

## Case Report

**Herpes zoster ophthalmicus in a patient with AIDS: A case report**Théra JP<sup>1</sup>, Hughes D<sup>2</sup>, Tinley C<sup>2</sup>, Bamani S<sup>3</sup>, Traoré L<sup>3</sup>, Traoré J<sup>3</sup><sup>1</sup>Pediatric Ophthalmologist and Forensic Medicine Doctor, Faculty of Medicine / Institute of African Tropical Ophthalmology, Bamako (Mali)<sup>2</sup>Pediatric Ophthalmologist, Consultant CCBRT Hospital, Dar Es Salam (Tanzania)<sup>3</sup>Professor, Department of Ophthalmology, Faculty of Medicine / Institute of African Tropical Ophthalmology, Bamako (Mali)**\*Corresponding author**

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**Abstract:** Patients with Acquired immunodeficiency syndrome (AIDS) are subject to many opportunistic infections among others Herpes zoster ophthalmicus (HZO). HZO may involve both ocular adnexa and ocular globe. We report the case of a young lady with HZO involving the cornea and the ocular adnexa.

**Keywords:** Acquired immunodeficiency syndrome (AIDS), Herpes zoster ophthalmicus (HZO).

**INTRODUCTION**

There has been a worldwide increase in the incidence of Human Immunodeficiency Virus infection/ Acquired immunodeficiency syndrome (HIV/AIDS), since the first cases were reported in 1981 from California, USA [1]. Ocular manifestations are common findings in patients with HIV/AIDS; the prevalence ranged from 37.7 to 75% [2]. Herpes Zoster is a common infection caused by the human herpes virus 3, the same virus that causes chickenpox. It is a member of herpes viridae, the same family as the herpes simplex virus, Epstein-Barr virus, and cytomegalovirus. Herpes zoster ophthalmicus occurs when a latent varicella zoster virus in the trigeminal ganglia involving the ophthalmic division of the nerve is reactivated. Of the three divisions of the fifth cranial nerve, the ophthalmic is involved 20 times more frequently than the other divisions.

HIV positive patients have a 15-25 times greater prevalence of zoster compared to the general population [3]. The incidence of HZO in the HIV population is reported to be 5-15% [4]. Reactivation of latent varicella zoster virus in the ophthalmic division of the trigeminal nerve causes herpes zoster ophthalmicus. The ophthalmic division branches into the lacrimal, nasociliary and frontal nerves. Involvement of the frontal nerve is common. When the nasociliary nerve is affected, the patients may present with vesicles at the tip of the nose, known as Hutchinson's sign. Studies have shown ophthalmic involvement in 99% of patients with this sign [5]. Herpes zoster ophthalmicus presents as vesico bullous

rash and may be associated with keratitis, sclerotic, uveitis, retinitis or encephalitis [6].

**CASE REPORT**

A 23-year-old HIV positive female presented with painful swollen right eye. Ocular examination revealed very swollen right eyelids along with keratitis and multiple vesico bullous rashes extending from the forehead to the right orbital area and the nose. The left eye was unremarkable. Regarded the HIV status of the patient as well as the clinical features, the diagnosis of Herpes zoster ophthalmicus was made. Then, the patient was put under medication with oral acyclovir and acyclovir ointment.



**Fig.1: Photograph of the patient with Herpes zoster ophthalmicus**

## DISCUSSION

Herpes zoster occurs in patients with HIV infection as well as other patients with depressed cellular immunity such as lymphoma patients and patients receiving immunosuppressive therapy. Characteristic prodromal symptoms include headache, generalized malaise and fever [7]. In younger individuals, it may be the initial manifestation of HIV infection [5]. Any patient younger than 50 years of age who presents with herpes zoster ophthalmicus is suspect of having HIV infection or any other immunosuppressive condition [8, 9]. The current patient was already known as HIV and was taking antiretroviral drugs. This patient was already known as HIV positive, so the immune system was depressed.

Herpes zoster ophthalmicus usually occurs in earlier stages of HIV disease in otherwise healthy patients. It is caused by the human herpes virus 3 and the main risk factors are decreasing immune competence and increasing age. Infection and inflammation secondary to zoster can affect virtually all ocular adnexa, and orbital tissues [10]. In this case, both the adnexa and the eyeball were affected.

## CONCLUSION

Herpes zoster ophthalmicus is may be the initial presentation of HIV infection. The prognosis may be sometimes severe because of the possible involvement of the anterior segment.

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