

Letter to the Editor

Trends of HTLV-I and HIV Infections in Drug Addicts

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THE possible role of double infection with human retroviruses HIV and HTLV-I on tumor induction in subjects at risk for AIDS has recently received much attention, but time is clearly needed to answer the questions posed by Clumeck [1]. We report here additional data which extend previous observations [2] on HIV and HTLV-I infections.

To evaluate the spread of both viruses in the Veneto region (North-east Italy) over the last 9 years, we investigated the seroprevalence of anti-HIV and anti-HTLV-I antibodies by Elisa and Western blot techniques [3] in two separate groups of intravenous drug abusers. Group 1 consisted of 469 drug addicts hospitalized consecutively for acute viral hepatitis in the Department of Infectious Diseases of the City Hospital of Padova; these subjects had a history of drug abuse of less than 2 years. Group 2 included 1153 outpatients admitted to the same hospital for detoxification, starting from 1983; all had a history of drug abuse greater than 2 years, and most had serological evidence of previous exposure to hepatitis B virus.

As shown in Fig. 1, HIV infection was first detected in Group 1 in 1980, a date which coincides with the spread of drug abuse in this region. A significant ($P < 0.01$, as determined by the chi-square test) rise in anti-HIV antibody incidence was recorded in 1983 (14.8%), and con-

tinued to increase up to 1985 (26.9%). Group 2 showed a similar trend up to 1985, when HIV antibody incidence became significantly higher (65.9%, $P < 0.01$), thus confirming that the risk of HIV infection was related to the duration of exposure. Interestingly enough, the percentage of seropositive cases declined in both groups in 1986, but the reduction was more striking in Group 2. HTLV-I infection appears to be introduced into this population at the same time as HIV, but its spread remained significantly lower, probably due to the low infectivity of this agent [4, 5]. HTLV-I seroprevalence in Group 2 also showed a peak incidence (9.4%) in 1985, but decreased slightly in 1986.

Recent reports suggest that the fear of AIDS might have reduced the incidence of sexually transmitted diseases [6] and acute hepatitis in drug abusers [7]. In our study it was not possible to calculate the seroconversion rate per year because of the poor compliance of the seronegative subjects, but it is conceivable that the reduced percentage of seropositive cases observed in 1986 could reflect a true decline in HIV and HTLV-I infections following the information campaign aimed at preventing needle-sharing among drug abusers.

It should be noted that only 25% of the HTLV-I seropositive subjects in Group 1 were also HIV seropositive, thus suggesting that these infections are acquired separately. On the other hand, 90% of the HTLV-I seropositive subjects in Group 2 also had antibodies to HIV; this finding is most likely related to the significantly greater exposure to both viruses in long-term drug addicts.

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