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HIV Seropositivity among Adult Nigerians with Psychiatric Morbidity

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Abstract: A significantly higher prevalence of current mental disorders has been found in both asymptomatic and symptomatic Human Immunodeficiency Virus (HIV) seropositive persons compared with seronegative controls. On the other hand, psychiatric illnesses are often characterized by behaviours that put patients at risk of being HIV infected. This study was aimed at determining the prevalence of HIV seropositivity among patients with psychiatric morbidity presenting at the University of Port Harcourt Teaching Hospital (UPTH) and to see how this rate compares with that of the general population. All psychiatric patients presenting at the Neuropsychiatry Out-patient Clinics and the Accident and Emergency department of the University of Port Harcourt Teaching Hospital between January 2002 and December 2004 were prospectively studied. Full case history was obtained and a detailed mental and physical examination was carried out on each patient within 48 h of presentation. Each patient was also screened routinely for seropositivity to HIV I and II after counseling. One thousand three hundred and twenty five psychiatric cases were evaluated over the study period. A total of 74 of these individuals (39 males and 35 females) were found to be seropositive to HIV-67(90.5%) for HIV 1 and 2 while the other 7(9.5%) for only HIV 1. The prevalence of HIV seropositivity for this population was thus 5.58%. A higher proportion, 52(70.3%) of the HIV seropositive patients were under the age of 40 years. The three most frequent psychiatric diagnoses among the seropositive patients was substance abuse disorder, moderate to severe depression with psychotic features and organic mental disorder. The study population's HIV seropositive prevalence of 5.58% is comparable to the national prevalence of 5.8% as at the time of this study.

Key words: HIV, seroposivity, adult, psychiatris morbidity, UPTH

INTRODUCTION

Psychiatric disease is a frequent complication of the Human Immunodeficiency Virus (HIV) infection. A significantly higher prevalence of current mental disorders has been found in both asymptomatic and symptomatic seropositive persons compared with seronegative controls (Maj *et al*., 1994; Brown *et al*., 1992). Epidemiological studies have demonstrated that Human Immunodeficiency Virus (HIV) infection is associated with higher rates of several psychological and psychiatric disorders when compared to general population base rates. There is also a rich literature that has documented the adverse neurocognitive effects of HIV infection, ranging from subtle cognitive complaints to frank dementia, among younger adults (Hinkin *et al*., 2001). Schizophrenic psychosis, major depression, affective disorders, phobia and drug addiction frequently occurs among others in patients with HIV infection and Acquired Immunodeficiency Syndrome (AIDS). Such patients experience a lot of psycho-social difficulties and may present first to the psychiatrist. Furthermore, Highly Active Antiretroviral Therapy (HAART) can provoke psychiatric illness in HIV-infected patients (Foster *et al*., 2003).

On the other hand, psychiatric illnesses are often characterized by behaviours that put patients at risk of being HIV infected (Cournos *et al*., 2005). For example bipolar disorders are characterized by increased energy, rapid thinking, euphoria or irritability, grandiosity and increased participation in activities that may involve a potential for adverse effects (spending too much, sexual indiscretions, drug abuse). At risk behaviours like sharing of needles and sexual promiscuity are frequently encountered in other psychiatric conditions for example injection drug users. Sexual transmission and related sex behaviours, including exchange of sex for drugs or money, have been independently associated with injection and non-injection drug use (Windle, 1997; Zhao *et al*., 2006).

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This study was aimed at determining the prevalence of HIV seropositivity among patients with psychiatric morbidity presenting at the University of Port Harcourt Teaching Hospital (UPTH) and to see how this rate compares with that of the general population.

MATERIALS AND METHODS

All psychiatric patients presenting at the Neuropsychiatry Out-patient Clinics and the Accident and Emergency department of the University of Port Harcourt Teaching Hospital between January 2002 and December 2004 were prospectively studied. The University of Port Harcourt Teaching Hospital is the main referral centre for the city of Port Harcourt. Port Harcourt is the administrative headquarters of Rivers State and is located in the centre of the Niger delta basin of Nigeria.

Full case history including socio-demographic parameters was obtained and a detailed mental and physical examination was carried out on each patient within 48 h of presentation by a Neuropsychiatrist (S.P.C). Classification of the psychiatric disorders was based on the American Psychiatric Association Diagnostic and Statistical Manual (DSM IV) (APA, 2000).

Each patient was also screened routinely for seropositivity to HIV I and II after counseling and obtaining consent of patients who had insight or reliable relations for those without insight. Patients who were found to be seropositive for HIV 1 and/or 2 were subsequently commenced on antiretroviral therapy where appropriate, after routine investigations in collaboration with the department of heamatology.

RESULTS

One thousand three hundred and twenty five psychiatric cases were evaluated over the study period. A total of 74 of these individuals (39 males and 35 females) were found to be seropositive to HIV -67(90.5%) for HIV 1 and 2 while the other 7(9.5%) for only HIV 1. The prevalence of HIV seropositivity for this population was thus 5.58% .The overtly psychotic patients were informed of their status after they had gained insight. 3(4.1%) of the HIV seropositive patients admitted prior knowledge of their status while the other 71(95.9%) had either not been screened before or did not know their status prior to presentation.

The age-sex distribution of the HIV seropositive patients is as shown in Table 1. Thirty seven (50%) of them were single, 16(21.6%) were married while the other 21(28.4%) were divourced. The most frequent occupational group was commercial sex workers, with 14(18.92%) patients. This was followed by commercial drivers/ motor park workers (16.22%), businessmen/ women (12.16%). The distribution of the other occupations is as shown in Table 2.

Table 1: Age-sex distribution of HIV seropositive psychiatric patients

Age group (years)	Male N (%)	Female N (%)	Total N (%)
< 15	-	-	0
16-21	-	3(100)	3(4)
22-27	8(42.1)	11(57.9)	19(25.7)
28-33	8(47.1)	9(52.9)	17(23)
34-39	8(61.5)	5(38.5)	13(17.6)
40-45	5(62.5)	3(37.5)	8(10.8)
46-51	4(66.7)	2(33.3)	6(8.1)
52-57	4(0.8)	1(0.2)	5(6.8)
> 58	2(66.7)	1(33.3)	3(4)
Total	39(52.7)	35(47.3)	74(100)

Table 2: Occupational distribution of HIV seropositive psychiatric patients

Occupation	No of patients	(%)
Lecturing	4	5.4
Oil sector workers	6	8.1
Civil servants	6	8.1
Businessmen/women	9	12.2
Banking	6	8.1
Students	8	10.8
Commercial sex workers	14	18.9
Unemployed	9	12.2
Commercial drivers/motor park attendants	12	16.2
Total	74	100

Table 3: Distribution of psychiatric diagnosis among HIV seropositive patients

Diagnosis	No of patients N (%)	Rank order
Substance abuse disorder	15(20.3)	1
Moderate to severe depression with psychotic features	14(18.9)	2
Organic mental disorders	12(16.2)	3
Anxiety disorders	11(14.9)	4
Manic depressive illness	9(12.2)	5
Schizophrenia	7(9.5)	6
Unipolar mania	3(4)	7
Acute reactive psychosis	3(4)	7
Total	74(100)	

The three most frequent psychiatric diagnoses among the seropositive patients was substance abuse disorder, moderate to severe depression with psychotic features and organic mental disorder (Table 3).

DISCUSSION

Psychiatric disease is a frequent complication of HIV-infection. Thus a high index of suspicion is required as patients with HIV infection can present first at the psychiatric clinic. The Human Immunodeficiency Virus (HIV) infection is associated with psychiatric complications like cognitive impairment, affective disorders and psychosis (Maj *et al*., 1994). These psychiatric complications impair quality of life, affect disease prognosis and impede treatment by compromising

medication adherence. They also increase the likelihood of HIV transmission, as they affect the ability of the patients to comprehend and carry out the necessary behavioural change to curtail the spread of the infection.

The study population's HIV seropositive prevalence of 5.58% is comparable to the national prevalence of 5.8% as at the time of this study (FMH, 2003). Furthermore, a higher proportion, 52(70.3%) of the HIV seropositive patients were under the age of 40 years. This is in keeping with findings in the general population and has been attributed to early exposure to the virus via heterosexual mode of transmission especially for females (Iliyasu *et al*., 2005).

Not surprising is the fact that commercial sex work, commercial driving and motor park attendants constituted the higher bulk of the HIV seropositive patients. These occupational groups are known to be highly at risk for HIV infection (Ekanem *et al*., 2005). In addition, the prevalence of substance abuse is disproportional higher in these group compared to the general population (Stanekova *et al*., 2004).

The most frequent mental disorder seen among the HIV seropositive patients was substance abuse (20.3% of the patients). This was followed by depression with psychosis, organic mental disorders and anxiety disorders in that order (Table 3). A similarly high rate (50%) of substance abuse disorder, most commonly cannabis abuse and alcohol abuse was found amongs HIV/AIDS patients in Canada (Chung *et al*., 1992). In this series, AIDS patients were also more likely to suffer from organic mental disorder. A higher incidence of affective disorders compared to schizophrenia spectrum disorders have also been reported in HIV seopositive patients (Blank *et al*., 2002; Atkinson, 1997). This has been attributed to both biological factors and psychological forces. HIV infection is associated with a lethal multisystem illness related to profound immune dysregulation. The illness involves the Central Nervous System (CNS) shortly after infection and leads to substantial neurocognitive impairment even in the absence of other physical evidence of disease. Psychological forces at work include social stigimitization of unparalleled proportion for the modern era, combined with bereavements of epidemic proportions (Atkinson, 1994). However, affective disorders are often already present before HIV infection in "high risk groups" (Bourgeois *et al*., 1989).

There is a need for a high index of suspicion amongst mental health practitioners for diagnosing HIV and AIDS related conditions in psychiatric patients. Mental ilneses can run a rapidly progressing course in the presence of HIV/AIDS comorbidity (Nang *et al*., 2005). There is also a need to consider the increasing risk of HIV infection among chronic mentally ill patients in institutions in addition to the traditional risk of infection with other diseases like tuberculosis and viral hepatitis.

In view of the higher incidence of risk taking behaviours in population of patients presenting at mental health services, HIV/AIDS prevention interventions that are tailored to the needs and priorities of people with mental illnesses are urgently needed. Against a background of escalating rates of HIV, STIs and high risk-taking behaviours among young people, it is essential that mental health staffs are provided with the skills and education to address sexual health and harm minimization issues (Shield *et al*., 2005). This study has also demonstrated the fact that mental health services can serve as avenue for provision of HIV/ AIDS screening and counseling services.

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