

UPDATE

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AIDS DEVELOPMENT IN HTLV-III INFECTED INDIVIDUALS

Among 725 persons from five groups at risk for AIDS, 276 (38 percent), were found to be infected with HTLV-III, the virus that causes AIDS. Over a 3-year period, 34 percent of the infected individuals in one of the risk groups studied have developed AIDS.

This highest percentage of AIDS cases was seen among 44 infected homosexual men in Manhattan. In the other four groups, AIDS developed in: 25 percent of 24 infected drug abusers in Queens, New York; 17 percent of 42 infected homosexual men in Washington, D.C.; 13 percent of 40 infected hemophilia-A patients in Hershey, Pennsylvania; and 8 percent of 26 infected homosexual men in Denmark.

"Scientists do not know what the full latency period is between infection with HTLV-III, the virus that causes AIDS, and development of disease," explained Dr. James J. Goedert of the National Cancer Institute (NCI) and principal investigator. "We also do not know what percentage of infected individuals will eventually develop AIDS, and if the risk differs among groups. However, the longer a person carries the virus and continues to experience damage to his immune system, the more likely it is that he will develop AIDS. Continued follow up of these groups will be important to try to answer these questions."

The study is reported in the February 28, 1986, issue of Science by Dr. Goedert and colleagues.*

* Co-authors are: Dr. Robert J. Biggar, Dr. Stanley H. Weiss, Dr. Robert C. Gallo, and Dr. William A. Blattner of NCI; Dr. M. Elaine Eyster, Milton S. Hershey Medical Center of the Pennsylvania State University, Hershey; Drs. Mads Melbye, and Peter Ebbesen, Institute of Cancer Research, Aarhus, Denmark; Susan Wilson, ORI, Inc., Bethesda, Md.; Dr. Harold M. Ginzburg, National Institute on Drug Abuse, Rockville, Md.; Dr. Ronald J. Grossman, New York City; Drs. Richard A. DiGioia and William C. Sanchez, Washington, D.C.; and Dr. Jose A. Giron, Flushing Hospital, New York City.

(More)

All of the study participants were enrolled before October 1982, and none had AIDS at the time of enrollment.

The high rate of AIDS among infected men in the Manhattan homosexual group may be because HTLV-III was introduced into this group earlier, Dr. Goedert said. New York City homosexuals were one of the first groups in the United States to be struck by the AIDS epidemic. The epidemic among American homosexual men is generally believed to be about one year ahead of the epidemic in drug abusers, and more than two years ahead of the epidemic in hemophiliacs and European homosexual men.

When the study began, 52 percent of homosexual men in Manhattan were infected with HTLV-III; 46 percent of the New York drug abusers, 38 percent of hemophilia-A patients; 26 percent of homosexual men from Washington, D.C.; and 10 percent of the Danish homosexual group. Each year since then, the number of infected individuals has increased in every group.

On the other hand, he said, the Manhattan homosexual group may be at higher risk of developing AIDS than the other groups because of some unknown co-factor or co-factors. A type of cancer called Kaposi's sarcoma developed in nearly half of the Manhattan men with AIDS, a higher proportion than would be expected. For unknown reasons, Kaposi's sarcoma occurs almost exclusively in homosexual male AIDS patients, and generally accounts for less than one-third of all AIDS diagnoses. In addition, homosexual men with AIDS often have used many recreational drugs and have had many sexual partners, either of which may have exposed them to some unknown co-factor that might contribute to the development of Kaposi's sarcoma.

By analyzing stored blood samples from the hemophilia-A patients, the investigators were able to estimate that AIDS developed in five of these patients from 28 to 62 months after infection. This supports the belief that the latency before development of AIDS can be long, Dr. Goedert said. (Hemophilia-A patients cannot make enough Factor VIII, a serum factor needed for the normal clotting of blood. Factor VIII concentrates, which are

made from blood plasma pooled from thousands of donors, have been linked with transmission of HTLV-III.)

Dr. Goedert also cautioned that the percentage of AIDS in this study may not occur in the general population, since the study group was small and may not represent the typical risk for AIDS. But the data do provide evidence that in some groups the risk may be higher than previously appreciated.