Leprosy and AIDS in the Amazon Basin

To The Editor:

The state of Amazonas in Brazil is a hyperendemic area of leprosy. Although there has been a control program in action for about the last 20 years, the prevalence rate and the detection rate were 39.4 per 10,000 and 67 per 100,000 inhabitants in 1994, respectively. The first case of AIDS in the state was diagnosed in 1986. Although there is a low incidence rate of AIDS in the state of Amazonas (9.5/100,000), 63% of the cases were diagnosed within the last 3 years (Ministerio da Saude do Brasil. Boletim Epidemiologico D.S.T./AIDS, Brasilia, 1995. Ano VII). This shows an increased trend of AIDS in the region. Despite an existing possibility of an interaction between *Mycobacterium leprae* and the HIV infection([1-3, 6, 7]), few clinical reports have been written and the effects of this co-infection have not yet been defined([4, 5]).

In this letter, the clinical aspects and progression of four patients who were identified as having leprosy and HIV infection [HIV 1-HIV 2 antibodies by enzyme immunoassay (Genelavia-Sanofi, France, and immunofluorescence)], one of them with AIDS which was identified by the presence of Kaposi's sarcoma, are described.

Case 1. JCLN, a 25-year-old married male, presented with a hypochromic lesion on the left arm, was skin-smear negative, intradermal reaction was Mitsuda positive and a histopathological examination of the lesion showed tuberculoid infiltrate. This led to the diagnosis of the tuberculoid form of leprosy in October of 1992. A drug combination treatment, including ofloxacin, was given to the patient who had agreed to take part in a double-blind trial for a period of 6 months. The patient took the treatment regularly and had no side effects or leprosy reactions. A routine serologic exam showed a positive result for HIV on 27 October 1993. Only after that did the patient say that he had known he was infected with HIV since 1991 but that he had ignored the fact and had not taken any preventative measures. The leprosy lesion has disappeared, and a general clinical exam and laboratory exams have not shown any abnormalities.

Case 2. VNA, a 27-year-old, male homosexual hairdresser. A diagnosis of borderline lepromatous leprosy was made on 15 September 1994. The patient presented with skin infiltration and disseminated plaques. The first skin-smear exam showed a bacterial index (BI) of 3.2 with 1% of intact

bacilli. Multidrug therapy (MDT-WHO) was started, and a month later the patient presented with a type 1 reaction which responded well to prednisone. In February 1995, a nodule-like lesion, reddish-purple and shiny in appearance, developed on the sole of the patient's right foot. Histopathological examination of the lesion was compatible with Kaposi's sarcoma. A serologic exam showed a positive result for HIV in March 1995. At present, the leprosy lesions are decreasing in size and number, and the patient is still taking MDT-WHO and AZT.

Case 3. RLS, a 27-year-old, married male was diagnosed as having lepromatous leprosy on 3 October 1978, having presented with anesthesia in the lower limbs, ulnar clawing in the left hand, and ulnar and common peroneal nerve enlargement. He had a positive skin smear, and histopathological examination showed histocytes with vacuolated cytoplasm with acid-fast bacilli. Treatment with sulfone was introduced but changed to MDT-WHO in June of 1986. After 2 years, the patient was released from treatment. Because his wife was detected as having HIV, he was advised to have the test which proved seropositive in March of 1995. At present, he has lost weight and has an ulcer on the sole of his foot.

Case 4. RM, a 30-year-old, male homosexual had anesthetic tuberculoid plaques on the thoracic region and the neck and left arm, a negative skin smear, a positive Mitsuda reaction, and histopathology of the lesion showed tuberculoid infiltrate. The patient was diagnosed as having tuberculoid leprosy, and MDT-WHO was started. HIV was detected in a routine serologic exam. At the moment, the patient has only residual patches and his general clinical and laboratory examinations are normal.

The high prevalence of leprosy and the increased trend of HIV infection in the Amazon region suggest that the co-existence of these two infections is not a rare event. However, there is a lack of epidemiological studies evaluating the prevalence of HIV in leprosy patients in the region. The clinical evolution or the response to treatment of the leprosy patients described above have not changed from those without HIV infection. However, two of them have not yet completed treatment. Only one patient had type 1 reaction and he responded satisfactorily to prednisone. Epidemiological studies are necessary to better understand the prevalence of the co-infection (leprosy and AIDS), and the progression of existing and new cases will need to be closely monitored. A probable hypothesis is that in the Amazon region these two infections are occurring in different social classes, which would explain the low incidence of sufferers of co-existing leprosy and HIV.

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