HTLV-I and HTLV-II in Africans

Human T-cell lymphotrophic virus type I (HTLV-I) is the aetiological agent of adult T-cell leukemia (ATL) and tropical spastic paraparesis/HTLV-associated myelopathy (TSP/HAM). It is endemic in Japan, the Caribbean basin and Africa. Unlike HTLV-I, HTLV-II, a closely related retrovirus, has not been formally linked with any disease and its epidemiology has not been established yet. HTLV-II has been observed in a high prevalence among US and European injecting drug users, and among certain American tribes. A number of studies have pointed out that HTLV-I is widespread in Africa and HTLV-II is also present but with a lower prevalence in that continent.1

In a previous report,2 we pointed that misdiagnosis of HTLV-II can be frequent using HTLV-I viral lysate screening assays. More recently, Weiss3 noticed this phenomenon testing intravenous drug addicts from New Jersey (USA). In this form, HTLV-II seroprevalence in Africans could be under-diagnosed.

An option to avoid false negative results for HTLV-II infection could be to add either an HTLV-II viral lysate or specific recombinant or synthetic HTLV-II antigens to the previous HTLV-I screening assays. In our own experience in Spain, testing samples from African immigrants with these new tests, we found an unexpected high prevalence of HTLV-II infection. We used two ELISAs, one of which uses specific envelope synthetic peptides from both HTLV-I and HTLV-II (HTLV I+2 Biokit, Barcelona, Spain), and the other which incorporates synthetic peptides from p19 and gp46 of each virus (HTLV-I+II Biochrom, Berlin, Germany). Reactive sera were confirmed by Western blot (Diagnostic Biotechnology Ltd. HTLV-2-3, Singapore) which incorporates different specific synthetic peptides and recombinant proteins for both HTLV-I and HTLV-II. Testing 540 sera from subjects coming from Central and West African countries, we found two HTLV-I-infected individuals (one from Mali and other from Equatorial Guinea), and 4 HTLV-II asymptomatic carriers, coming from Equatorial Guinea, Liberia, Sierra Leone, and Cameroon, respectively. The last one was additionally infected with HIV-2. All HTLV-II carriers but one were men, and none reported intravenous drug addiction practices or blood transfusions. However, all of them reported multiple sexual partners in the past.

Our results support the finding that both HTLV-I and HTLV-II are present in Africa. The relative proportion of each infection needs to be analysed using screening assays showing adequate accuracy for both viruses.

Use of an inpatient HIV unit by injecting drug users

Injecting drug users are commonly perceived to be difficult to manage on inpatient wards. To investigate this, we examined the case notes of all injecting drug users (IDUs) admitted to the Middlesex Hospital inpatient HIV unit between January 1990 and June 1992, and compared them with randomly selected, non-drug using controls. There were 428 patients admitted, of whom 37 were IDUs, and we selected 37 controls by systematic sampling of the case notes. Data were compared using t tests for normally distributed data, and χ² (with Yates’ correction where appropriate), Fisher’s exact test or Wilcoxon’s rank sum test for non-normally distributed data.

IDUs (26 males, 11 females) were younger than controls (35 males, 2 females): 32-6, SD 5-7 years vs 37-1, SD 8-1 years, p = 0-007. Thirty-one (84%) of the IDU had intravenous drug use as their only risk factor for HIV, the other six being also homosexual men. Thirty-three (89%) of the control group were homosexual men, two were African, one was the heterosexual partner of an HIV positive woman, and for one there was no clear risk factor. Thirteen of the drug users were receiving opiates on a legal prescription, 13 were using non-prescribed opiates and 11 were former drug users. Seven of the IDUs were noted to have significant alcohol problems, compared with none of the control group: this may have been an artefact of recording. Eleven (30%) of the IDUs were without permanent housing, compared with two of the control group (χ² = 5.97, p = 0.014).

There was no difference in the number of admissions per patient during the study period (2-2, SD 1-6 for IDUs, 2-4, SD 1-4 for

controls) or in the total number of days in hospital (IDUs: median 23, range 1–123; controls: median 27, range 2–217). Three of the IDUs claimed to be HIV positive at admission but were found to be HIV negative when tested: three others were known to be HIV negative and were admitted for treatment of injection site abscesses. Only one control patient was HIV negative: he had been admitted for source isolation at a time when his HIV status was unknown. Karnofsky scores were estimated for each patient at the time of admission, and used to calculate a mean score per patient:1 the scores were significantly higher in IDUs (IDUs: 58.6, SD 21.5, controls: 46.5, SD 14.2, p = 0.005), suggesting that they were less unwell. The IDUs had a total of 81 inpatient episodes, 29 of which were with an AIDS-defining illness (using the 1987 CDC criteria), compared with 90 inpatient episodes for controls, 65 of which were with an AIDS-defining illness ($\chi^2 = 21.4$, p < 0.001). All 13 IDUs who were on legal opiates were prescribed methadone on the ward, as were seven of the 13 illegal opiate users.

Behavioural problems were recorded in the medical or nursing notes more often for IDUs than controls (16 incidents in 81 admissions for IDUs, four incidents in 90 admissions for controls, $\chi^2 = 8.2$, p = 0.04). Recorded incidents included use of non-prescribed drugs, serious non-compliance with treatment and physical or verbal aggression. The IDUs had more unplanned discharges than controls (17 out of 81 admissions vs four out of 90 admissions, $\chi^2 = 9.3$, p = 0.002). Amongst current IDUs, there was no difference in the number of recorded behavioural problems in those who were or were not prescribed methadone on the ward, or in those who were or were not receiving legal opiates at the time of admission. However, behavioural problems were recorded more often in current opiate users compared with former users (15 incidents out of 60 admissions in current users vs 1 out of 21 in former users: $\chi^2 = 2.8$, p = 0.037).

Substance misuse on the ward was documented in nine out of 81 admissions for IDUs: there were no recorded episodes in the control group ($\chi^2 = 8.4$, p = 0.0009). Amongst current IDUs, there was no difference in episodes of substance misuse between those receiving methadone on the ward and those who were not, but there were fewer episodes in those receiving prescribed opiates at the time of admission (one incident in 27 admissions vs eight in 33, $\chi^2 = 4.9$, p = 0.02). No episodes were recorded in former IDUs.

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Summary.

Drug users have a reputation for being bad patients. However, we found relatively few recorded incidents, although they were more frequent in IDUs than controls. Only three problems were noted in the group of former IDUs. Active drug users on HIV inpatient units are likely to need substantially more care. Nursing and medical staff may need training in dealing with difficult patients and policies for prescription of replacement opiates may be helpful. To avoid unnecessary admission, outpatient HIV services need to be flexible and designed to accommodate drug users as well as non drug users. A liaison service, as provided by an addiction specialist could also improve care.

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Assessment of contraceptive choice in HIV seropositive women

Condoms have proved impermeable in vitro to the human immunodeficiency virus (HIV) and when used consistently in HIV discordant couples have been associated with low seroconversion rates. They have been widely promoted as a means of reducing both HIV transmission and other sexually transmitted diseases whilst affording protection against an unwanted pregnancy. However, it is well recognized that there is a higher conception or failure rate with condoms than certain non barrier methods and fertility rates in HIV infected women are not significantly different from comparable non infected women. Little is known about the factors influencing HIV positive women to request contraceptives additional to condoms.

All HIV seropositive women attending our unit receive contraceptive counselling as part...
Use of an inpatient HIV unit by injecting drug users.

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*Genitourin Med* 1995 71: 53-54
doi: 10.1136/sti.71.1.53-a

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