

Endophthalmitis

WHAT IS ENDOPHTHALMITIS?

Endophthalmitis is an infection inside the eyeball (globe). The inside of the eye is usually sealed and sterile and typically not exposed to bacteria, viruses or fungi. Because the tissues within the eyeball are very delicate, endophthalmitis is very serious and can lead to blindness or even loss of the eye itself. In contrast, an infection on the outside surface of the eye is called conjunctivitis or keratitis. These type of external infectious on the outside of the eye are much more common and not as serious as endophthalmitis.

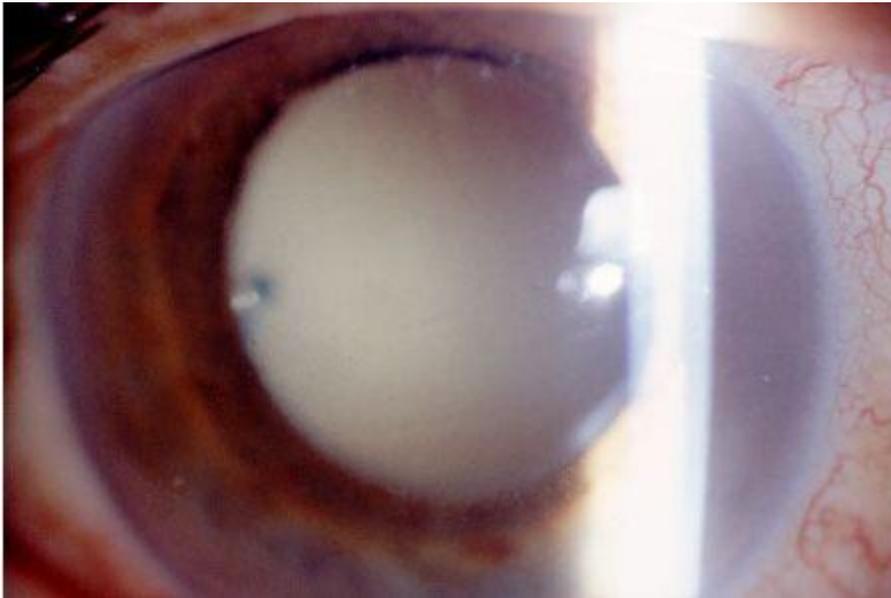


Fig. 1: Endophthalmitis

HOW DOES ENDOPHTHALMITIS OCCUR?

There are two ways to contract endophthalmitis. Exogenous endophthalmitis is the most common form and occurs after penetration of the eyeball from trauma, surgery or spread of an infection into the eye. It is among the most serious complications of eye surgery. In contrast, endogenous endophthalmitis occurs when infectious organisms invade the inside of the eye from the bloodstream. This occurs most commonly in very sick individuals with certain types of infections.

WHAT TYPES OF EYE SURGERY RESULT IN ENDOPHTHALMITIS?

Despite careful sterile technique, any eye surgery may lead to endophthalmitis. Endophthalmitis is most common (1 in 1000) following intraocular surgery such as [cataract](#), cornea transplantation and glaucoma filtering surgery. Other types of surgery, such as eye muscle surgery, can also lead to endophthalmitis. Fortunately, endophthalmitis following eye muscle surgery is very rare (about 1 in 30,000 cases).

WHAT ARE THE SYMPTOMS OF ENDOPHTHALMITIS?

The symptoms of endophthalmitis include progressive deterioration of vision, light sensitivity, pain and swelling around the eye [See figures 1 and 2]. If there is loss of vision after eye surgery, especially accompanied by pain, a physician should be notified immediately. Endophthalmitis typically occurs between 2 and 5 days after surgery but some mild forms may occur weeks after surgery. Patients that have undergone a glaucoma filtering surgery are at life-long increased risk for developing endophthalmitis.

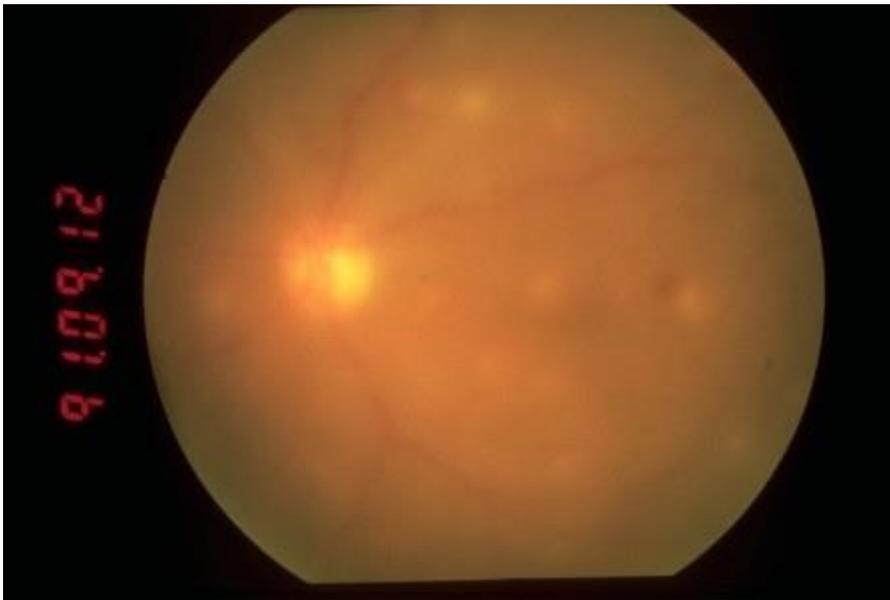


Fig. 2: Endophthalmitis

HOW IS ENDOPHTHALMITIS DIAGNOSED AND TREATED?

Endophthalmitis is diagnosed by the clinical exam. In addition to a regular eye exam, evaluation may include ultrasound to better visualize the inner structures of the eye such as the vitreous and retina and a sample of the fluid inside the



eye to identify organisms causing the infection. Depending on the severity of the infection, treatment includes administering antibiotic, anti-fungal, and/or anti-viral medications either with drops, by mouth, by an IV, or via direct injection into the eye. Steroids are sometimes used as well. If the infection is severe, a surgery called a vitrectomy may be performed to remove infectious material from the inside of the eye.

WHAT IS THE PROGNOSIS OF ENDOPHTHALMITIS?

Prognosis of endophthalmitis varies depending upon the cause of the infection, the severity, and the amount of damage done to the eye by inflammation and scarring. Mild cases of endophthalmitis can have excellent visual outcomes. Severe cases may result in loss of vision or loss of the entire eye.

Updated 08/2021