



ORIGINAL RESEARCH PAPER

Internal Medicine

OPPORTUNISTIC INFECTIONS DIAGNOSED IN PATIENTS INFECTED WITH THE HUMAN IMMUNODEFICIENCY VIRUS (HIV) AT THE SERVICE OF INFECTIOUS DISEASES OF UHC (UNIVERSITY HOSPITAL CENTER) YALGADO OUEDRAOGO, BURKINA FASO

KEY WORDS: opportunistic infections, patients living with HIV, AIDS, Burkina Faso.

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ABSTRACT

Introduction: Sub-Saharan Africa remains one of the regions most affected by HIV infection with severe lethality. Most deaths of patients living with HIV are caused by opportunistic infections.
Objective: to determine the prevalence of opportunistic infections among patients living with HIV in hospital serving infectious diseases of UHCYO of Ouagadougou.
Patients and Methods: This is a cross-sectional descriptive study covering a 14-month period from 1 January 2017 to 28 February 2018. Included were all HIV-positive patients, hospitalized at the service of Infectious Diseases, in which an opportunistic infection was diagnosed on the basis of clinical and/or para-clinical arguments.
Results: During the study period a total of 55 patients living with HIV were hospitalized in the infectious disease unit, 35 of whom had at least one opportunistic infection or 63.6% of the patients. The average age of patients was 37 years with extremes of 18 and 66 years. Twenty-two patients were female versus 13 male, a sex ratio = 0.59. HIV1 was involved in 97% of patients. The mean TCD4 lymphocyte rate was 156 cell/mm³ with extremes of 7 and 718 cell/mm³. Tuberculosis and digestive mycosis were the most frequently diagnosed opportunistic infections. Opportunistic infection was the circumstance for HIV testing in two patients. She revealed immune restoration syndrome in two other patients. Nineteen patients were already on antiretroviral treatment upon admission to the service. Half of the patients on treatment were in therapeutic failure. The evolution was marked by 26.5% lethality.
Conclusion: The frequency of opportunistic infections is high in patients living with HIV. Their prevention requires early detection of HIV infection and antiretroviral treatment.

INTRODUCTION

Sub-Saharan Africa remains one of the regions most affected by HIV/AIDS [1]. The advent of powerful antiretrovirals has reduced the incidence and mortality of opportunistic infections [2, 14, and 21]. But many patients are still suffering from these infections either because they do not have access to antiretrovirals (ARVs), either through poor adherence to said treatment or because they develop immune restoration syndromes despite effective antiretroviral therapy [3,14,19]. Most deaths during HIV infection are due to direct or indirect complications of opportunistic infections [17]. In Burkina Faso Bamba et al had previously reported a high prevalence of opportunistic mycosis infections in PsvIH [18]. The objective of this study is to determine the prevalence of opportunistic infections among PsvIH hospitalized for infectious diseases at CHUYO in Ouagadougou.

MATERIALS AND METHODS

The Department of Infectious Diseases is one of the departments of the Yalgado Ouédraogo University Hospital, responsible for the management of patients living with HIV.

This is a cross-sectional descriptive study covering a period of 14 months from 1 January 2017 to 28 February 2018. All HIV+ patients hospitalized in the service of Infectious Diseases in which an opportunistic infection has been diagnosed from clinical and/or paraclinical arguments have been included. The classification of HIV infection was that of the WHO. Data entry and analysis was done using the EPI info 2000 software.

RESULTS

During the study period a total of 55 patients living with HIV were hospitalized, 35 of whom had opportunistic infection, or 63.6% of the patients. The average age of cases was 37 years with extremes ranging from 18 to 66 years. Twenty-two patients were female versus thirteen males, a sex ratio = 0.59. HIV1 was involved in 97% of patients. The TCD4 lymphocyte assay was measured in 14 patients. The mean TCD4 lymphocyte level was 156 cell/mm³ (7-718). Two

opportunistic infections (one case of bacilliferous tuberculosis and one case of cutaneous Kaposi) revealed immune restoration syndrome. Two patients were screened during hospitalization; they were all at stage IV of the WHO classification.

The frequent reasons for consultation were altered general condition (16 patients) and gastroenteritis (11 patients). The opportunistic infections diagnosed are presented in Table 1. The average length of hospitalization was 23 days (1-92). 19 patients were on antiretroviral treatment, nine of whom had failed therapy. The evolution was marked by 26.5% lethality.

Table 1: Distribution Of Opportunistic Infections Diagnosed

Infections opportunistes	Number	%
Tuberculosis	12	28
Digestive candidiasis	9	21
Cerebral toxoplasmosis	3	7
Kaposi disease	3	7
Isosporoses	2	5
Cryptosporidiosis	2	5
Shingles	2	5
Herpes	2	5
Lymphomas	2	5
Neuro meningeal cryptococcosis	1	2

NB: Seven patients had several opportunistic infections at a time.

DISCUSSION

Despite improved access to antiretrovirals (ARVs) [5], patients living with HIV are still exposed to opportunistic infections. With a prevalence of 63.6%, opportunistic infections remain a frequent reason for hospitalization of patients living with HIV in the Infectious Diseases Unit. This prevalence is lower than in the Kenyan study [16]. Young women predominated in our series as well as in several African series and elsewhere [5, 6, 7,8]. The low socio-economic status of women increases women's vulnerability to

HIV infection [1]. In our study, as in most African series, opportunistic infections were dominated by tuberculosis [7, 8,9]. Our results support literature data that HIV infection is the most important risk factor for active tuberculosis [11,12,15,20]. As in the study of Bamba et al. in our study, digestive candidiasis came after tuberculosis in terms of frequency. These candidiasis were dominated by esophageal locations [11,18]. The same observation was made by Charles, who further found that opportunistic infections occurred mainly in patients who were naive to antiretroviral treatment, or in therapeutic failure [10]. Three cases of toxoplasmosis were diagnosed in our study. This infection is the most common and fatal opportunistic neurological infections during AIDS with cryptococcal disease and meningial tuberculosis [6,15,20]. In the Balogou et al. series, toxoplasmosis was the leading cause of death from neurological conditions during AIDS [6]. It is due to a reactivation of *Toxoplasma gondii* during severe immunosuppression [13,15]. One case of Kaposi's sarcoma revealed immune restoration syndrome, corroborating Breton's findings [3]. Indeed, the HIV/AIDS epidemic made Kaposi's sarcoma, the most common cancer [11]. Lethality in the study was 26.5%. This rate was lower compared to the Ouédraogo series [8]. This downward trend in lethality appears to reflect an improvement in the management of patients living with HIV [21].

CONCLUSION

The frequency of opportunistic infections is still high during HIV infection in the era of highly active antiretroviral therapy. They occur in severely immunocompromised patients, either naive of antiretroviral therapy or in therapeutic failure. They remain one of the modalities of discovery of HIV infection. Strategies to reduce their morbidity and mortality must combine chemoprophylaxis against these infections, early diagnosis of HIV infection and appropriate antiretroviral therapy.

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