

Otorhinolaryngology Diseases in HIV-Positive Patients: 208 Cases at the Donka National Hospital

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How to cite this paper: Keita, A., Diallo, I., Diallo, M.A., Diallo, M.M.R., Kourouma, S., Mamady, F., Barry, A.O., Kaman, M.C., Bayo, A., Kaba, M.K., Doumbouya, F.A. and Sow, M.S. (2023) Otorhinolaryngology Diseases in HIV-Positive Patients: 208 Cases at the Donka National Hospital. *International Journal of Otolaryngology and Head & Neck Surgery*, 12, 1-7.

<https://doi.org/10.4236/ijohns.2023.121001>

Received: October 26, 2022

Accepted: January 8, 2023

Published: January 11, 2023

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Abstract

Introduction: Otorhinolaryngology (ENT) diseases in patients living with Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome (HIV/AIDS) are relatively common and of concern to ENT specialists and other health professionals. **Aim:** It was to describe the epidemiological and diagnostic aspects of ENT and cervicofacial diseases in patients living with HIV/AIDS. **Material and Methods:** This was a descriptive study with prospective data collection, conducted over a period of six months (September 16, 2019 to March 16, 2020), carried out at the ENT and Infectious Diseases Departments of the Donka National Hospital. **Results:** Of 522 HIV-positive patients, 208 (39.8%) presented with ENT diseases. Women represented 62.5% with a sex ratio of 0.6. The mean age was 42.21 years with extremes of 16 and 64 years. Housewives were the most represented (29.8%). Married people were the most affected (76.4%). Cervical involvement was present in 7.7% of patients. Otologic involvement accounted for 43.7%. Oral cavity and pharyngolaryngeal involvement accounted for 50.9%. Nasosinus involvement accounted for 55.7%. HIV type I was the most common (99.5%). **Conclusion:** Otorhinolaryngology diseases were frequent in HIV positive patients. They may constitute the first reason for consultation. However, these ENT diseases remain in appendix of the opportunistic diseases of HIV/AIDS taking the front stage.

Keywords

Otorhinolaryngology Diseases, Epidemiology, HIV/AIDS, Diagnosis,

1. Introduction

Immunodeficiency is the condition of a person whose immune system cannot protect the body and results in increased susceptibility to various diseases. Seropositivity in the case of human immunodeficiency virus (HIV) infection indicates the presence of antibodies to HIV. Acquired immunodeficiency syndrome (AIDS) is the late and complicated form of human immunodeficiency virus (HIV) infection [1] [2]. On the African continent, HIV infection is much more frequent than in Western countries [3]. ENT disorders during HIV/AIDS infection are of interest not only to ENT specialists, but also to general practitioners and other health professionals outside of referral hospitals. Indeed, more than half of HIV-infected patients present with ENT and cervicofacial manifestations. These manifestations can be seen at all stages of HIV/AIDS infection. They cause additional discomfort for patients and may therefore be the first reason for consultation [4] [5]. Their high frequency is of concern to health professionals, particularly ENT specialists and infectious diseases specialists. They are polymorphic and can occur at all stages of HIV/AIDS infection [1]. They can reveal the disease and therefore deserve to be well known by ENT specialists [3]. That's why, in ENT, its clinical polymorphism is sometimes subject to diagnostic error which would be linked to the insufficiency of adequate investigation. This imposes on this specialty a real challenge in the management of these ENT diseases in our African context [6], particularly in sub-Saharan regions.

Our objective was to describe the epidemiological and diagnostic aspects of ENT and cervicofacial diseases in patients living with HIV/AIDS in the sub-Saharan environment.

2. Material and Methods

This was a cross-sectional descriptive study with prospective data collection. It was conducted over a six-month period (September 16, 2019, to March 16, 2020) in the ENT and infectious diseases departments of the Donka National Hospital. The study population involved all HIV/AIDS cases received in these 2 services during the study period. We included all HIV/AIDS cases who agreed to participate freely in the study. We excluded all cases who did not agree to participate in the study. We conducted an exhaustive recruitment of all cases meeting our selection criteria. The data were collected from the collection media (clinical records of the patients, consultation and hospitalization registers) and mentioned on a collection form established for this purpose. We studied the epidemiological and diagnostic parameters.

Epidemiological parameters:

- Age: represented the period from the patient's birth to the day of admission to the ward.
- Sex: allowed us to look for gender predominance.
- Origin: used to search for the patient's residence.
- Risk factors: allowed to search for situations or elements responsible for the occurrence or aggravation of ENT manifestations in patients living with HIV/AIDS.

Diagnostic parameters:

- Location of lesions: allowed to find the topography of ENT conditions encountered in patients.
- ENT conditions: concerned the ENT diseases encountered in the patients.

The data were entered and analyzed using SPSS software version 20. We obtained the approval of the ethics committee of the Donka National Hospital and the informed consent of the patients. The principle was anonymity and medical confidentiality. The data were used for purely scientific purposes.

3. Results

In 6 months, we counted 522 seropositive patients among whom 208 seropositives presented an ENT and cervicofacial diseases, or a prevalence of 39.8%. We observed 62.5% of women with a sex ratio of 0.6. The mean age was 42.21 years with extremes of 16 and 64 years. The age group 35 to 44 years represented 33.1%. Housewives accounted for 29.8%. Married and single people represented 76.4% and 12.5% respectively. The urban origin was 81.3% of the cases.

Clinical manifestations were polymorphic in all patients (100%). General signs were represented by physical asthenia (87%), anorexia (64.4%), weight loss (41.8%) and fever (30.3%).

Human immunodeficiency virus 1 was observed in 130 patients (99.5%). Human immunodeficiency virus 2 was recorded in one patient (0.5%). CT scan of the facial sinuses were performed in 16 patients (7.7%), chest X-rays in 14 patients (6.7%), cervical ultrasound in 8 patients (3.8%), combined pure tone audiometry and tympanometry in 6 patients (2.9%) and nasofibroscopy in 7 patients (3.4%). CD4 count was performed in 20 patients. Fourteen of them had a CD4 count below 250 cubic millimeters (6.8%). Fourteen patients had a CD4 count below 250 (6.8%), 4 patients had a CD4 count between 250 and 500 (1.9%) and 2 patients had a CD4 count above 500 (0.9%). Eighty-two point eight percent of the patients were followed as outpatients. According to the topography of diseases (**Table 1**), nasosinus involvement was observed in 55.7% of cases including rhinitis (80.2%), rhinosinusitis (18.9%) and epistaxis (0.9%). Oral cavity and oropharynx involvement accounted for 50.9% including candidiasis (54.3%), tonsillitis (37.2%), Oral thrush (3.8%). The otological involvement represented 43.7% including cochlear neuritis (61.7%), otitis externa (10.7%), seromucosal otitis (10.7%). Cervicofacial involvement accounted for 7.7% including adenopathy (68.3%), Facial shingles (4.5%) and Goiter (4.5%).

Table 1. Distribution of ENT conditions encountered.

ENT diseases	Number	%
Nose and sinuses	116	55.7
Rhinitis	93	80.2
Rhinosinusitis	22	18.9
Epistaxis	1	0.9
Oral cavity and pharyngolaryngeal	106	50.9
Candidiasis	57	54.3
Tonsillitis	39	37.2
Oral thrush	4	3.8
Cold sores	4	1.9
Oral Kaposi	2	1.9
Laryngitis	1	0.9
Otological	91	43.7
Cochlear neuritis	69	61.7
Otitis externa	12	10.7
Seromucosal otitis	12	10.7
Chronic open ear drum otitis media	8	7.2
Cerumen plug	7	6.2
Peripheral facial paralysis	5	5.5
Acute otitis media	4	3.5
Cervicofacial	16	7.7
Cervical adenopathy	15	68.3
Facial shingles	1	4.5
Goiter	1	4.5

4. Discussion

In the present series, our limitations were marked by the reluctance of patients to participate in the study, the regulatory aspect of the use of patients' medical records and the absence of the therapeutic component. However, we did collect 208 cases of HIV-positive patients with ENT conditions, which prompted the following discussion.

Otorhinolaryngology and cervicofacial manifestations in HIV-positive patients are frequent and polymorphic during the course of the disease. They can be the first signs of HIV/AIDS and constitute the revealing mode of the disease. However, none of these ENT manifestations are specific to this virus. The role of the ENT practitioner is therefore essential in the early management of these ENT disorders. Nearly 60% of HIV-infected patients present an ENT or cervicofacial

disease during the course of the disease [7]. In 6 months, we noted a prevalence of 39.8%. Mohamed AG [8] reported 2.7% of ENT disorders in his series. Boko E [3] found 45 (0.19%) seropositives out of 23785 consultants at the Tokoin University Hospital (1991-1995) and 65 (0.77%) seropositives out of 8385 consultants at the Campus University Hospital (1995-2000). The team of Ndjolo A. [9] observed 76 seropositive patients (2000-2002) in the ENT departments of the city of Yaounde. This difference in frequency would result from the duration of the studies and the variety of methodological approaches. In a similar study in Guinea, Keita A [10] found a prevalence of 22.9% of ENT diseases. Our hospital prevalence suggests the increasing incidence of ENT disease among HIV-positive people in Guinea. Women dominated in our series. However, Vignikin-Yehouessi B [1] in Cotonou found a male predominance. The youngest patient was 16 years old and the oldest 64 years old. Ondzotto G [11] found 9 months and 76 years. The onset of HIV infection is highly variable, but most authors agree that in Africa infection is early. This could be extrapolated to our average age (42.21 years) with the predominance of the 35 to 44 years age group (33.2%). Kawashi FN [4] and Ondzotto G [11] reported mean ages of 40.6 and 34 years, respectively. Mohamed AG [8], reported a peak in the age range of 20 to 34 years. In our regions, HIV screening is neglected. ENT diseases in HIV-positive people are generally indicative of this virus, which is targeted at young people without distinction of socioprofessional strata. To this effect, housewives (29.8%) and shopkeepers (21.6%) were largely listed in our series. Most of them lived in urban areas (81.3%) where our study is based. This remark could be explained by the lack of information and the inadequacy of awareness campaigns on HIV testing, the low level of education, the low social level and the multiple partners that seem to be easily approved when it comes to men.

The clinic was polymorphous. nasosinus affections were more frequent, followed by affections of the oral cavity. Chronic rhinitis (80.2%) and oropharyngeal candidiasis (54.3%) were dominant. The frequency of rhinitis in immunocompromised patients has been assessed differently in the literature. Oropharyngeal candidiasis was represented by 13.5% in the series of Vignikin [1]. Our finding would result from the immunosuppression of patients which is conducive to viruses. Their exposure to factors favoring ENT diseases would accentuate the symptomatology. Our observation is consistent with the literature and with those of other African colleagues such as Ondzotto G [11] and Boko E [3]. This variety of ENT pathologies depends on the series and the context of the study. However, they are a concern for ENT and infectious diseases practitioners in terms of their adequate management. Multidisciplinary collaboration is very effective in achieving satisfactory results.

We found a predominance of HIV 1 (99.5%). Ondzotto G [11] and Vignikin [1] also found this predominance in 72.3% and 88.5% respectively. These results corroborate the data in the literature, namely that HIV 1 is widespread in the world and in our country with an HIV 2 type found in West Africa. We used

imaging, particularly CT scans, which were performed on a case-by-case basis to better assess the lesions. It was much more indicated for nasosinus lesions. Viral load detection was not exhaustive. However, 14 patients (6.8%) had a CD4 count below 250 cubic millimeters. As such, we performed a close follow-up of these patients.

5. Conclusion

Otorhinolaryngology diseases in HIV-positive people have been common. They have been indicative of HIV/AIDS. Moreover, they remain opportunistic affections taking the front stage. They can affect the entire ENT sphere. It is advisable for the ENT surgeon, in the initial phase, to consider performing a retroviral serology at the slightest doubt in order to make an early diagnosis and opt for a multidisciplinary management, particularly in the African environment, give the difficulties of managing these chronic and recurrent diseases.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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