Scientist Outlines AIDS Situation in Africa

By Blair Gately

AIDS in Africa is emerging as a major problem, but the extent of the disease can be limited by mounting public health campaigns, according to an NIH scientist.

At a recent presentation at the Clinical Center's Grand Rounds, Dr. Robert Biggar, AIDS international coordinator at NCI's Environmental Epidemiology Branch, gave an update on AIDS infection on the continent.

"Geographically, AIDS is spreading very fast—but in selected groups, like prostitutes," he said. "In capital cities in Africa the rate of infection among prostitutes is high because they tend to migrate from city to city." He said that in Abidjan, Ivory Coast, prostitutes have a 50 percent infection rate, while the figure reaches about 60 percent in Nairobi, Kenya.

Biggar cautioned that even though certain groups are highly infectious, he does not think AIDS has so far affected as many people in Africa as has been estimated by some international health organizations, which have estimated that 10 million Africans may be infected.

Biggar estimates that "less than 1 million people" in Africa were infected, based on 1985 data.

In Europe, Belgian and French physicians who initially treated Africans exhibiting symptoms similar to those suffered by U.S. AIDS patients were not sure if the Africans indeed had AIDS.

"The African AIDS patients seen in Europe were about equally divided between men and women and that confused clinicians," he said. "There was considerable discussion and dispute since the disease seen in the United States was primarily affecting homosexual men."

It was only after the AIDS virus was identified, according to Biggar, that the puzzle was solved and the disease was recognized as AIDS "with the clinical condition in Africa virtually identical to that in the United States."

In addition, Biggar said that a form of Kaposi's sarcoma, a cancer found in U.S. AIDS patients, has been common for the past 30 years in an area of eastern Africa from Ethiopia to Zambia. In its endemic form in Africa, it is unrelated to AIDS infection and primarily affects the rural poor, he said.

Ten percent of the cancer cases in that region are diagnosed as Kaposi's, as opposed to "far less than 1 percent" in the United States, said Biggar.

Even though the strain of Kaposi's found so frequently in Africa is not related to AIDS, he said, there is a form exhibited in AIDS patients that is "acute, overwhelmingly with opportunistic infections."

During his lecture, Biggar also related some potentially disturbing news about the possible transmission of the AIDS virus through breast milk. He told of a case in Australia where a baby tested positive for the AIDS virus after having been breast fed. Its mother had received a blood transfusion after giving birth, and physicians assume she passed it on to the baby through breast milk.

This development "has terrible implications for societies dependent on breast feeding—like those in Africa," Biggar said. "Women can't afford packaged milk and there is no refrigeration. Also, the cessation of breast feeding can lead to malnutrition and weight loss in children."

Biggar has made several trips to central and eastern Africa to study the AIDS epidemic. He says that African countries do not have the financial resources to afford wide-scale drug therapies for AIDS patients—at an estimated cost of $10,000 per patient per year—but he says public health campaigns can increase awareness of the disease and limit its transmission.

"We can make progress by educating people, but ultimately we will need a vaccine" to eradicate the disease in Africa and elsewhere, he said.

NIEHS Geneticists Lauded

Two geneticists at the National Institute of Environmental Health Sciences, Research Triangle Park, N.C., received awards from the Environmental Mutagen Society at its recent annual meeting in San Francisco. The awards were Dr. Errol Zeiger, of the Cellular and Genetic Toxicology Branch, Division of Toxicology Research and Testing; and Dr. John W. Drake, of the Laboratory of Genetics, Division of Intramural Research.

Zeiger received the Environmental Mutagenesis Recognition Award for his inspired work on behalf of the society, and his role in setting and maintaining scientific standards of mutagenesis testing. The award citation states that these standards, "serve as a model for the field of genetic toxicology."

Drake received the 1987 EMS Excellence Award for contributions to research in mutagenesis. He was cited, "for his pioneering work on the specificity of ultraviolet mutagenesis and the discovery of antimutators in bacteriophage T4 together with his early contributions to education and policy development in environmental mutagenesis." Both scientists received plaques and cash awards.

Dr. David P. Rall, director, NIEHS, said, "I congratulate Dr. Zeiger and Dr. Drake on their awards, and on their contributions to the field of genetics, which is among the most rapidly developing disciplines within the environmental health sciences."