

## The First Case of AIDS Due to Occupational Exposure in Brazil

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**The first case of AIDS due to occupational exposure in Brazil is described. The accident occurred in 1994 and the health care worker was classified as AIDS-positive with unidentified risk in 1997. The correct classification as occupational exposure occurred after an epidemiological investigation conducted in 1999.**

**Key Words: HIV/Aids; professional exposure; Brazil.**

Brazil ranks among the countries with the highest numbers of AIDS case reports in the world. By the end of the year 2000, 203,353 cases and 100,494 deaths due to AIDS had been reported by the National System [1]. Although there are 99 documented or possible cases of occupational exposure to HIV in the world literature [2], no cases had been reported in Brazil up to the present date.

In July 1999, after coming across an article in the lay press [3], in which a case of HIV contamination resulting from occupational exposure was described, we carried out an epidemiological investigation and were able to confirm the assumption made in the report about the means of HIV transmission.

The health care worker (HCW) was a nurse aide at a private hospital in the city of São Paulo. The accident occurred on October 14, 1994 during a venopuncture on an individual with clinical and laboratorial diagnosis of Aids. The accident occurred while helping a colleague with the above-mentioned procedure and was caused by the venous catheter

accidentally puncturing the professional's right forearm. The result of an HIV test performed on 10/17/1994 was negative. At the time all other possible risk factors for HIV were ruled out. The sole sexual partner was also found negative for HIV.

Although three out of the five risk factors for occupational acquisition of AIDS could be identified in this case, the HCW did not receive any prophylactic medication because at the time there was no official recommendation in Brazil for its use in the case of occupational exposure. In November of the same year, the HCW developed fever and cervical ganglia, but no definite diagnosis was made. During the same period, the patient that was the source of contamination died, thus demonstrating the severity of the case at the time of the accident.

Another HIV test was performed on 12/29/1994, again with a negative result.

On 04/11/1995, a third test was performed and was positive for antibodies against HIV by ELISA. In order to confirm the laboratorial diagnosis, a Western Blot was performed on 04/27/96, with a positive result.

The HCW condition evolved to repeated hydroadenitis, and on 09/27/96 the case was defined as AIDS, presenting a  $CD_4$  count =  $72/mm^3$ , oral and esophageal candidiasis, important weight loss, anemia, persistent coughing and lymphadenopathy.

The case of this HCW was reported on 08/10/1997, but not as occupational exposure. At that time the AIDS

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case database (SINAN- Brazilian Infectious Disease Reporting System) and reporting form did not include occupational exposure as an option, and the case was classified by the reporting service as unidentified risk.

The HCW was released from professional activities in June 1996 and recognized as an occupational accident by the Labor Ministry after a legal investigation. The HCW is currently well from a clinical point of view and is being followed up in a local health care service.

The investigation of the case was performed by the authors, professionals of the Disease Surveillance Division of the São Paulo State STD/AIDS Program in August 1999, by interviewing the HCW and examining the documents that prove all the data described above, making this case the first proven case of HIV contamination by occupational exposure in Brazil. After the investigation, the transmission category of the case was corrected to professional exposure in the AIDS case database.

This case emphasizes the importance of integrating all information from different databases and services rendered by different agencies. It also emphasizes the importance of adequately assisting and following all professional accidents with biological material and of establishing a disease surveillance system for these cases. As of January 2000, the São Paulo State STD/Aids Program established a surveillance system and standardized procedures for assisting and giving prophylactic medication to health professionals after occupational exposure. Professionals from all regions of the São Paulo State Health Department have been trained. A computerized program for reporting all cases of occupational exposure has been developed and implemented.

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