inflammation and dilating drops can help alleviate pain. Patients with hyphemas should not take any products containing aspirin or ibuprofen. The blood from a hyphema can clog the drainage canals of the eye causing a rise in intraocular pressure. Prolonged elevated intraocular pressure can lead to glaucoma and irreversible optic nerve damage. This can be more common in those patients with sickle cell anemia.

IS SURGERY EVER INDICATED FOR A HYPHEMA?

If the blood does not clear after a suitable period of time and conservative medical treatment, or if there is an uncontrollable rise in intraocular pressure, surgery may be performed to remove the blood.

ARE THERE ANY LONG-TERM EFFECTS FROM A HYPHEMA?

Although recovery of vision is common, if there is a rebleed or concomitant damage to other parts of the eye the visual prognosis is guarded. Sometimes the drainage canals of the eye are irreversibly damaged due to the blunt trauma associated with a hyphema. This can lead to a lifelong risk of glaucoma. An ophthalmologist can examine the drainage canals by using a special lens to perform a procedure called gonioscopy to determine if this damage has occurred, and if the intraocular pressure has increased as a result by an instrument called a tonometer. They can also determine what type of long term follow up may be necessary. The importance of protective eyewear to prevent eye injury can be promoted by parents, schools and communities.

Ref: Epidemiology of Hyphema-Related Emergency Department Visits in The United States Between 2006 and 2015. Author: Zafar, Sidra et al, Journal: Ophthalmic epidemiology ISSN: 0928-6586 Date: 06/2019 Volume: 26 Issue: 3 Page: 208-215 PMID:30794001 DOI: 10.1080/09286586.2019.1579917



Epidemiology and outcomes of hyphema: a single tertiary centre experience of 180 cases [Mustafa Iftikhar](#) et al, 29 October 2020, Acta Ophthalmologica
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