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## ENT PATHOLOGIES AROUND HIV / AIDS: EPIDEMIOLOGICAL, CLINICAL AND THERAPEUTIC ASPECTS AT THE DONKA NATIONAL HOSPITAL

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### ABSTRACT

ENT pathologies in the course of HIV / AIDS infection are relatively frequent and are of concern to ENT and other health professionals. The aim of this study was to describe the epidemiological profile and clinical aspects of ENT and cervico-facial pathologies in the context of HIV / AIDS infection. This was a prospective study of a descriptive type over a period of six months, July to December 2012 that we collected from 131 patients. Of 572 HIV-positive patients, 131 patients had ENT pathologies with 22.9%. Female predominance was observed with a sex ratio of 1.6. The average age of our patients was 37.35 years with extremes 16 and 62 years. The age group of 25 to 34 was the most affected with 29.7%. The analysis of the socio-demographic situation showed a predominance among housewives 37%, the grooms were the most represented 71%. Cervical adenopathies were present in 84% of our patients, otological infections accounted for 63.6%, oral pharyngeal candidiasis in 72% and rhinological infection in 84.6%. Type I HIV was the most frequently reported. ENT manifestations during HIV infection are diverse and may be a reason for consultation. However, these infections remain an adjunct to opportunistic pathologies taking center stage.

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### INTRODUCTION

Otorhinolaryngological (ENT) and cervicofacial manifestations during HIV-AIDS infection are becoming more frequent and more of a concern for ENT specialists and other health professionals outside referral centers (Kawashi, 2010). For AG Mohamed and Ondzotto (Mohamed, 2003 and Ondzotto, 2004), it is 2.7 to 19%. In French-speaking West Africa, the prevalence remains very variable: from 12% in Côte d'Ivoire to 1.4% in Senegal (Mohamed, 2009). In Guinea, seroprevalence was 1.7% ([http://files.unaids.org/en/dataanalysis/knowyourresponse/countryprogressreports/2012countries/ce\\_GN\\_Narrative\\_Report\[1\].pdf](http://files.unaids.org/en/dataanalysis/knowyourresponse/countryprogressreports/2012countries/ce_GN_Narrative_Report[1].pdf)).

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These ENT manifestations during HIV-AIDS infection can reveal the disease and deserve to be known to ENT. The aim of this study is to describe the epidemiological profile and the clinical aspects of these ENT and Cervico-facial manifestations, in the context of HIV-AIDS infection, in our context of tropical zone.

### MATERIALS AND METHODS

This is a descriptive prospective study lasting six months (July to December 2012). It focused on all HIV patients hospitalized in the ENT, Infectious and Tropical Diseases and Dermatology - Venerology departments of the Donka National Hospital (HND) in Conakry. During this period, 572 patients were followed, of whom 131 presented ENT manifestations. Retroviral serology was positive by the ELISA method in all patients.

**Table 1. Distribution of ENT pathologies encountered in patients**

ENT diseases	Number of cases	%
Oral cavity and pharynx		
• Candidiasis	118	90
• Labial herpes	19	14,5
• Gingivostomatitis	2	1,52
• Kaposi Disease	7	5,34
• Hairy leukoplakia of the tongue	4	3,05
• Tonsillitis	10	7,63
• Tumeur du cavum	1	0,76
Sinonasal		
• Rhinitis	33	25,19
• Sinusitis	5	3,81
• Epistaxis	1	0,76
Otologic		
• Acute otitis media	7	5,34
• Chronic Otitis Media	1	0,76
• Otitis Serosa	1	0,76
• Otomycosis	1	0,76
• Cochlear Neuritis	1	0,76
Cervicofacial		
• Cervical Adenopathy	21	16,03
• Goiter	1	0,76
• Aural Zona	2	1,52
• Erosive and crusted lesions of the face	1	0,76

We conducted the interview and clinical ENT-cervicofacial and general examination of all patients. The data collected were epidemiological (age, sex, origin, risk factors), clinics (site of lesions, groups of pathologies) and evolutionary.

## RESULTS

Between July and December 2012, 572 HIV-positive patients were hospitalized in the services, of which 131 patients with ENT and Cervico-facial pathology were 22.9%. We noted a female predominance of 61.1% with a sex ratio of 0.6. The average age of patients was 37.35 years with extremes of 16 and 62 years. The 25 to 34 age group was the most represented at 29.7%. The housewives were the most represented with 28.2%, followed by traders with 20.6%. Married couples were more involved in 93 cases, ie 71%, followed by singles with 22.9% (n = 30). Our patients came from an urban area in 81.68% (n = 107) and rural in 18.32% (n = 24). HIV-1 infection was found in 130 patients (99.2%) and HIV-2 (0.8%). The involvement of the bucco-pharyngeal sphere was dominant with 42.74% (n = 56); followed by rhinosinus involvement in 29.77% (n = 39), then cervico-facial involvement 19.09% (n = 25) and otological 8.40% (n = 11). The clinical manifestations have been found polymorphous in our patients, who sometimes present two to several pathologies at the same time. The general signs found in patients were variable and nonspecific: clinical anemia (pallor of the conjunctiva) in 36 patients (27.4%), general impairment in 23.6% (n = 31), fever in 17, 5% (n = 23), weight loss in 12.2% (n = 16). Chest radiographs were performed in 101 patients (77.1%), ultrasonography in 17 patients (13%) and a tone audiogram in two patients (1.5%) which showed profound bilateral deafness in a patient. The CD4 count was performed in 37 patients (28.24%). The rate was below 350 in 33 out of 37 patients (89.2%)

## DISCUSSION

ENT and cervico-facial manifestations of HIV infection are frequent and polymorphic during the course of the disease.

They can be inaugural and constitute the mode of entry of the disease. Unfortunately, none of these ENT manifestations are specific to this virus. The role of the ENT practitioner becomes essential in the diagnosis and early management of this disease. However only serological examinations will confirm the diagnosis. ENT and cervico-facial manifestations during HIV infection occur in 40-70% of cases (Smith, 1991) We found 131 cases in six months in hospitalized HIV patients, a prevalence of 22.9%. AG Mohamed *et al.* (Mohamed, 2003). observed in Mali 19 cases in 3 months. Delbrouck C. *et al.* (Delbrouck, 2002), observed 100 seropositive patients between March 1996 and March 1998 at C.H.U. St. Peter of Brussels. E. Boko *et al.* (Boko, 2005), conducted their study of 45 HIV-positive patients consulted at Tokoin Teaching Hospital out of 23785 consultants 0.19% (1991-1995) and 65 at CHU Campus out of 8385 consultants 0.77% (1995-2000). Ndjolo A. al. (Ndjolo, 2004), observed 76 HIV-positive patients between September 2000 and June 2002 in the ENT departments of the city of Yaoundé (Cameroon). Florent Nzuzi Kawashi *et al.* (Kawashi, 2010), reported 52 HIV-positive patients from January to April 2009 at the ENT Department of Kinshasa General Hospital (Democratic Republic of Congo). This difference in frequency would result from the duration of the studies and the variety of methodological approaches.

In our study, female prevalence was observed with 61.1% and sex ratio of 0.6. Our results corroborate those of AG Mohamed *et al.* (Mohamed, 2003 and Ondzotto, 2004) and Florent Nzuzi Kawashi *et al.* (Kawashi, 2010), different from those of several other authors such as: G. Ondzotto *et al.* (Ondzotto, 2004), (51% men and 49% women), E. Boko *et al.* ([http://files.unaids.org/en/dataanalysis/knowyourresponse/countryprogressreports/2012countries/ce\\_GN\\_Narrative\\_Report\[1\].pdf](http://files.unaids.org/en/dataanalysis/knowyourresponse/countryprogressreports/2012countries/ce_GN_Narrative_Report[1].pdf)) (The sex ratio of 1.4 was in favor of men [26H / 19F]). The youngest patient in our series was 16 years old and the oldest 62 years old. G. Ondzotto (Ondzotto, 2004), found 9 months and 76 years. The occurrence of infection with HIV infection is highly variable, but most authors cited by G. Ondzotto (Ondzotto, 2004), agree that in Africa infection is early. In our study the mean age was 37.35 years old. Higher than E. Boko *et al.* (Boko, 2006), and G. Ondzotto *et al.* (Ondzotto, 2004), who reported average

ages of 33 years and  $34 \pm 4.8$  years, respectively. Less than that of Florent Nzuzi Kawashi *et al.* (Kawashi, 2010), who found an average age of  $40.55 \pm 13$  years. The 25 to 34 age group was the most represented at 29.7%. Our results corroborate those of A.G. Mohamed *et al.* (Mohamed, 2003), who report a peak for the age group of 20 to 34 years in women. But different from those of Florent Nzuzi Kawashi *et al.* (Ondzotto, 2009), then G. Ondzotto *et al.* (Ondzotto, 2004), who found age groups of 30-40 years and 30-49 years respectively (75.9%). In our study, housewives and shopkeepers were the most affected with 28.2% and 20.6% respectively.

This predominance could be explained by the lack of information, the low level of education, the low social level and the multi partnership that seems easily approved when it comes to men. The urban area of Conakry was cited in 81.7%. This is obvious because our study was conducted in Conakry. The majority of our patients 99.2% have HIV1 and 0.8% HIV2. Ondzotto *et al.* (2004), reported that HIV1 is found in 72.3% of cases. These results corroborate with the data in the literature, namely that HIV 1 is largely more prevalent in the world and at home with an HIV2 type found in West Africa. According to the seat of the pathologies, the oral and pharyngolaryngeal cavities were more affected, then come the nasosinus, the neck and the ear. Neoplastic lesions are part of the diagnostic criteria of AIDS. In addition to Kaposi's sarcoma 7 cases, we found a tonsillar lymphoma. Ondzotto *et al.* (Ondzotto, 2004), however, note that neck and ear locations are more common. Inflammatory and infectious manifestations were more important.

The pathologies are indeed polymorphic found in the two last stages of the disease. These main pathologies were represented by oropharyngeal and sometimes oesophageal candidiasis (90%), rhinitis (25.19%) and cervical lymphadenopathy (19.08%). Ondzotto *et al.* (Ondzotto, 2004), reported the following conditions: parotidosis (20.1%), peripheral facial palsy (15.4%), oropharyngeal candidiasis (14.6%), chronic sinusitis (14.2%) and ganglionic tuberculosis (11, 5%). The malignant diseases identified in 15 cases (6%) are represented by: lymphoma (7 cases), Kaposi's sarcoma (7 cases), squamous cell carcinoma (1 case). ENT pathologies encountered in the study by Delbrouck C. *et al.* (Delbrouck, 2002), are essentially serous otitis, perceptive deafness, fungal infections and chronic sinusitis. E. Boko *et al.* (Boko, 2005), found that the otological manifestations (46%) were dominated by peripheral facial palsies, buccopharyngolaryngeal manifestations (23%) by mycoses, nasosinus manifestations (18%) by pansinusitis. Cervical lymphadenopathy accounted for 13% of cases. Oral and oropharyngeal candidiasis was the most observed event (30.60% of cases), followed by peripheral facial paralysis (11.13%) and rhinosinusitis (10.58%). Parotid hypertrophies accounted for 8.23% of the pathologies and persistent cervical lymphadenopathy accounted for 7.05% of the cases. Kaposi's sarcoma and cervical ganglionic tuberculosis each accounted for 3.53% of cases in the study by Ndjolo A. *et al.* (Ndjolo, 2004).

The occurrence of these different pathologies is favored by immunosuppression. Only 37 patients (28.24%) had the CD4 count to guide and evaluate the treatment. Of these patients, 33 (89.19%) had a CD4 count of less than 350. The chest X-ray was performed in 98 patients (74.8%) and was contributive in 37.3%. In addition to local care in 117 patients performed by ENT, our patients benefited from cotrimoxazol prophylaxis with or without triple therapy according to the recommendations of the National AIDS Control Program.

## Conclusion

During HIV infection, ENT and cervico-facial pathologies are polymorphic. This study shows the presence of certain pathologies common to other specialties. She has identified some ENT pathologies that can even reveal the disease. For the otolaryngologist, given the difficulties of management of these chronic and recurrent pathologies, it suits him in the initial phase to think about performing a retroviral serology at the slightest doubt to make an early diagnosis.

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