

AIDS ASSOCIATED HEAD AND NECK PRESENTATION IN KADUNA, NIGERIA – AN UPDATE

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ABSTRACT

Background: Head and neck symptoms can be the first manifestation of disease in patients infected with the human immune deficiency virus (HIV). Diagnosis is often based on a high index of suspicion. The study is aimed at highlighting the common primary Head and neck manifestations of HIV/AIDS at two tertiary otolaryngology referral centres and comparing it with a previous study done in the same environment.

Methodology: A one-year retrospective study of thirty-two patients presenting over a 12 month period between September 2002 and August 2003, with suspicious Head and neck symptoms and were serologically confirmed to be HIV positive at the Otolaryngologic clinics of the National Ear Care Center and 44 Nigerian army reference hospitals Kaduna.

Results: There were 19 males and 13 females with the age range 21 to 40 years most affected (68.75%). 10 patients (31.3%) presented with otitis media, 9 patients (28.2%) with facial nerve paralysis, 6 (18.8%) patients with salivary gland enlargement (parotitis/sialadenitis), 4 (12.5%) with sinusitis, 3 (9.4%) with tonsillitis/pharyngitis, 2 (6.3%) with cervical adenitis, 2 (6.3%) with pharyngeal tumour and 1 (3.1%) each with sensorineural hearing loss, neck abscess and cavernous sinus thrombosis. Other minor head and neck illnesses were also recorded.

Conclusion: The head and neck region is a common site of presentation of HIV infection. A high index of suspicion is required for early diagnosis and prompt management.

Key words: HIV/AIDS, HEAD AND NECK, KADUNA

INTRODUCTION

Acquired immune deficiency syndrome (AIDS) was first recognized in 1981 among homosexual men in USA. The causative organism, Human immune deficiency virus (HIV) was isolated in 1983 and a serological test detecting antibodies to HIV was available

by June, 1985¹. The number of patients with AIDS has grown rapidly since the first reported case. It is estimated that out of the 5.5 billion-world population, 22.6 million (0.4%) are living with HIV/AIDS. Also, since the epidemic began, an estimated 6.4 million people have died from HIV/AIDS

related complications. An estimated 3.1 million new HIV infections occurred in 1996 alone (an estimated 8000 to 9000 infections per day) ¹

There are presently a growing number of recognized substrains of the virus with HIV-1 prevalent in the USA while HIV -2 and the newly uncovered variant of HIV -1 prevalent in Africa especially in West African sub-region^{2,3}. Infection is transmitted through contaminated body fluids. The HIV virus is a retrovirus and thus an RNA virus. It consists of a protein core surrounded by a lipid envelope. The lipid envelope contains glycoprotein (gp) 120, which selectively binds to CD4 receptors, which allows the virus to fuse with the cellular membrane releasing its core protein and viral RNA into the cytoplasm of the cell. An enzyme, reverse transcriptase catalyses the synthesis of a double stranded DNA copy using the viral RNA genome as template. Thus the DNA is subsequently incorporated into the host genome by viral integrase and new viral particles are synthesized by repeated transcription into RNA⁴. The virus enters the body most effectively through CD4 receptors, which are found most abundantly in the T4 lymphocytes (T -helper) population of the white cells, thus its previous name Human T-lymphocyte Virus (HTLV)⁵. However CD4 receptors are present in other cells such as macrophages, Langerhans cells, microglia cells of CNS and B-lymphocytes.

HIV being a retrovirus utilizes host cellular apparatus for reproduction and infection leading to destruction of its target cells (T4), which are vital for cellular immunity, thus immunosuppression. Later involvement of other components of the complex immune system e.g. B-cells and complement system leads to further immunosuppression. The clinical manifestation of the disease is due to opportunistic infections and neoplastic processes prevailing in the presence of T-cell immunosuppression. This study outlines the HIV-AIDS associated head and neck presentations in our patients and compares them with a previous study carried out in the same environment⁶.

PATIENTS AND METHODS

This is a retrospective review of thirty two (32) patients who presented at the ENT Departments of the National Ear Care Centre (NECC) Kaduna and the 44 Nigerian Army Reference Hospital Kaduna (44 NARHK) between September 2002 and August 2003, with primary head and neck symptoms and were found to have HIV infection serologically confirmed. Data extracted from the patient's clinical records included the biodata (sex and age), presenting symptoms, findings on examination, diagnosis and HIV status. Patients who were HIV negative, those known to be positive and on treatment by physicians for HIV/AIDS or AIDS related illnesses before referral, and those who despite suspicious physical findings refused to undergo HIV Screening after counseling were excluded. Data extracted were analyzed using descriptive method and results presented in tabular forms and figure.

RESULTS

Between September 2002 and August 2003 thirty- two (32) patients were seen with HIV/AIDS associated primary head and neck presentation.

There were more females than males M: F 1:1.5, with the age range between 21 and 40 years most affected (68:75%). This is shown in Table 1.

TABLE 1: AGE AND SEX DISTRIBUTION OF PATIENTS WITH PRIMARY HEAD AND NECK PRESENTATION OF HIV/AIDS.

AGE RANGE (YEARS)	SEX		TOTAL NO N=32 (%)
	M	F	
0 – 10	1	1	2 (6.25)
11 - 20	2	-	2 (6.25)
21- 30	8	2	10 (31.25)
31 – 40	7	5	12 (37.5)
41 – 50	1	3	4 (12.5)
51 – 60	-	2	2 (6.25)
TOTAL	19	13	32 (100)

Table 2 compared the different head and neck presentation in this study with that of the previous study carried out in this environment in 1998. Chronic suppurative otitis media (CSOM) was the commonest presentation in this study. Of the ten (10) patients with CSOM 8 (80%) were bilateral, with mixed flora cultured from 12 ears. Three patients with CSOM also had painless parotidmegaly. Facial nerve palsy was the second commonest presentation in this study. Of the nine (9) (28.2%) patients with facial nerve paralysis, six 6(66.67%) had a history of Herpes Zoster oticus (Ramsay Hunt Syndrome). One of the patients with Ramsay Hunt Syndrome also had severe sensorineural hearing loss and tinnitus on the same side. Six patients (18.8%) had salivary gland enlargement: parotid gland 5 (83.3%) and submandibular gland 1 (16.7). Only one case of retropharyngeal abscess in a 30-year-old male was recorded in the present study and was due to mixed flora. Two (2) cases of Oropharyngeal tumours were seen. Both were adult females, however, one refused biopsy after serological confirmation of positive HIV status and the other died before histological diagnosis was confirmed.

Other Head and Neck lesions such as, recurrent carbuncles of the head and neck in the presence of normal blood sugar, recurrent aphthous ulcers, epistaxis and coryza are still common complains.

DISCUSSION

The clinical presentation of HIV/AIDS is so varied and occasionally bizarre that diagnosis is based on a high index of suspicion⁶. Transmission is through intimate contact with virus infected cells predominantly lymphocytes and monocytes present in fluids. Though the virus has been cultured from almost every body fluid blood, semen and vaginal secretions are the major sources of transmission. In recent times, breast milk is becoming an important source of transmission while transmission through saliva is still a subject of medical debate.

The 44 NARK used to be the only centre with specialist ENT Clinic in Kaduna. NEEC became fully operational in 2002. Therefore

TABLE 2: COMPARATIVE EVALUATION OF AIDS IN THE HEAD AND NECK

HEAD AND NECK PROBLEM AT PRESENTATION	IMOGU (1998) NO (%)	PRESENT STUDY NO (%)
Otitis media (CSOM)	1 (7.1)	10 (31.3)
Facial nerve paralysis	-	9 (28.2)
Salivary gland enlargement	6 (42.9)	6 (18.8)
Sinusitis	4 (28.65)	4 (12.5)
Cervical Adenitis	10 (71.4)	2 (6.3)
Tonsillitis/Pharyngitis	5 (35.7)	3 (9.4)
Oropharyngeal Tumour	-	2 (6.3)
Sensorineural hearing loss	-	1 (3.1)
Retro pharyngeal abscess	2 (14.4)	1 (3.1)
Cavernous Sinus thrombosis	-	1 (3.1)
Non – Hodgkin's lymphoma	1 (7.1)	-
Head and Neck Skin lesions	3 (21.4)	1 (3.1)

the increase in the number of patients with primary presentation of HIV/AIDS in the head and neck as reported may be real. However, it may be due to increased awareness and availability of specialist ENT facilities at the time of the present study. Head and Neck presentation in HIV infection accounts for about 40% of presenting complaints in most reported series^{7,8}. It may be the sole presenting complaint or may be associated with symptoms in other systems. Similar studies carried out in other centers in Spain⁷, Brazil⁹ and the USA⁸ showed Oropharyngeal Candidiasis and Kaposi sarcoma as the commonest primary manifestations of HIV/AIDS in the head and neck. This differ with our findings of chronic suppurative otitis media as the commonest. However, Kaposi sarcoma is not a common manifestation in blacks and cases of

HIV/AIDS in Kaduna

Oropharyngeal Candidiasis are more likely to present to medical officers and physicians than specialized clinics like ours.

CSOM was the commonest presentation in this study whereas cervical adenitis was the most common in the previous study. Tonsillitis is still commoner in the younger age group while pharyngitis is commoner in adults. Recurrent attacks of acute sinusitis remains a common presentation, with one patient in the present study presenting with cavernous sinus thrombosis as a complication. All patients presenting in this study were offered treatment for their head and neck problems including tonsillectomy and antrostomy. They were subsequently referred to a physician for commencement of anti retroviral therapy.

CONCLUSION

AIDS in the head and neck region is a common presentation of HIV infection. A high index of suspicion is required for early diagnosis and prompt management. CSOM unresponsive to conventional treatment, Herpes Zoster oticus, recurrent unexplained salivary gland enlargement, cervical lymphadenitis, bronchopulmonary opportunistic infections and malignancies were some of the common head and neck presentations. The Otolaryngologist may be the first physician to evaluate the patient with HIV infection and therefore must be aware of the various manifestations¹⁰. The Otolaryngologist may also be involved in diagnosing and managing the disease through modalities such as biopsy, endoscopy, tracheostomy and other surgical procedures. In all phases of care, it is important to retain a medically appropriate and psychologically supportive environment. Patients must therefore be counseled and made aware that when found positive for HIV / AIDS they will be treated of the head and neck problem they presented with and also there are various drugs that will halt the progression of HIV/AIDS.

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