CASE REPORT

Maxillary Herpes Zoster with Corneal Involvement in a HIV Positive Pregnant Woman

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ABSTRACT

Corneal involvement in maxillary herpes zoster is very rare. This report presents the case of a 32 years old 7 months pregnant para2+1 female, who presented with vesiculopapular rashes with hyperpigmented crusts over the maxillary area of the face on the left side with periocular oedema, conjunctivitis and mild punctate keratitis in the left eye. She was HIV positive and was on treatment with the highly active antiretroviral therapy. She was treated with topical and systemic acyclovir with rapid resolution of the ocular features. (Revue Africaine de Santé Reprod 2007; 11[1]:133-136).

RÉSUMÉ

Les herpès maxillaires de zona avec les atteintes cornéennes chez la femme enceinte séropositive L’atteinte cornéenne dans les herpès maxillaires de zona est très rare. Le cas d’une femme para2+1 âgée de 32 ans et qui est enceinte de 7 mois, qui a présenté des éruptions papulovésiculeuses avec des croûtes hyperpigmentées à travers la région maxillaire à côté gauche du visage avec l’œdème périoculaire, la conjunctivite, une kératite ponctuée faible dans l’œil gauche. Elle était séropositive et suivait un traitement à l’aide de la thérapie antirétrovirale hautement active. Elle a été traitée à l’aide de l’acyclovir systémique et topique avec une résolution rapide des manifestations oculaires. (Revue Africaine de Santé Reprod 2007; 11[1]:133-136).

KEY WORDS: maxillary, herpes zoster, HIV positive, cornea.

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**Introduction**

The human immunodeficiency virus (HIV) epidemic is a worldwide problem and the scale of infected numbers of people is vast.\(^1\) It was estimated that by December 1996, over 30 million persons (26.8 million adults and 2.6 million children) had been infected with HIV since the start of the global epidemic.\(^2\) The acquired immune deficiency syndrome (AIDS) was first reported in Nigeria in 1986, 5 years (1981) after the dreaded disease killed its first victim in the United states of America.\(^3,4\) Since then, the epidemic has been on the increase with a prevalence rate of 3.8% in 1993, which has increased to 5.8% in 2001.\(^5\)

The first report of the ocular manifestation of AIDS was by Holland et al\(^6\) and since then several studies have documented that 50% to 75% of adult AIDS patients will experience ocular complications.\(^7\) For the ophthalmologist in Africa, herpes zoster infection is a common first presentation of HIV infected individuals and the ocular effects may be extremely severe. In the Western developed countries, the most common ophthalmic problem is cytomegalovirus (CMV) retinitis, occurring in patients with AIDS who are severely immunocompromised.\(^1\) Reports from Nigeria show that most cases of herpes zoster affect the ophthalmic division of the trigeminal nerve.\(^8,9,10\) This report presents a case of herpes zoster affecting the maxillary division of the trigeminal nerve in a young pregnant woman in Benin City, Nigeria with the very rare involvement of the cornea.

**CASE REPORT**

The patient is a 32 years old female para\(^2+1\) Ibo trader. She is married, a Christian and lives in Benin City, Nigeria. She was referred from the antenatal clinic of the University of Benin Teaching Hospital, Benin City with a history of rashes of one-week duration. The rashes started from the left lower lid extending to the side of the nose and upper lip and cheek on the left side. There was no history of fever prior to the onset of the rashes. There was no associated slight pain over the area of involvement and left sided headache. The left eyelids became swollen and occluded 3 days after the onset of the rash.

There was no past history of chicken pox but was informed by her mother that she had childhood measles. She is not a known hypertensive or diabetic. The patient was 7 months pregnant which had been largely uneventful. There was no history of any other rash during this pregnancy but the patient had a slight fever in the first trimester of pregnancy. Her first delivery was a normal, spontaneous vaginal delivery in 1997. There was no history of blood transfusions or surgeries. The patient is HIV positive and is presently on highly active antiretroviral therapy (HAART) of two reverse transcriptase inhibitors and 1 protease inhibitor (nevirapine 200mg bd, stavudine 40mg bd and lamivudine 150mg bd). She tested HIV positive 1 year and 3 months before presentation. She does not smoke or take alcohol. Her husband is also HIV positive and on HAART but he has no history of any other illness. He tested HIV positive 3 months before his wife. He is a manager with a private company and lived and worked away from his wife for one year in Benin City in the year 2000 before his wife joined him from Onitsha.

Her visual acuity was 6/6 in the right eye and 6/9 in the left eye. There was periorbital oedema, vesiculopapular rashes with hyper-pigmented crusts over the maxillary area of the face on the left side (Figure 1). There was a slight mucous discharge and the conjunctiva was injected in the left eye. There was mild punctate staining of the cornea with fluorescein, the anterior chamber was deep, the lens was transparent and the fundus was normal in the left eye. The right eye was normal.

A diagnosis of maxillary herpes zoster with ocular involvement of the left eye was made and she was placed on topical acyclovir ointment 5 times daily to the left eye, tabs acyclovir 800mg 5
times daily for one week and caps Ampiclox 500mg qds for one week.

Two weeks later, the periorbital swelling, conjunctival injection and the corneal lesions had completely resolved. Her vision in the left eye had improved to 6/6. However, there were residual scarification marks on the involved skin with intense itching.

**Discussion**

The correlation between severe herpes zoster ophthalmicus in young adults and HIV seropositivity is well established.\(^{11}\) Herpes zoster is a marker for the HIV infection in Africa with a high positive predictive value.\(^{12}\)

The patient in this report was a young pregnant female on anti-HIV therapy. Typically, the patient was a young adult which is in agreement with other reports.\(^{8,9,11}\) In previous reports in Nigeria, herpes zoster ophthalmicus was most common in males.\(^{8,9}\) In Lagos,\(^8\) the male to female ratio was 5:1 while in Benin City, all the three cases of herpes zoster ophthalmicus who were HIV positive in an earlier report were all males.\(^8\) The only female who had herpes zoster ophthalmicus was HIV negative. None of these patients was reported to be pregnant.

Maxillary involvement by herpes zoster especially with ocular involvement is much less common compared to ophthalmic nerve involvement, and corneal involvement in maxillary herpes zoster is very rare.\(^{13}\) In an earlier report in Benin, no case of herpes zoster ophthalmicus in HIV patients involved the maxillary division.\(^8\) Indeed this is the first report of maxillary involvement in an HIV positive patient in Benin City. Ocular involvement included a marked periorbital oedema with inability of the patient to open the left eye unaided, conjunctivitis with mucous discharge and a mild punctate keratitis. This type of corneal involvement could also be due to topical drug toxicity. However, the patient had not used any topical eyedrops or traditional drugs before presentation.

The possible modifying factors of the clinical manifestations of herpes zoster in this patient include HIV infection, pregnancy and anti-HIV therapy. It is known that herpes zoster ophthalmicus in HIV infection is typically severe.\(^{11}\) However, in this case, ocular involvement was mild. This is most likely due to the fact that it was the maxillary division of the trigeminal nerve, rather than the ophthalmic division that was involved. Previously rarely diagnosed diseases have become much more commonly seen and other more common diseases may have altered clinical appearance and behavior since the advent of the acquired immunodeficiency syndrome.\(^1\) This case may represent one of such. It is also possible that the antiretroviral therapy may have modified the clinical course, making the manifestation milder. She had been on the highly active antiretroviral therapy for one year and three months before the onset of the maxillary herpes zoster. The physiologic changes of pregnancy may also contribute to modifying the clinical course of this disorder but it is a less likely reason compared to the HIV infection or the antiretroviral therapy, which have more profound effects on the immunity of the patient.

**REFERENCES**


