

AIDS in Homosexual Men in New York City 1981—1985: Evolution of an Epidemic.

J. A. Sonnabend,¹ S. Saadoun,² H. Lipscomb,³ D. Volsky³ and D. T. Purtilo³

¹*Columbia University, New York. Department of Pediatrics,* ²*Epidemiology*

³*University of Nebraska Medical Center, Omaha Nebraska*

Department of Pathology and Microbiology, U.S.A.

The development of AIDS has been observed in the setting of a medical practice which provided care to homosexual men in Greenwich Village area of New York since 1978. There was thus a unique opportunity to not only observe the clinical and laboratory manifestations of AIDS but also to achieve some appreciation of the setting in which the disease developed. AIDS and associated conditions developed in patients about whom prior information, particularly with respect to sexually transmitted diseases, had already been obtained. Systematic laboratory studies including assays for LAV antibodies were performed on 70 asymptomatic homosexual men, 140 men with lymphadenopathy, 24 men with opportunistic infections, and 14 with Kaposi's sarcoma alone. For comparison with a low incidence area for AIDS 90 homosexual men in apparent good health in Omaha Nebraska, were also studied. In many instances isolation of LAV from lymphocytes of study participants was also undertaken. In general, the titre of antibodies to LAV as measured in an immunofluorescence assay showed a good correlation with the overall amount of serum IgG in asymptomatic individuals and those with lymphadenopathy. This association was less evident in patients with Kaposi's sarcoma alone, and not present in

patients with opportunistic infections. Extensive studies on EBV serology were also done. Anti VCA IgG antibodies were 2 - 4 fold higher in individuals who were LAV antibody positive compared with LAV negative individuals. This was seen irrespective of the clinical state of the patient. In addition, individuals who were LAV positive were more likely to manifest an EBV serologic reactivation pattern. It was also determined that the presence of anti EBV VCA IgA antibodies served as an indication of EBV reactivation in these patients. Assays for serum interferon were also performed on study subjects. Only individuals with AIDS had significant levels of interferon in their sera. The appearance of circulating interferon in individuals with lymphadenopathy and in asymptomatic men was an adverse prognostic feature with respect to the development of AIDS. In addition our studies have indicated that sustained exposure to high levels of interferon was associated with a diminution in T4 lymphocyte numbers, as well as with an increase in serum IgA levels. Our results suggest that chronic exposure to high levels of interferon may play a role in the pathogenesis of AIDS.

Our findings in homosexual men will be discussed in relation to the pathogenesis of AIDS in this risk group, with a review of the relevance of these findings to the development of the disease in other risk groups.