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Increase in Heterosexually Acquired AIDS among Japanese, 1986 to 1996

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As of June 1999, a total of 2,065 AIDS cases and 4,585 HIV infection cases have been reported since reporting began in 1984 (1). To date, HIV/AIDS has been less prevalent in Japan than in other industrialized countries (2). In 1997, the number of newly reported AIDS cases in Japan was 250 (0.20 per 100,000 population), while it was 60,634 (22.3 per 100,000 population) in the United States (US) and 1,381 (2.35 per 100,000 population) in the United Kingdom (UK) (3-5). Though the number of reported cases in Japan has been relatively small, heterosexually acquired AIDS, which accounts for 61% of the cumulative AIDS cases (excluding those with hemophilia and those falling under the category of unknown exposure), has been steadily increasing (3). The present report discusses the trend of heterosexually acquired AIDS in Japan as compared with that of the UK and US.

AIDS incidence and its trends varies among race/ethnic groups, even within the same country. In the US, the incidence rates of AIDS among Black men and women were 7 times and 20 times greater, respectively, than among whites (6). The incidence of the estimated AIDS-opportunistic illness has recently declined among whites and Hispanics, whereas it has remained stable among other racial and ethnic groups (7). In the UK, more than 60% of heterosexually acquired HIV infections were associated with exposure in Africa, including people who had migrated from sub-Saharan Africa, and people who had stayed in sub-Saharan Africa (8). Here, we can detect the influence of population movement. In Japan, 75% of all AIDS patients have been Japanese, among whom heterosexually acquired AIDS has been increasing (3).

In order to examine the extent of this increase, trends in heterosexually acquired AIDS among Japanese was compared with such trends among whites in the UK and US. Data were extracted from CDC's national AIDS Surveillance data base and from reports from the PHLS AIDS Centre, UK (5,9).

From 1986 to 1995, heterosexually acquired AIDS cases increased among Japanese, UK whites, and US whites (Fig. 1).

The ratio of AIDS cases in each year to that in 1986 was calculated. UK whites and US whites showed a similar proportional increase in number of infections until the early 1990s; the ratio then leveled out and declined in 1996 (Fig. 2). On the other hand, the ratio among Japanese showed a smaller increase than did the ratio of UK whites and US whites until 1991. Then the ratio among Japanese increased significantly through 1996. The number of heterosexually acquired AIDS cases among Japanese in 1996 was 42 times larger than that of 1986. Because Japanese AIDS cases in 1986 was small in number (2 cases), this ratio should be interpreted with caution. However, the steady proportional increase among Japanese is still of note, as it is not seen among UK whites and US whites during the same period.

The increase in heterosexually acquired AIDS among Japanese can be considered as a true increase in the incidence of AIDS; there has been little change in the completeness and timeliness of reporting over the observed period. The reporting rate for AIDS in Japan is estimated to have been approximately 90% during the observed period of time.

The difference in trend among Japanese from that among whites in the UK and US may reflect differences in the time of introduction of HIV, behavior changes, and uptake of treatments. Until recently, the number of AIDS cases was an indicator of HIV infections that had occurred approximately ten years previously. In Western Europe and in North America, HIV was introduced by the early 1980s and the incidence peaked in the mid-1980s (10,11). The first AIDS case attributed to heterosexual exposure was diagnosed in US whites in 1982 and in UK whites in 1983. Relatively slow increase and stabilization during the 1990s among these groups may reflect a cohort effect with a saturation of the population at risk not being replaced by a similar number of newly infected individuals. In Japan, the first heterosexually acquired AIDS case was diagnosed in 1986 and HIV infection started to increase in the early 1990s. Relatively late introduction of heterosexually transmitted HIV to Japan can explain the recent increase of AIDS cases.

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Fig. 1. Heterosexually acquired AIDS cases per 100,000 population, by year of diagnosis.

Fig. 2. Heterosexually acquired AIDS by year of diagnosis: ratio to the number of AIDS cases in 1986.

A greater rate of increase among Japanese than among whites in the UK and US after 1993 may also suggest that behavior changes occurred less frequently among Japanese than among whites in the UK and US circa ten years previous to acquiring AIDS. Until 1990, most of the Japanese AIDS patients who reported with information on the place of exposure to HIV were considered to have been infected abroad. From 1991 to 1996, however, AIDS patients who had probably been exposed to HIV in Japan increased and accounted for nearly 70% of the total number of cases. Due to the relatively late introduction of HIV, Japan was in a position to benefit from lessons learned from the West. However, prevention programs could not effectively stop the transmission of HIV in Japan.

In the UK and US, it has been documented that new antiretroviral treatments have contributed to the decline in AIDS incidence and AIDS death (10,11). Effective treatment requires that HIV infected persons are aware that they are infected and also that they subsequently seek treatment. An analysis of Japanese AIDS surveillance data indicates that nearly 80% of the people diagnosed with AIDS were ignorant of their HIV seropositivity prior to the AIDS diagnosis. The effect of recent improvements in antiretroviral therapy had little obvious influence in the AIDS trend up to 1996 in Japan.

Though the prevalence is relatively low, rapid and continual increase of heterosexually acquired AIDS since the early 1990s in Japan is of concern. Unless more HIV-infected people become aware of their HIV status and receive treatment, we cannot expect a remarkable decline in the incidence of AIDS in the near future. Voluntary testing and counseling, as well as other prevention programs need to be expanded.

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