

# **CASE REPORT**

## **OCULAR MANIFESTATIONS IN A HIV POSITIVE AND SYPHILIS CO-INFECTION IN A 41 YEAR OLD MALE IN ALBANIA**

*Amarildo Belshi*

Department of ophthalmology, QSUT, Tirana, Albania

---

### **Abstract**

The incidence of HIV in Albania has increased over the last decade, particularly among men who have sex with men. The ocular involvement is a clinical manifestation of HIV. Syphilis is a sexual infection disease that in this increased in the last 10 years. A co-infection of HIV and syphilis appears to increase the risk of ocular manifestation. The ocular manifestation of the patients with a co infection HIV-Syphilis will present with unexplained visual complaint. I am presenting a case of an ocular syphilis in a patient HIV positive presented in the department of Ophthalmology in Mother Teresa Hospital.

---

**Keywords:** Syphilis, HIV, Case report, Albania

### **Case Report**

A 41 year old white male were presented at the department of ophthalmology in Mother Teresa Hospital, he complain that he has 1 week with a progressive reduction of vision in both eyes. The patient reported that there were about 6 weeks that he sees shadows in both eyes but this last week he has a deteriorating eye condition. The patient reported that in both eyes before reduction of vision he had noticed a slight redness of the eyelids. He did not report pain, photophobia and neurological problems; was not reported any medical history. The patient denied the use of drugs and alcohol, but reported that he was smoker of 15 years and he was consuming about 9 cigarettes a day. The man was positive in having unprotected sexual relations with other men in the past years in Greece, but these last 2 years in Albania he had been in a stable relation with a male.

During the physical examination, was seen edema of the both eyelids, sclera seems normal. Eye acuity was 3/10 for the left eye and 1/10 for the right eye. In both eyes were observed a posterior synechiae (adherence of iris

to the lens). While in the fundoscopic examination was observed edema of the optic disc of the left eye, and signs of inflammatory processes were seen in the retina in both eyes.

The patient underwent to laboratory examinations from where we got a normal blood value, but the ELISA test resulted HIV positive. Confirmation of HIV was conducted at the Institute of Public Health in Tirana with HIV RNA in the department of molecular biology. The number of CD4 + was 421 cells /mL. The bacterial culture was negative for Toxoplasma.

The patient was informed about the positive HIV diagnosis. The patient informed that when he was in Greece 5-6 years ago had been diagnosis and treated for syphilis. Patient was sent to the department of the infectious diseases and his eyes was evaluated every day by an ophthalmologist. The patient was treated with intravenous penicillin G.

On the day 10 after starting the therapy the eye condition began to improve. The patient referred that the blurry was gone and the vision was clearer. On the 21 day the patient had a vision of 5/10 in the left eye and 6/10 in the right eye. The edema of the papilla was gone, but sign of uveitis in the right eye with photophobia start to evidence more. We gave topic antibiotic treatment and small doses of steroid while continuing treatment in the department of infectious diseases. In week 6 the patient begins to have a clearer view of 7/10 in both eyes and the uveitis was resolved. In the third month the patient was presented again in the ophthalmology department without any problem, laboratory values were improved.

## **Discussion**

Syphilis is a sexually transmitted infection caused by a spirochete bacterium, *Treponema pallidum*. *Treponema pallidum* has the ability to infect multiple organ systems leading to protean clinical manifestations. The incidence of primary and secondary syphilis has increased markedly over the last decade, from 2.1 per 100,000 people in 2000 to 4.5 per 100,000 in 2011 (Strouhal et al., 2007).

The interaction between syphilis and HIV is thought to be symbiotic, though evidence for this is limited. HIV infection alters the natural history of syphilis leading to unusual and more aggressive clinical manifestations as well as earlier neurologic involvement (Balba et al., 2006).

The manifestation of infection with *T. pallidum* is ocular syphilis, a form of neurosyphilis (Aldave, King, & Cunningham, 2001). Ocular syphilis can occur at any stage of infection and may be the only clinical manifestation of infection. Although there is a wide spectrum of ocular manifestations of syphilis, uveitis is the most common (Curi, Machado, Heringer, Campos, & Orefice, 2006). Clinically, patients may present with eye pain and changes in

vision, including loss of visual acuity, central scotomas, and unilateral or bilateral involvement (Kuo, Kapusta, & Rao, 1998). Ophthalmoscope examination may reveal the presence of leukocytes and cloudy flares in the aqueous humor, synechiae, keratic precipitates, and other retinal lesions (Tandon et al., 2003). The differential diagnosis for ocular syphilis is broad. Since syphilis comprises less than 1-2% of all cases of uveitis, delays in diagnosis are common. The diagnosis is often not considered until a patient has failed to respond to steroid therapy (Cillino, Di Pace, Trizzino, Li Vecchi, & Di Carlo, 2012).

In HIV-infected patients, syphilitic involvement of the eye has been shown to occur earlier than in HIV-uninfected patients (Gaudio, 2006). Furthermore, ocular syphilis in the setting of untreated HIV is more frequently bilateral and more likely to involve the posterior chamber than in those without HIV (Thior et al., 1997). Ocular syphilis does not require immunosuppression to occur; it is therefore important to consider the diagnosis in HIV-infected patients with visual complaints regardless of CD4+ cell count.

*Treponema pallidum* cannot be cultured; diagnostic testing for syphilis typically consists of the identification of treponema serologic tests from the serum (Šmajš, Norris, & Weinstock, 2012).

As a conclusion, the diagnosis of ocular syphilis should be included in the differential diagnosis of unexplained acute or acute visual complaints, particularly in MSM and HIV-infected patients. Rapid diagnosis and treatment are essential for good outcomes.

### References:

- Aldave, A. J., King, J. a., & Cunningham, E. T. (2001). Ocular syphilis. *Current Opinion in Ophthalmology*, 12(6), 433–441. doi:10.1097/00055735-200112000-00008
- Balba, G. P., Kumar, P. N., James, A. N., Malani, A., Palestine, A. G., Welch, J. N., & Timpone, J. G. (2006). Ocular syphilis in HIV-positive patients receiving highly active antiretroviral therapy. *The American Journal of Medicine*, 119(5), 448.e21–5. doi:10.1016/j.amjmed.2005.11.016
- Cillino, S., Di Pace, F., Trizzino, M., Li Vecchi, V., & Di Carlo, P. (2012). Chancre of the eyelid as manifestation of primary syphilis, and precocious chorioretinitis and uveitis in an HIV-infected patient: a case report. *BMC Infectious Diseases*, 12(1), 226. doi:10.1186/1471-2334-12-226
- Curi, A. L. L., Machado, D. O., Heringer, G., Campos, W. R., & Orefice, F. (2006). Ocular manifestation of cat-scratch disease in HIV-positive patients. *American Journal of Ophthalmology*, 141(2), 400–1. doi:10.1016/j.ajo.2005.08.072

- Gaudio, P. a. (2006). Update on ocular syphilis. *Current Opinion in Ophthalmology*, 17(6), 562–6. doi:10.1097/ICU.0b013e328010a9b5
- Kuo, I. C., Kapusta, M. a, & Rao, N. a. (1998). Vitritis as the primary manifestation of ocular syphilis in patients with HIV infection. *American Journal of Ophthalmology*, 125(3), 306–11. doi:10.1016/S0002-9394(99)80136-6
- Šmajš, D., Norris, S. J., & Weinstock, G. M. (2012). Genetic diversity in *Treponema pallidum*: Implications for pathogenesis, evolution and molecular diagnostics of syphilis and yaws. *Infection, Genetics and Evolution*, 12(2), 191–202. doi:10.1016/j.meegid.2011.12.001
- Strouhal, M., Šmajš, D., Matějková, P., Sodergren, E., Amin, A. G., Howell, J. K., ... Weinstock, G. M. (2007). Genome differences between *Treponema pallidum* subsp. *pallidum* strain Nichols and *T. paraluisaniculiculi* strain Cuniculi A. *Infection and Immunity*, 75(12), 5859–5866. doi:10.1128/IAI.00709-07
- Tandon, R., Vajpayee, R. B., Gupta, V., Vajpayee, M., Satpathy, G., & Dada, T. (2003). Polymicrobial keratitis in an HIV-positive patient. *Indian J Ophthalmol*, 51(1), 87–88. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/12701872>
- Thior, I., Diouf, G., Diaw, I. K., Sarr, A. D., Hsieh, C. C., Ndoye, I., ... Kanki, P. (1997). Sexually transmitted diseases and risk of HIV infection in men attending a sexually transmitted diseases clinic in Dakar, Senegal. *African Journal of Reproductive Health*, 1(2), 26–35. Retrieved from <http://ovidsp.ovid.com/ovidweb.cgi?T=JS&PAGE=reference&D=med4&NEWS=N&AN=10214412>