

Ocular manifestations of AIDS (acquired immune-deficiency syndrome)

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1. Introduction to AIDS/HIV

The disease Acquired immune deficiency syndrome (AIDS) is the manifestation of Human immunodeficiency virus (HIV), an RNA virus. The virus has two subtypes of which HIV-1 is responsible for human infection. HIV (Human Immuno-deficiency Virus) infection is seen in a variety of ways associated with the ocular structures, with the influx of CD4+ T lymphocyte in the bloodstream the disease becomes more severe and its association with the ocular structures increases. In earlier stages Kaposi sarcoma, herpes zoster ophthalmicus (HZO), candidiasis, and lymphoma are commonly seen whereas tuberculosis, toxoplasmosis, etc occur later with more advancement of the disease. In patients with huge reduction of CD4 cell count, cytomegalovirus retinitis and mycobacterium-avium complex disease is also seen as the manifestation of HIV in individuals.

2. History and prevalence of HIV infection

In 1981, for the first time the clinical manifestations to human immunodeficiency virus-I (HIV-I) infection were linked with common eye involvements including cotton wool spots, cytomegalovirus, periphlebitis, and Kaposi sarcoma. Individuals who showed positive response to **Highly active anti-retroviral therapy (HAART)** showed improvement in their immune status.

From 2007 till 2016 the demographic data shows that, out of all the individuals affected with HIV/AIDS worldwide, ninety-five percent of the infection and death occurred in developing nations. HIV transmission occurs by sexual contact, by exposure to infected blood or fluids; of the common route the needle-sharing is the most common way for HIV to transmit, or it can transmit through an infected mother to the foetus during gestational stage.