



جامعة المستقبل
قسم تقنيات البصريات

L4

مشاكل العين بالامراض الباطنية و العصبية

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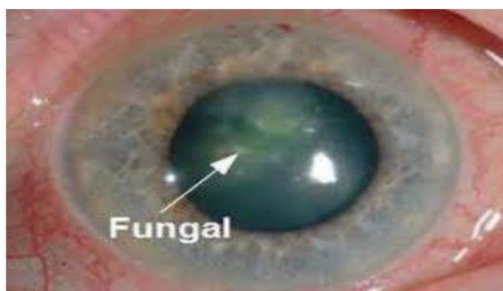
Infection

Eye Manifestations of Systemic Infection

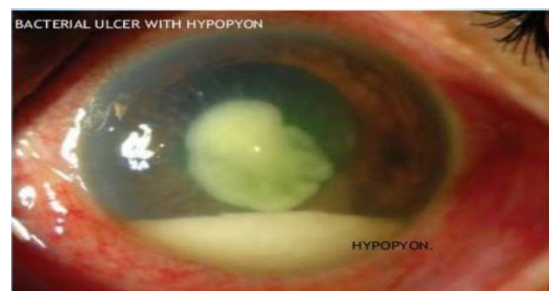
Infection is a harm caused by microorganisms, which are often referred to a 'germs' (microbes).

➤ micro-organisms cause infection:

- Bacterial (fig.2), fungal (fig.1), viral (fig.3) and parasitic pathogens all cause systemic infection and can spread to the eye.



(fig.1) fungal keratitis



(fig.2) Bacterial keratitis



(fig.3) herpes zoster



herpes viruses

➤ Eye Manifestations of Systemic Infection

Eye symptoms might indicate the outcome of an underlying infection ,
Such as development of retinal ischemia in severe malaria, this is
associated with a poor prognosis

➤ Eye Manifestations of Systemic Infection

Ocular presentation can be associated with a number of chronic
infections including:

- Tuberculosis
- Syphilis
- Toxoplasmosis
- Cat scratch disease
- Leprosy
- Chlamydial infection
- AIDS

Tuberculosis :(TB)

Tuberculosis is a chronic infection caused by bacteria.

Tuberculosis is primarily involves the lung .Tuberculosis may affect
any part of the eye (intraocular, superficial, or surrounding the eye),
by hematogenous spread from a distant site or direct invasion by
contiguous spread from adjacent structures, like the sinus or cranial
cavity.

Ocular Tuberculosis: (TB)

- Posterior uveitis is the most common presentation of intraocular (TB).
- The conjunctiva, cornea, and sclera are sites of primary ocular involvement.
- Drug related ocular toxicity.

- Diagnosis :

Systemic findings consistent with (TB) infection
Positive interferon gamma release assay
Positive tuberculin skin test in asymptomatic
Individuals

Toxoplasmosis:

- Toxoplasmosis is a major cause of ocular morbidity and poor vision after congenital or acquired infection.
- Is the most common cause of infectious retinochoroiditis and uveitis
- Typical symptoms of active disease are floaters and blurred vision.
- The causative organism, parasite .
- Cats are the definitive host .
- Exposure to environments where the infectious organism is found.
- uncooked and infected meat contaminated vegetables or water.

Toxoplasmosis:

Toxoplasmosis occurs during primary infection in pregnant women. In the first trimester, the fetal infection up to, %20–15 in the second up to 25%, and in the third up to 65–70% . The most compromised fetuses are those who are infected earlier.

Acquired Immune deficiency Syndrome (AIDS):

Cause: human immunodeficiency virus (HIV)

Transmission occurs by:

- sexual contact
- exposure to infected blood
- from an infected mother to fetus

Diagnosis: is made by detection of virus specific antibodies

Acquired Immuno deficiency Syndrome (AIDS)

Dry eyes are very common in patients with AIDS, retinal cotton-wool spots (fig 5), cytomegalovirus retinitis, and Kaposi's sarcoma of the eyelid or conjunctiva. (Fig 4)



Cat scratch disease :(bacteria)

- Low-grade fever
- Enlarged, tender lymph nodes
- A papule at the site of the scratch
- Eye infections

Ocular manifestations:

- Neuroretinitis
- uveitis,
- retinitis
- retinal detachment

Leprosy:

Is a chronic inflammatory disease caused by bacteria. Affects the skin , peripheral nerves and eyes.

Up to 75% of individuals with leprosy have ocular involvement

Ocular manifestations

madarosis ,lagophthalmos(fig.6),keratitis, corneal ulceration, scleritis ,conjunctival and scleral lepromas, uveitis, and detachment



(fig.6)lagophthalmos

Fungal infections of the eye

may lead to severe inflammation, their presence suggests immune deficiency or intravenous drug use .

Chlamydia trachomatis infection:

-is a common sexually transmitted disease (STD)

-conjunctivitis in infants and adult.