
Conference Report

AIDS scientists are polarized on issue of mass testing

by John Grauerholz, M.D.

The Third International Conference on AIDS, held at the Washington Hilton Hotel June 1-5, 1987, was dominated less by any breakthrough revealed at the conference, than by an event which immediately preceded it. This was the announcement by President Reagan, at a testimonial dinner for Surgeon General C. Everett Koop, that he had ordered that AIDS be placed on the list of communicable and contagious diseases, for which immigrants could be denied admission to the United States, as well as mandating routine testing at federal prisons and Veterans Administration hospitals.

The polarization generated by this announcement, was manifested by the mixed applause and boos which greeted Vice-President George Bush when he enunciated the policy in his keynote speech to the conference on June 1. While backing Koop on the issue of AIDS "education," Bush stressed that education was a matter to be decided locally, and then, acknowledging the conflict between public health and privacy, asserted, "We must protect the uninfected." Acknowledging that there were differences of opinion on this issue, he said that it was the responsibility of government to make a decision and act on it.

This set the stage for a mobilization by homosexual and "civil rights" groups during the conference, to organize resistance to the President's policy.

Many of the actual scientists, as opposed to the sociologists and "advocates" present, were of the opinion that the President's program represented a reasonable and "measured" course between "extreme" positions. One scientist, who had recently questioned the efficacy of "safe sex" in the absence of knowledge of the infective status of the partners, expressed doubts that routine testing would drive people "underground," as opponents have claimed, and predicted that there would be wide demand for testing by people desiring to know their own status. On the issue of mandatory testing, he said: "That is a political issue, and I am glad that he [Reagan] made the decision and I didn't have to!"

Confirmation of increased public interest in testing is evident in a report from International Clinical Laboratories, that over the last few months there has been a dramatic increase in AIDS testing in laboratories across the country. International Clinical Laboratories' testing load has in-

creased from 60 tests per day in November 1986 to a current rate of 650 tests per day.

According to ICL chairman William O'Neal, "This whole issue of AIDS testing will become an explosive issue in the upcoming months, as political candidates, as well as the current administration, position themselves on the subject. Candidates are already beginning to craft their position on the issue of testing. As the number of cases grows, and the fear of AIDS increases, there is no doubt that there will be a growing push to increase AIDS testing, particularly among certain groups such as those seeking marriage licenses, immigrants, and those entering the hospital. As the numbers increase and as AIDS hits closer to home, we will no doubt begin to see more and more concern about preventing it, and part of prevention will be screening."

In the scientific sessions that followed the opening of the conference, Dr. Robert Gallo of the National Cancer Institute gave a presentation on "The AIDS Viruses," which did not substantially differ from a talk he gave in Brussels, Belgium in November 1985. Gallo presented the concept of a family of human AIDS retroviruses; he claimed to have evidence for a new such virus in Nigeria, which was only weakly related to HIV-1 and HIV-2. He also discussed the phenomenon of multiple infections with different AIDS viruses and/or leukemia viruses. He concluded that any highly replicating retrovirus with tropism for T4 cells can cause AIDS (that is, AIDS can be triggered by any fast developing retrovirus with an ability to bind itself to the body's infection-fighting T4 cells).

Gallo's talk was followed by a report by Erling Norby of the Karolinska Institute of Sweden, on "The Significance of Variations Between Human Immunodeficiency Isolates (HIV) for Serology and Vaccine Development." This was an elegant and rigorous description of the evolutionary development of the AIDS viruses and their related retroviral cousins. He described two types of AIDS viruses: HIV type 1 and HIV type 2. HIV type 1 includes LAV, HTLV-3 and ARV, all of which are now called HIV-1. HIV type 2 includes LAV-2, HTLV-4, and a Swedish isolate termed SBL6669, collectively designated HIV-2. These two types of viruses show markedly distinct external envelopes or outer shells, but

show some cross-reaction and similarity in the inner core proteins.

The next talk, by Peter Piot of the Institute of Tropical Medicine of Antwerp, Belgium, on "Natural History and Course of HIV Infection," set the theme that AIDS, especially in Africa, is strictly a sexually transmitted disease. Piot invoked anogenital trauma and ulceration as the factors which facilitated heterosexual transmission of the virus, especially in association with other sexually transmitted diseases. He then made a statement that caused a sensation in the press corps, to the effect that there was a higher risk of transmission associated with the use of oral contraceptives.

On the disease itself, Piot stressed the increasingly complex manifestations of HIV infection, including a growing number of "opportunistic diseases"—such as pneumocystis pneumonia, which only produces disease in immunosuppressed people—well as diseases directly caused by the virus itself. Diseases caused by the virus itself include destruction of the brain, spinal cord, and peripheral nerves, as well as chronic lymphocytic interstitial pneumonitis, an inflammation of the lungs. Over a period of 88 months, 35% of seropositive persons developed AIDS, with an annual rate of progression to AIDS of 2-8%, and no evidence of any decrease in rate of progression over time.

In a press conference, Surgeon General Koop said that he completely agreed with the President's statement of the previous day, stressing that "routine" testing was not the same as compulsory testing. He refused to answer a question as to whether the Atlanta Centers for Disease Control would continue to lobby against state AIDS testing bills, as it had recently done in New Hampshire. Subsequent events indicate that the CDC will in fact continue to fight against such programs, in defiance of the President's recommendation.

In the second day's plenary session, Dr. James Curran of the CDC gave a presentation on "Epidemiology of AIDS in the United States," which was a rehash of the CDC line that no significant change in the risk groups had occurred and that "heterosexual" cases were increasing twice as fast as all others. This presentation was punctuated by numerous references to Albert Camus's novel *The Plague*, with the plain assertion that Camus's existentialist philosophy was the basis of his own approach to the epidemic.

This exercise in futility was followed by an exercise in prostitution by I.S. Okware, Ministry of Health, Entebbe, Uganda. Speaking on the "Epidemiology of AIDS in Africa," Okware retailed the line that AIDS was being spread by prostitutes and oversexed truck drivers! After a digression to stress that sex was culturally important to Africans, he concluded that condoms were the route to salvation. No mention of environmental or economic cofactors interfered with this presentation. While he acknowledged that there was a threat to the country's cadre of educated young adults, the full magnitude of the catastrophe facing Uganda was avoided.

One reason for Dr. Okware's position surfaced in the

course of the following presentation by Dr. Jonathan Mann of the World Health Organization (WHO), speaking on "AIDS Epidemiology, Impact, Prevention and Control: The World Health Organization Perspective." Mann mentioned that Uganda would be receiving \$6 million from the WHO for AIDS-related activities. Mann predicted up to 3 million new AIDS cases by 1991—irrespective of prevention and control measures.

As of June 1, according to Mann, 51,535 cases of AIDS have been reported to WHO from 113 countries, however, the total number of cases is estimated by WHO to be in excess of 100,000. WHO estimates that 5-10 million persons are currently infected with the AIDS virus.

"A global problem of this magnitude demands a global attack," Mann said, and then proceeded to attack mass testing and travel restrictions on AIDS carriers. He proposed to combat the virus by a combination of forming committees, convening ministerial meetings, and issuing memoranda, to "temper the enthusiasm for indiscriminate testing"—or any other intervention which might actually be effective.

One of the more significant things to emerge from the conference, was a large body of evidence that all HIV-infected individuals have impairment of the brain and nervous system, regardless of whether they have AIDS, AIDS-Related Complex (ARC), or are asymptomatic. A study of neuropsychiatric manifestations of HIV virus infections among homosexual and bisexual men indicated a high rate of prevalence, even among seronegatives. An Australian study documented neurologic complications in seropositive individuals in the absence of immune deficiency, and another study indicated that antibodies to HIV are produced in the central nervous system of all HIV-infected individuals. This holds out the very real possibility that, within 10-20 years, we will have hundreds of thousands of demented young to middle-aged adults, as the virus slowly, but relentlessly, proliferates in their brains.

Progress in testing

On the testing front, a number of highly sensitive and specific assays for virus and viral antigen have been developed and are nearly ready for mass-scale, low-cost, testing of the population. A method for detecting AIDS virus in the blood has been developed by a virologist at the University of Southern California. Known as gene amplification, the technique can stimulate the production of virus proteins from virus integrated into cells, in the absence of cell free virus or antibodies. The technique is sensitive to the level of being able to detect virus in one infected cell in one million, and has documented cases of infection with HIV-1 and HIV-2 in patients without antibodies. The virus proteins can then be detected by new assays for viral antigen.

A number of highly sensitive and specific assays for virus and viral antigens are now commercially available. These have been developed by such companies as DuPont, which

are now moving heavily into the areas of diagnostics and chemotherapeutic agents. These have the advantage over antibody tests, of being able to detect antibody-negative virus carriers. In addition, information from the military screening program indicates that 2.5 million persons have been screened with a sensitivity and specificity of 99-100%, with current antibody tests, in spite of claims of high false-positive results by elements at the CDC.

The cover-up continues

The question of environmental cofactors was dealt with badly in a biased CDC study on Belle Glade, Florida, famous for a very high concentration of AIDS cases in a small slum area of the town. By doing a random study of the *entire* town for the presence of antibodies, the CDC researchers were able to statistically "wash out" the singular pocket of cases in the slum section. This, combined with arbitrary reassignment of the "no identified risk" cases, eliminated the effect of environmental factors to the satisfaction of the CDC. Other papers on environmental cofactors in Africa were not allowed to be presented.

In addition to perpetuating the coverup on environmental cofactors, the conference organizers did not allow any presentations on potential saliva transmission.

One of the more amusing episodes of the conference occurred in the Thursday morning plenary session. The first presentation, on "The Human Immunodeficiency Viruses," was given by Luc Montagnier, of the Pasteur Institute of Paris. Montagnier presented data on HIV-2 (LAV-2), a new AIDS-causing virus he and his colleagues had isolated from AIDS patients in West Africa. HIV-2 appears to be closely related to the simian (monkey) viruses indigenous to Africa and serologically related to a non-pathogenic virus, designated HTLV-4 by Myron Essex of Harvard, of which more below. Montagnier concluded that HIV-1, the original AIDS virus, has no known animal reservoir and its origin is still a mystery.

Following Montagnier, Dr. Essex of Harvard spoke on "Human and Simian T-Lymphotropic Retroviruses: Serologic Identification and Vaccine Development." Essex's thesis was that his non-pathogenic HTLV-4 virus was the same as Montagnier's pathogenic LAV-2, a contention which Montagnier had refuted, based on genetic sequencing of the two viruses. In the papers which followed, a much more interesting thesis emerged: that Essex had contaminated his human cultures with the original monkey virus he had obtained from the New England primate center.

A large number of papers on chemotherapy of AIDS were presented. Most of these concerned the use of AZT and related chemicals, and showed promising results in terms of clinical improvement of patients suffering from pneumocystis pneumonia, a common opportunistic infection and leading cause of death of AIDS patients. Unfortunately, these agents have the same side-effects and problems associated with can-

cer chemotherapy, namely bone marrow suppression, which in the case of AZT renders 20% of patients dependent on repeated blood transfusions. Nonetheless, a number of major pharmaceutical firms have now moved into this area in a major way.

One aspect of AIDS which was heavily emphasized was the high incidence of the disease among blacks and Hispanics in the United States. This was heavily pushed as a question of genetic susceptibility, and any mention of socioeconomic factors, other than drug abuse or promiscuity, was systematically avoided.

The conference was attended by 7,324 participants plus over 1,000 media representatives. Of the participants, a majority were not scientists, but were social scientists, "educators," and members of various advocacy groups, such as the Lavender Hill Mob, whose main function was to proselytize for the rights of homosexuals and the condom industry, and against any form of testing or other measures that might actually stop the epidemic. This has produced a situation in which otherwise competent scientists are couching their studies in such a way as to propitiate, or at least placate, these groups which have established a stranglehold on this issue.

The dominating position of these groups has been severely shaken by President Reagan's decision to proceed with a limited federal testing program, including a random population study to determine "the extent to which AIDS has penetrated our society." This has provoked responses from such august bodies as the American Society of Law and Medicine and the Harvard School of Public Health, attacking mass testing as not "cost-effective," and opposing premarital testing and testing of prisoners. In addition, there is opposition to routine testing of hospital admissions, in spite of the recent cases of health care workers infected by blood contact and a report on the high number of infected persons admitted to hospital emergency rooms.

In one of the closing speeches of the conference, June Osborn, dean of the School of Public Health of the University of Michigan, described the mood at the conclusion of each of the three AIDS conferences to date. The first conference in Atlanta concluded in a mood of shock at the extent of the problem. The second conference in Paris concluded in a state of gloom over the prospects of doing anything about it. The conclusion of this conference, she stated, was one of restrained optimism.

One assumes that Dr. Osborn was looking at the issue from the point of view of the human race. It would be interesting to view the issues, and non-issues, of this conference from the point of view of the virus. From that standpoint, it is evident that, barring some major and unprecedented breakthrough, and if the Lavender Hill Mob and the Harvard School of Public Health can stymie the growing pressure for real public health measures, that the outlook is highly promising for the virus to make good on Nikita Khrushchov's boast, "We will bury you!"