

ORAL MANIFESTATIONS AMONG HIV INFECTED PATIENTS IN ENUGU, ENUGU STATE, NIGERIA

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Abstract

The oral cavity of fifty (50) HIV positive patients (26 males and 24 females) attending the University of Nigeria Teaching Hospital, Enugu between July to September, 2003 were examined for the presence of oral lesions using tweezers and mouth mirrors. Simple random sampling was used *in* selecting the patients. The result of the study revealed the presence of oral lesions/manifestations among all the fifty HIV positive patients. Oral candidiasis had the highest occurrence (74%) followed by oral ulcer (42%). Other oral manifestations observed among the HIV infected patients include xerostomia (34%), oral Kaposi sarcoma (26%), Hairy leukoplakia (24%), Anug (12%), Venerable warts (12%), angular cheilitis (8%), and Non-Hodgkins lymphoma (8%). The most frequently observed multiple oral manifestation were oral candidiasis, oral ulcers, periodontitis, Kaposi sarcoma and hairy leukoplakia. Oral manifestations were observed more frequently in males than the female patients. The result of this study suggests the need for regular dental examination for HIV/AIDS patients and observance of adequate precautionary measures by dental practitioners while handling patients with multiple oral manifestations.

Introduction

The Human Immunodeficiency Virus (HIV) infection is a worldwide disease with the major characteristics of weakening the immune system. This condition eventually leads to opportunistic infections and malignancies that later culminates to Acquired Immunodeficiency Syndrome (AIDS) (Talaro and Talaro, 2001; Aguirre-Urza et al., 2004). Some oral lesions has been frequently associated with HIV infection. Such oral manifestations including oral candidiasis, hairy leukoplakia, angular cheilitis, oral ulcer, Kaposi sarcoma has been widely reported among HIV/AIDS patients in the developed countries (Reichart; 2003; Reichart et al., 2003). Few reports are however available in the developing countries (Agbelusi and Wright, 2005; Onunu and Obuekwe, 2002).

However, some studies had indicated reduction in the number of oral lesion in patients on Highly Active Anti-Retroviral Therapy [HAART] (Schmidt-Westhausen et al., Reichart, 2003, Anleyi et al., 2003). The present work aims at determining the presence of oral lesions and associated problems among HIV infected patients.

The objective of this study was to determine the presence of oral lesion s and associated problems among HIV infected patients using Enugu, in Enugu state as the area of the study.

Materials and Methods

Out of a population of 200 patients identified HIV positive using the enzyme linked immunosorbent assay (ELISA) technique attending the University of Nigeria Teaching Hospital, Enugu, as at the time of this survey (July - September, 2003), 50 - 26 males and 24 females were randomly selected for this study. The purpose of the study was explained to the participants.

The oral cavities of each of the patients were thoroughly examined using tweezers and mouth mirrors. The parts of the oral cavities examined for the presence of oral lesions and associated problems includes, the tongue, lingual and palatal surfaces, periodontium, and anterior and posterior tooth surfaces.

Area of Study

University of Nigeria Teaching Hospital, Enugu is a tertiary level health institution located in Enugu. South-Eastern Nigeria. It is one of the HIV/AIDS referral centres in the South-Eastern Nigeria.

Instrument for Data Collection

Simple data select was used to record the results of the oral examination for each of the participating patients.

Validation and Reliability of Instruments

The data were authenticated by HIV counselors and Dental professionals to determine its ability to achieve the set goal.

Methods of Data Analysis

The data obtained were analysed using percentages and Table.

Result

Oral lesions/manifestations were observed in the oral cavities of all the fifty (50) HIV positive patients involved in the study. Oral candidiasis manifestations observed among the HIV infected patients includes: necrotizing (34%) Oral Kaposi sarcoma (26%), Hairy leucoplakia (24%), necrotizing gingivitis (24%), periodontitis (14%), Anug (12%), venereal warts (12%), angular chelitis (8%) and Non-Hodgkins lymphoma (8%) (Table 1). The most frequently observed multiple oral manifestation were oral candidiasis, oral ulcers, periodontitis, and Kaposi sarcoma and hairy leucoplakia. Oral manifestations were observed more frequently in males than the female patients.

Table 1: The Oral Manifestations Among HIV/AIDS Patients

Oral Manifestations	No. of Patients	% Frequency
Xerostomia	17	34
Oral ulcer	21	42
Hairy leucopolakia	12	24
Oral candidiasis	37	74
Necrotizing gingivitis	12	24
Periodontitis	7	14
Oral Kaposi sarcoma	13	26
Anug	6	12
Veneral warts	6	8
Non-Hodgkin's Lymphoma	4	8
Angular chelitis	4	8

Discussion

The result of this study showed that all the fifty (50) patients examined presented evidence of oral manifestations in their oral cavities. This is in line with prior studies in which high prevalence of oral lesions among HIV infected individuals were reported (Johnson et al., 1998; Ramirez-Amador et al, 1998; Lim et al., 2001; Reichart, 2003; Anteyi et al., 2003; Agbelusi and Wright, 2003).

The observation in this study that oral candidiasis was the most occurring oral manifestations among the HIV positive patients studied is in accordance with previous reports (Vander Waal et al., 1991; Lim et al., 2001; Khongkunthian et al., 2001; Reichart, 2003; Reichart et al., 2003; Anteyi et al., 2003). It is important to note however that the 74% prevalence recorded in this study was high compared to the prevalence reported by other works as cited above. The high prevalence in this works could be as a result of the low level of highly active Anti-retroviral therapy (HAART) availability and usage among HIV/AIDS patients in Nigeria as at time of this research. Previous studies has reported a significantly lower ($P=0.001$) number of lesions among HIV/AIDS patients receiving HAART (Schmidt-Westhausen, 2000; Anteyi et al., 2003).

The identification of 24% hairy leucoplakia among the patients in this study is also worthy of note. This is because it has been reported previously by many researchers among HIV/AIDS patients (Vander Waal et al., 1991; Khongkunthian et al., 2001; Ramirez-Amador et al., 1998; Reichart et al., 2003; Agbelusi and Wright, 2005). The reason for the increased prevalence in this study may not be unconnected with the unavailability of HAART in Nigeria at the time of this research. However, Johnson and Co-Workers in 1998 did not observed the presence of hairy leucoplakia among 100 Zimbabwean HIV/AIDS patients studied.

Although this study recorded presence of Anug in 12% of the patients, Khongkuntian and colleagues (2001), reported the absence of NUG and periodontal disease out of 87% HIV positive patients examined. The reason for this variation may be attributable to the availability and usage of HAART in Nigeria as previously highlighted oral ulcer, periodontitis, Kaposi sarcoma and hairy leucoplakia. This type of multiple manifestations has been reported by Arendorf and colleagues (1998).

Furthermore, the observation of more oral lesions among the male patients than females in this study is in conformity with the work of Ramirez-Amador and colleagues (1998), in which oral ulceration were reported to be present only in men.

Recommendations

The following recommendations are suggested:

- a) Dental patients presenting with oral manifestations especially oral candidiasis, and oral ulcer should be referred for HIV test.
- b) Dental professionals should be trained on standard safety procedures against HIV/AIDS cross infection in clinic setting.
- c) Dental clinics should be equipped with modern sterilization equipments.

Conclusion

The fact that all the fifty HIV positive patients examined showed evidence of oral manifestation is a clear indication that oral lesions are common features among HIV/AIDS patients in Enugu State. It can be also be stated that, oral candidiasis which accounted for over 70% occurrence among the patients could be an indication to probable HIV/AIDS infection in Enugu State.

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