Cancrum oculi in a HIV positive child: a case report

I. O. Chukwuka,* D. Seleye-Fubara and *E. N. Etebu

Departments of Ophthalmology and *Anatomical Pathology, University of Harcourt Teaching Hospital, PMB 6173, Port Harcourt, Nigeria.

Correspondence to: Dr. D. Seleye-Fubara (E-mail: dsfubara@yahoo.com)

Abstract

Background: Cancrum oculi, is a very rare type of noma. Very few cases have been reported worldwide.

Aim: To report a case of cancrum oculi in a six-month-old HIV positive negroid female.

Setting: University of Port Harcourt Teaching Hospital (UPTH), Port Harcourt, Nigeria.

Case Report: A six-month-old HIV seropositive negroid female child was seen in UPTH with necrotizing chronic ulcer at the angle of the left eye.

There was also an intense oral thrush initially managed by the paediatricians and later referred to the Ophthalmology department for management. Clinical examinations and various investigations suggested the diagnosis of cancrum oculi.

Conclusion: Cancrum oculi, like other variants of noma complicate immuno-deficiency or can be a primary disease in immuno-competent patients with poor hygiene. It is a preventable disease.

Key words: Cancrum oculi, HIV, Port Harcourt

Introduction

Noma is a rare necrotizing infection commonly affecting the mouth, nose and the scrotum which are known respectively as cancrum oris, neris and Fournier’s gangrene. It is a disease commonly affecting children suffering from protein energy malnutrition, infectious diseases, immunodeficiency and emotional stress. Diagnosis of this disease in the eye is rare worldwide. We are reporting this case being the first seen in this centre for documentation in the literature.

Case report

P.G, a six-month-old negroid female was admitted to the Paediatrics department and managed for fever, chronic suppurative otitis media and mastoiditis. Ophthalmologic consult was sent for co-management of the patient because of a purulent discharging necrotic ulcer in the left eye (Figure 1). She was the only surviving child of the parents. She tested positive to retroviral screening and the CD4 cell count was as low as 150/μl.

On examination, the patient was ill-looking, warm to touch, not pale, anicteric but with intense oral thrush. The right eye was normal while the left showed a gaping ulcer involving the nasal part of the lower and the upper eye lids (Figure 1). The conjunctiva was hyperaemic with some discharge while there was a dry and opaque anterior cornea. The pupil reacted to light. A diagnosis of cancrum oculi was entertained. The noma of the eye presented as marginal necrosis with dusky red appearance, extending to the medial half of the left eye lids causing cellulitis with sloughing-off to form the ulcer. Conjunctival swab was taken for microscopy, culture and sensitivity. The child was placed on daily dressing of the ulcer with generous topical chloramphenicol therapy. The swab did not yield any growth after 48 hours incubation due to earlier antibiotic therapy with the paediatricians. Since there was no bacterial growth, special stain of the oral swab was done with Grocott’s silver stain and it showed black organisms signifying fungal infection. The oral thrush must have been acquired as a result of the long term treatment with broad
spectrum antibiotics. There was no history of the parents HIV status or any information of previous blood transfusion of the child. There was also no history of sharp object previously used on the child and no history of HIV-related death of other siblings. In view of a low CD4 cell count, she was started on antiretroviral therapy and discharged home. The patient was followed up for some time and during this period the wound was not healed. The patient was lost to follow up after the second visit.

**Figure 1. A six-month-old HIV positive child with oral thrush, nasal discharge and cancrum oculi**

**Discussion**

Noma, a generic name for cancrum oris, neris and Fournier's gangrene is a disabling and disfiguring gangrenous disease occasionally seen in malnourished children and adults. This disease tends to complicate debilitating infections such as HIV and measles. It also includes a rare cancrum oculi which is a necrotizing synergistic infection usually caused by streptococcal infection, actinomycosis, fusiform bacilli and *Borrelia vincenti* which are occasionally oral commensals. An earlier study on Fournier's gangrene by Eke et al. show different organisms. Ours yielded no organism on culture. The reason may be attributable to the earlier anti-biotic therapy administered by the paediatricians. It has been reported that, long term treatment with broad spectrum antibiotics, corticosteroids and vitamins A or vitamin B complex deficiency is a template for **mycotic infection in normal and immunocompromised patients**. The long term treatment with broad spectrum antibiotics must have been responsible for the oral thrush developing in our patient and the rate of growth may be accelerated by the immunodeficiency. Since there was no history of previous use of sharp object of our patient, no previous blood transfusion of unscreened blood and no history of the parents HIV status, we believe that, the HIV must have been transmitted vertically.

One report by Waldron showed that, oral thrush with hyperparathyroidism, keratoconjunctivitis and Addison's disease constituted a form of syndrome characterized by pseudoeptilomatous hyperplasia with fungal invasion, showing that, a semblance of cancrum oculi would occur in other conditions. Noma can be prevented in immuno-competent children by sustained high levels of measles immunization, education regarding improved quality of weaning, child diet and better oral hygiene.

Finally, we hope that, this case report, being the very first in our centre could help draw attention to this preventable but very rare disease with potential dangerous consequences.

**References**