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Acquired Immune Deficiency Syndrome (AIDS) in Prison Inmates -- New York, New Jersey

CDC has received reports from New York and New Jersey of 16 prison inmates with the acquired immune deficiency syndrome (AIDS).

New York: Between November 1981 and October 1982, ten AIDS cases (nine with *Pneumocystis carinii* pneumonia (PCP) and one with Kaposi's sarcoma (KS)) were reported among inmates of New York State correctional facilities. The patients had been imprisoned from 3 to 36 months (mean 18.5 months) before developing symptoms of these two diseases.

All ten patients were males ranging in age from 23 to 38 years (mean 29.7 years). Four were black, and of the six who were white, two were Hispanic. Four of the nine patients with PCP died; the patient with KS is alive. All nine patients with PCP also developed oral candidiasis. None of the patients was known to have an underlying illness associated with immunosuppression, and no such illness was found at postmortem examination of the four patients who died. PCP was diagnosed in all nine cases by means of transbronchial or open-lung biopsy, while KS was diagnosed by biopsy of a lesion on the leg.

Evidence of cellular immune dysfunction was present in the nine patients with PCP: eight were lymphopenic, and all nine were anergic to multiple cutaneous recall antigens. An abnormally low ratio of T-helper to T-suppressor cells was present in six of seven patients tested, and in vitro lymphocyte proliferative responses to a variety of mitogens and antigens were significantly depressed or negative in the six patients tested. The one patient with KS had cutaneous anergy and a decreased proportion of T-cells in his peripheral blood. The ratio of T-helper to T-suppressor cells was normal; studies of lymphoproliferative response were not done.

All ten patients reported that they were heterosexual before imprisonment; one is known to have had homosexual contacts since confinement. However, the nine patients with PCP were regular users of intravenous (IV) drugs (principally heroin and cocaine) in New York City before imprisonment. The seven patients who were extensively interviewed denied regular IV drug use since confinement, although two reported occasional use of IV drugs while in prison. The ten patients were housed in seven different prisons when they first developed PCP or KS. Three patients who developed symptoms of PCP within 1 month of each other were confined in the same facility. However, they were housed in separate buildings, and each denied any social interaction (including homosexual contact and drug use) with the other patients.

All inmates of the New York State correctional system receive a medical evaluation when transferred from local or county jails; this usually includes a leukocyte count. Of the nine AIDS patients who initially had leukocyte counts, seven did not then have symptoms of AIDS. Four of these seven asymptomatic males had leukocyte counts below 4000/mm³. For these four, the time between leukocyte counts and development of clinical PCP symptoms ranged from 4 to 19 months (mean 11.5 months).

New Jersey: Of the 48 AIDS cases reported from New Jersey since June 1981, six have involved inmates of New Jersey State correctional facilities. All six had PCP. They were imprisoned from 1 to 36 months (mean 17.5 months) before onset of symptoms.

All six patients were males ranging in age from 26 to 41 years (mean 32 years). Three were black; three, white. Four of the six died within 1-8 months of onset of their illnesses. None of the six was known to have underlying illness associated with immune deficiency. Immunologic studies of the two survivors have shown cutaneous anergy, leukopenia, lymphopenia, and increased circulating immune complexes. T-cell studies were not done.

All six patients have histories of chronic IV drug abuse. Of the five for whom sexual orientation was reported, four were heterosexual, and one was homosexual. The two living patients have denied both IV drug use and homosexual activity since imprisonment. No two of the six patients had been confined in the same facility at the same time. Reported by: G Wormser, MD, F Duncanson, MD, L Krupp, MD, Dept of Medicine, Westchester County Medical Center, R Tomar, MD, Dept of Pathology, Upstate Medical Center, DM Shah, MD, Horton Memorial Hospital, B Maguire, G Gavis, MD, New York State Dept of Corrections, W Gaunay, J Lawrence, J Wasser, Medical Review Board, New York State Commission of Corrections, D Morse, MD, New York State Bureau of Communicable Disease Control, R Rothenberg, MD, State Epidemiologist, New York State Dept of Health; P Vieux, MD, K Vacarro, RN, St. Francis Hospital, R Reed, MD, A Koenigfest, New Jersey State Dept of Corrections, I Guerrero, MD, W Parkin, DVM, State Epidemiologist, New Jersey State Dept of Health; Field Svcs Div, Epidemiology Program Office, Div of Host Factors and AIDS Activity, Center for Infectious Diseases, CDC, Cunningham-Rundles, PhD, Memorial Sloan Kettering Institute, New York City.

Editorial Note

Editorial Note: Since male homosexuals and IV drug abusers are known to be at increased risk for AIDS (1), the occurrence of AIDS among imprisoned members of these groups might have been anticipated. Increasingly, epidemiologic observations suggest that AIDS is caused by an infectious agent transmitted sexually or through exposure to blood or blood products. Because of the difficulties inherent in interviewing prisoners, data elicited in such interviews must be viewed cautiously. Given this caution, the histories obtained from the inmates indicate that all or most of their drug use, and, by inference, their exposure to a blood-borne agent, occurred before confinement.

The presence of leukopenia in some of the prisoners tested on admission to the prison system may imply that laboratory evidence of immune dysfunction may precede clinical illness by months.

Health care personnel for correctional facilities should be aware of the occurrence of AIDS in prisoners, particularly prisoners with histories of IV drug abuse. AIDS cases identified in prisoners should be reported to local and state correctional and health departments and to CDC.

Reference

1. CDC. Update on acquired immune deficiency syndrome (AIDS)--United States. MMWR 1982;31:507-8, 513-4.

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