Cytomegalovirus retinitis

Cytomegalovirus retinitis, also known as CMV retinitis, is an inflammation of the retina of the eye that can lead to blindness. Caused by human cytomegalovirus, it occurs predominantly in people whose immune system has been compromised.

Presentation

Human cytomegalovirus (HCMV or CMV) is a DNA virus in the family Herpesviridae known for producing large cells with nuclear and cytoplasmic inclusions. Such inclusions are referred to as the "owl's eye" effect.

CMV infects around 40% of the population worldwide,[1] but in healthy adults it is usually controlled by the immune system. For people who are immunocompromised by diseases, transplants or chemotherapy, the virus is not adequately controlled and can cause damage to the eye and the rest of the body. HIV-positive people are most at risk, especially when the CD4 cell count is low. CMV commonly becomes reactivated and can cause systemic infection in immunocompromised people such as transplant patients or those infected by HIV.

It affects the eye in about 30% of the cases involving immunocompromised patients by causing damage to the retina. Symptoms can include blurred vision, eye pain, photophobia, redness, and blindness. It may affect just one eye at first, but then may spread to the other.

Treatment

Active cytomegalovirus retinitis is treated by an uveitis and ocular immunology specialist.

Because the virus is so threatening to vision, it is usually treated by a vitreo-retinal surgeon, by antivirals such as ganciclovir or foscarnet, which can be taken orally, intravenously, injected directly into the eye (intravitreal injection), or through an intravitreal implant.

Fomivirsen (brand name Vitravene), the first antisense drug to be approved by the FDA, was approved in August 1998 as an intraocular injection for the treatment of cytomegalovirus retinitis.

Risk factors

The systemic use of corticosteroids has recently been implicated as elevating the risk of CMV retinitis in AIDS patients.

Associated conditions

CMV retinitis in a patient with dermatomyositis was first reported in 2007.