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Full Length Research Paper

Prevalence of esophageal mycosis in HIV adult patients in a Department of Internal Medicine Abidjan (Côte d'Ivoire)

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Esophageal mycoses are recurrent in HIV infection and often constitute the sign of its evolution. This study aimed at assessing the prevalence of esophageal mycosis in HIV patients. This study was a retrospective one carried out from January 1st 2004 through December 31st 2011 in the Digestive Endoscopy Unit of the University Teaching Hospital of Treichville. It was based on the data contained in the records of all the HIV patients consulted over the study scope of time. Over 335 HIV patients, 174 had esophageal mycosis (52%). The sex-ratio was 0.8 and the average age 35± 5 years. We detected dysphagia in 18.5% of the cases, oropharyngeal mycosis in 18.5% of the cases and in 55% of the cases, esophageal mycosis was a fortuitous discovery. Amidst patients explored for oropharyngeal mycosis, 56.4% of them had an esophagus infection. Esophageal mycosis was classified grade III (44.8%). The HIV-1 serology represented 95.7% of the cases. *Candida albicans* was the only isolated pathogenic agent. The prevalence of esophageal candidiasis in HIV patients was high. The frequent infection of the esophagus in oropharyngeal mycosis suggests that it should be treated as esophageal mycosis in environments where oeso-gastro-duodenal fibroscopy is not accessible.

Key words: Oeso-gastro-duodenal fibroscopy, Esophageal mycosis, Candida Albicans, HIV/aids, Abidjan.

INTRODUCTION

HIV infection causes severe immunodeficiency state which encourages opportunistic infections of which the most recurrent are tuberculosis, cerebral toxoplasmosis, neuromeningitis cryptococcus and digestive mycosis (Kra et al., 2012; Olmos et al., 2005). Esophageal mycosis is the most frequent infection of the digestive system after oropharyngeal mycosis (Abgrall et al., 2001). The diagnostic is carried out with oeso-gastro-duodenal fibroscopy which advantage is to show the mycosis and permits some samplings for mycological confirmation (Olmos et al., 2005). But this test is not available in most of Sub-Saharan Africa health centers. Where it is available, its price is out of reach for most of the patients. These are the difficulties that could explain the scarcity of studies on esophageal mycosis in Sub-Saharan Africa and especially in Côte d'Ivoire. The objective of this study was to determine the prevalence of esophageal mycosis in HIV patients and describe its socio-demographic, endoscopic and mycological aspects at the Digestive Endoscopy Unit of the University Teaching Hospital of Treichville.

MATERIALS AND METHODS

This study was a retrospective transversal one carried out from January 1st 2004 through December 31st 2011 in

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Table 1. Demographic, clinical, serological, endoscopic data

Parameters		Effective	%
Demographic			
Average Age	35± 5 years		
Sex-ratio	0,8		
Esophageal mycosis symptoms			
Dysphagia		32	1 8,4%
Thoracic pains		14	8%
Lymphocytic Typing			
Buccal mycosis			
Rates of CD4>200/ mm3		25/32	78,1
Esophageal Mycosis			
Rates of CD4<200/ mm3		132/142	93
Endoscopic mycosis grades			
I	Micro mycosis clod	51	15,2
II	Micro clod	100	29,8
III	Fungal mat	150	44,8
IV	Mashed mycosis	34	10,2

the Digestive Endoscopy Unit of the University Teaching Hospital of Treichville Abidjan. It was based on the records of the files of all HIV patients who underwent an oeso-gastro-esophageal fibroscopy and a mycological sampling analyzed in the Parasitology and Mycology laboratory of the Medical Sciences Training and Research Unit of Abidjan. In this study, we excluded all the HIV negative patients who showed a digestive mycosis and all the HIV patients whose files were not complete.

RESULTS

Over 335 HIV patients who met the inclusion criteria, 174 displayed an esophageal mycosis (52%). The sex-ratio was 0.8 and the average age 35± 5 years. Oeso-gastro-duodenal fibroscopy enabled the fortuitous discovery of an esophageal mycosis in 55% of the cases. Functional signs of esophageal mycosis existed in 26.4% of the cases (dysphagia 18.4% and retrosternal pains 8%). In 18.4% of the cases oeso-gastro-duodenal fibroscopy was carried out as part of an oropharyngeal mycosis assessment. Amidst the 32 patients explored for an oropharyngeal mycosis, the esophagus was infected in 56.4% of the cases. Esophageal mycosis was classified as grade I in 15.2% of the cases, grade II in 29.8% of the cases, grade III in 44.8% of the cases and grade IV in 10.2% of the cases. The HIV serology was positive for HIV-1 in 95.7% of the cases, for HIV-2 in 3.7% and for both HIV in 0.6%. Patients with an isolated oropharyngeal mycosis had a rate of CD4 > 200/ mm^3 in 78.1% of the cases and those with isolated esophageal mycosis or oropharyngeal mycosis a rate of CD4 < 200 /mm^3 in 93% of the cases. The mycological study was contributive with 320 patients (95.5%). *Candida albicans* was the only pathogenic agent found (100%)

DISCUSSION

The prevalence of esophageal mycosis with HIV patients in our study was 52%. This rate is alike the rate contained if the literature (Kra et al., 2012; Datoucha et al., 2001). Esophageal mycosis is the most recurrent digestive mycosis with HIV infected population after oropharyngeal mycosis (Butt et al., 2001). It is said that between 80% and 90% of HIV patients will develop this pathology over the evolution of the disease (Abgrall et al., 2001; Ranganathan et al., 2006). Most of the patients were female adults with an average age of 35± 5 years (table I) confirming thus the epidemiological data on aids (Kra et al., 2005). Esophageal mycosis symptoms were classical (Datoucha et al., 2001; Abgrall et al., 2001). There were dysphagia and retro-sternal thoracic pains (table 1). Amidst the patients explored for oropharyngeal mycosis, the esophagus of 56.4% of them was infected. The recurrent infection of the esophagus in oropharyngeal mycosis which diagnostics is essentially clinical suggest that it should be treated like oesophageal mycosis in an environment where oesogastroduodenal fibroscopy is not accessible. In 55% of cases, oesophageal mycosis was a fortuitous discovery. This high rate demonstrates the interest of high digestive endoscopy in the coverage of HIV infected patients but also the interest of a presumptive treatment with those patients. Most of the patients displayed severe oesophageal mycosis (table 1) as in the study carried out

in Togo due to diagnostic delay (Datoucha et al., 2001). Concerning HIV serology 95.7% of the cases studied were positive to HIV-1 and 3.7% were positive to HIV-2. These rates confirm the distribution of HIV serotypes in Sub-Saharan Africa (Kra et al., 2005). Patients displaying an isolated oropharyngeal mycosis had a rate of CD4 > 200/ mm^3 in 78.1% of the cases and those displaying an esophageal mycosis a rate of CD4 < 200 /mm^3 in 93% of cases (table 1). These results consolidate the thesis which states that deep mycosis occurs only in case of deep immunodeficiency suggesting thus the indication of combination therapy for such patients (Olmos et al., 2005).

Once mycosis is mentioned and the endoscopy is taken, the confirmation diagnostics is undertaken after the culture on Sabouraud-chloramphenicol sampling environment (Abgrall et al., 2001; Datouda et al., 2001). Despite the endoscopic aspect rather suggestive of esophageal mycosis, the mycological study was contributive at 95.5%. In case of negative culture, the presence of oropharyngeal mycosis is an important orientation element. Candida albicans was the only pathogenic agent observed in our study. In the literature, it is also the most recurrent with its rates comprised between 80 and 100% (Datouda et al., 2001; Olmos et al., 2005).

CONCLUSION

The prevalence of esophageal mycosis with HIV patients is important in our study. There are mostly young female adults. The recurrent infection of the esophagus of fortuitous discovery most of the time at high digestive endoscopy encourages the systematic practice of this test with HIV patients. The recurrent infection of the esophagus of buccal mycosis of essentially clinical diagnostics suggests that these should be treated as esophageal mycosis in an environment where eso-gastro-duodenal fibroscopy is not accessible.

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