Clinical and Epidemiological Characteristics of Adult and Adolescent Patients Newly Diagnosed with the Human Immunodeficiency Virus at a Jamaican Clinic for Sexually Transmitted Infections

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ABSTRACT

Persons infected with the human immunodeficiency virus (HIV) may have protean clinical manifestations. These characteristics have not been described for adult patients in Jamaica. This study was conducted to determine the clinical and epidemiological characteristics of adult and adolescent persons newly diagnosed with HIV presenting at a specialized clinic for sexually transmitted infections (STI). A retrospective analysis of the medical records of adult and adolescent patients newly diagnosed with HIV was undertaken over a 12-month period. The results showed that most patients (64%) were between 20 and 39 years old (age range 14–68 years, M:F ratio 1.4: 1). Heterosexual practice was admitted to by 77% of patients. At the time of presentation most patients (53%) were asymptomatic while 24% had some symptoms and 21% had acquired immunodeficiency syndrome (AIDS). The most common presentation was generalized lymphadenopathy (67%) which was significantly higher than skin rash (27%), oral candidiasis (24%), cough (24%), weight loss (24%) and pallor of mucous membranes (19%, $p < 0.001$). This study affirms that young people account for the majority of new cases of HIV infection. The heterosexual route was the predominant mode of transmission. Generalized lymphadenopathy was the commonest presenting feature of persons newly diagnosed with HIV infection.

Características Clínicas y Epidemiológicas de los Pacientes Adultos y Adolescentes Diagnosticados Recientemente con el Virus de la Inmunodeficiencia Humana en una Clínica Jamaicana Para Infecciones de Transmisión Sexual

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RESUMEN

Las personas infectadas con el virus de la inmunodeficiencia humana (VIH) pueden presentar manifestaciones clínicas proteicas. Estas características no han sido descritas en relación con pacientes adultos en Jamaica. Este estudio se llevó a cabo con el propósito de determinar las características clínicas y epidemiológicas de personas adultas y adolescentes diagnosticadas recientemente con VIH, quienes acudieron a una clínica especializada en infecciones de transmisión sexual (ITS). Por espacio de 12 meses, se llevó a cabo un análisis retrospectivo de los archivos médicos de pacientes adultos y adolescentes recientemente diagnosticados con VIH. Los resultados mostraron que la mayoría de los pacientes (64%) tenían entre 20 y 39 años de edad (rango de edad 14-68, ratio M:F igual a 1.4: 1). El 77% de los pacientes dijo ser heterosexual. En el momento de manifestación, la mayoría de los pacientes (53%) eran asintomáticos, mientras que el 24% tenía algunos síntomas, y el 21% había adquirido el síndrome de la inmunodeficiencia (SIDA). La manifestación más común fue la linfadenopatía generalizada (67%), que fue significativamente más alta que la erupción cutánea (27%), la candidiasis oral (24%), la tos (24%), la pérdida de peso (24%) y la palidez de las membranas mucosas (19%) ($p < 0.001$). Este estudio afirma que la mayoría de los nuevos casos de infección de VIH esta constituida por personas jóvenes. La ruta heterosexual era el modo predominante de transmisión. La

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INTRODUCTION

The number of persons infected with the human immunodeficiency virus (HIV) in Jamaica continues to increase since the first reported local case in 1982 (1). Clinicians are therefore now more likely to see persons presenting with signs and symptoms of the effects of the virus. Infection with HIV has protean manifestations and virtually all systems of the body may be affected (2, 3). The symptoms and signs vary with the natural course of the disease process from being asymptomatic with normal examination findings to severe complications, as may occur with acquired immunodeficiency syndrome (AIDS) (4).

After infection with HIV, some persons develop acute (primary) HIV infection which is characterized by fever, lymphadenopathy, pharyngitis and skin rash (5–7). This is followed by a period of clinical latency for many years during which individuals will have no symptoms. Primary care physicians should be alert to certain clinical conditions that may be suggestive of undiagnosed HIV infection. These conditions include mononucleosis-like syndromes, unexlained lymphadenopathy, fever of unknown origin, chronic fatigue, unexplained weight loss, chronic diarrhoea and unexplained dementia (8, 9).

Establishing the clinical characteristics of patients is important to determine their health status for HIV and non-HIV related medical conditions as well as for disease staging (10–12). The stage of HIV disease will determine the prognosis and the scope for timely preventive and therapeutic medical interventions, especially for opportunistic infections.

While there are reports on HIV clinical manifestations from other countries, there are no similar reports about adult Jamaican patients with HIV (13–15). This study was therefore conducted to investigate the clinical and epidemiological findings of adult and adolescent persons newly diagnosed with HIV infection in Jamaica.

SUBJECTS AND METHODS

A retrospective analysis of the medical records of all adult and adolescent patients (13 years and older) serologically diagnosed with HIV infection over a 12-month period (April 1998 to March 1999) was undertaken at the Comprehensive Health Centre (CHC), a facility offering specialized services for STI/HIV in Kingston, Jamaica. These patients include walk-ins, referrals and contacts to known persons with STI/HIV. All patients were being diagnosed for the first time with HIV infection. There were 135 medical records available, of which 10 were excluded due to incomplete data. Data collected included sociodemographic variables (age, gender, condom use, number of sexual partners and sexual orientation), presenting complaints and medical examination findings from the medical record of each of the 125 patients. Only the clinical characteristics present at the time of diagnosis, taken to be the date on which HIV test was requested, were included.

HIV testing at the CHC is voluntary and routine pretest and post-test counselling are offered. The clinical profile of each patient was evaluated using the three clinical categories proposed by the Centers for Disease Control and Prevention (16). Persons were assigned to clinical category A if they were asymptomatic, had persistent generalized lymphadenopathy or acute primary illness; category C if they had AIDS conditions such as wasting syndrome, cerebral toxoplasmosis or oesophageal candidiasis and category B if symptomatic, not category A or C conditions.

An enzyme immunoassay (EIA, Abbott Diagnostic Laboratories, Abbott Park, IL, USA) was used for screening for antibodies to HIV, and positive results were confirmed with the Western immunoblot technique (Dupont, Wilmington, DL, USA).

The computer software package Epi Info (version 6.04, Centers for Disease Control and Prevention, USA) was used for data entry and analysis. A p value ≤ 0.05 was considered statistically significant.

RESULTS

The medical records of a total of 125 persons who were positive for HIV antibody by ELISA and Western blot were analyzed. There were 72 males (58%) and 53 females (42%) with a male to female ratio of 1.4: 1 (Table1). The age ranges were from 14 to 68 years. More than 63% of patients were between 20 and 39 years of age, 7% were less than 19 years and 28% above 40 years of age. Among the 20 to 39 age group, most persons were males (56%). Female patients on average were younger (mean age = 31 years, SD ± 4.6) than males (mean age = 37 years, SD ± 8.8) though not statistically significantly.

Heterosexual practice was admitted to by 95 (76%) patients while six (5%) acknowledged homosexual/bisexual practice. Seventeen per cent reported having previous STIs and 16% indicated having had sex with prostitutes. Some 11% of patients were tested as sexual contacts to known HIV individuals.

Table 1 shows the epidemiological characteristics of the patients newly diagnosed with HIV infection. Many patients (43%) reported using condoms less than half the times, 16% more than half the times, and 20% never used a condom during sexual encounters. During the last three months prior to diagnosis, most persons (85%) had sexual intercourse, of whom 10% of these persons had multiple sex partners (Table 1). Males (10/36, 28%) were significantly more likely to have multiple partners than females (2/31, 6%) ($p = 0.01$). The mean number of sex partners during the last

Table 1: Epidemiological characteristics of patients newly diagnosed with HIV infection

Variable	Frequency	%
Age (years)		
13–19	9	7
20–29	45	36
30–39	34	27
≥ 40	35	28
unknown	2	2
Gender		
Male	72	58
Female	53	42
Condom use		
> ½ times	20	16
< ½ times	54	43
Never	25	20
unknown	26	21
No of sexual partners (in last 3 months)		
0	19	15
1	36	29
2	9	7
3	2	2
4	1	1
unknown	58	46
Transmission category		
Homosexual/bisexual	6	5
Heterosexual	95	76
unknown	24	19

three months before diagnosis for males was two (range, 1–4), compared to one for females (range, 1–2).

Of the 125 patients, 67 (53%) were assessed as being HIV asymptomatic (category A), 30 (24%) were HIV symptomatic (category B) and 26 (21%) had AIDS (category C). The common clinical characteristics among patients at time of diagnosis in decreasing order of frequency are shown in Table 2. The most common presentation was generalized lymphadenopathy (67%) which was significantly higher than skin rash (27%), oral candidiasis (24%), cough (24%), weight loss (24%) and pallor of mucous membranes (19%) ($p < 0.001$). There were no significant age or gender differences in the frequency of occurrence of these features.

DISCUSSION

The results of this study indicate that young people between the ages of 20 and 39 years account for the majority of infections with HIV. Given the long incubation period of HIV, these persons may have acquired the virus during the adolescent period. This reinforces the need to target youths, who are at the "front end" of the epidemic, with HIV prevention strategies (17). Heterosexual intercourse was the predominant mode of transmitting HIV in this study and more men than women were infected. The above findings are comparable to national and global trends (19–20).

Table 2: Clinical features of patients at the time of diagnosis with HIV infection

Variable	Frequency	%
Symptoms		
Skin rash	34	27
Cough	30	24
Weight loss	30	24
Generalized pruritus	21	17
Anorexia	15	12
Generalized weakness	13	10
Diarrhoea	11	9
Dyspnoea	11	9
Night sweats	9	7
Signs		
Generalized lymphadenopathy	84	67
Pallor of mucous membranes	24	19
Oral candidiasis	30	24
Genital ulcer	21	17

The greater age of males than of females present in this study highlights the predominant role men play in fuelling the current HIV/AIDS epidemic. The practice of older men having sexual intercourse with younger female partners is believed to be a major contributor to the spread of HIV (18).

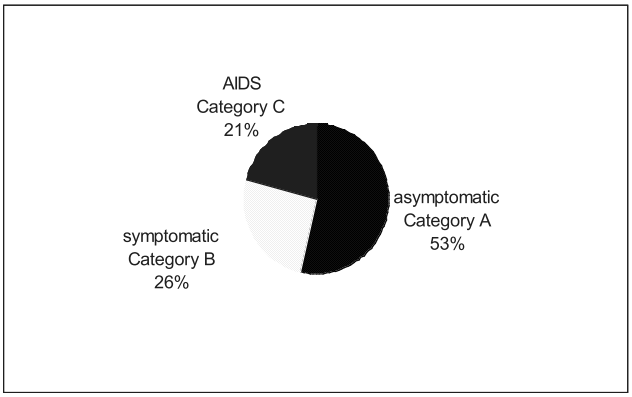

Figure: Clinical categories according to symptom profile.

It was with this emphasis on men that "Men make a difference" was chosen as the title of the Joint United Nations Programme on HIV/AIDS (UNAIDS) World AIDS Campaign in the year 2000 (17). Younger women are often at risk because they lack power in sexual decision-making, while men are expected to be strong, daring and virile (17, 18). Men should be encouraged to transform their harmful concepts of masculinity into useful potentials engaged in the fight against HIV/AIDS.

The time at which individuals seek to ascertain their HIV status or access medical care for HIV influences the clinical spectrum seen at the initial evaluation. Forty-two per cent of patients presented at a stage with HIV related symptoms or full blown AIDS. The spectrum of HIV disease

varies with host, environmental and clinical factors and it is believed that there is considerable variation of the spectrum in developing countries from that of industrialized countries (13). Patients in Africa appear to have more weight loss, skin problems and Kaposi's sarcoma, while persistent generalized lymphadenopathy and respiratory features are reported to predominate in western countries (14, 15). With the exception of Kaposi's sarcoma, this study finds features of both the above dichotomy, which may be as a result of the predominantly African origin of the Jamaican population. The finding that generalized lymphadenopathy was the most common feature (67%) in this study is similar to another report of 71% in a cohort of men in the USA (21). Generalized lymphadenopathy is however a nonspecific finding and may be seen in other infections such as infectious mononucleosis, syphilis and toxoplasmosis. As most HIV-infected persons experience some form of dermatologic disorder during the course of their disease (22, 23) it was no surprise to find that skin rash was the second commonest feature in this study.

The clinical contribution of adolescents was not clearly differentiated in this study because of the very small numbers involved. In addition, incomplete data due to the retrospective design of this study was another limitation. However, the overall findings of this study provide a significant clinical description of HIV-infected adults at the time of diagnosis in Jamaica and will serve to increase local physicians' awareness.

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