Raul Negrão Fleury<sup>1</sup>

## **RELAPSES IN LEPROSY\***

In 1996, at the Lauro de Souza Lima Institute (ILSL), a retrospective study on histological patterns of leprosy reactivation1 reviewed 66 cases (between 1987 and 1994). After the initial biopsy for diagnosis, these patients showed reactivation of the disease during or after specific treatment. The skin biopsies of these patients demonstrated features of active granulomatous reaction. Nine out of 66 reactivating cases showed increased bacilloscopic index when compared to the initial biopsy and/or presence of solid or typical bacilli characterizing bacillary proliferation. These 9 cases were considered relapses or downgrading reactions because of drug resistance of the bacilli, or even inadequate treatment. All the patients had been submitted to monotherapy and two of then had switched to multidrugtherapy (MDT) which resulted in effective reduction of bacilloscopy, index or fragmentation of the bacilli observed in subsequent biopsies.

A review of the leprosy biopsies in 2006 showed 21 cases of relapse after treatment with presence of solid bacilli. It is troublesome to extrapolate these findings to the Brazilian endemics, because the ILSL is a Reference Center for Leprosy and, therefore, we receive large numbers of biopsies from other Reference Centers and from several isolated Health Units. It is concerning the number of relapses seen in 2006, compared to the period between 1987 and 1994, because MDT has been the only therapeutic scheme used in Brazil in the last 15 years.

The efficacy of MDT, period of treatment and the possibility of re-infection are not the only factors to be addressed in relapsing cases. We first need to assess the magnitude of the problem by developing well designed clinical and epidemiological studies. We have identified,

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however, a situation that may contribute to unsuccessful treatment and occurrence of relapses after drug therapy is completed: the criteria of number of clinically detected lesions to define pauci and multibacillary patients. In spite of being the only possible criteria to be used in the basic health system unities, it is not always accurate. We have observed single lesions with histological features and bacilloscopy characteristic of multibacillary patients. Leprosy is a systemic disease, contamination is admitted to occur through the upper airways and bacilli are carried to their preference site (skin and peripheral nerves) passing by circulatory system and then reaching cutaneous and neural sites. One clinically detected lesion may be the edge of an "iceberg", and many other lesions may be on their way of being clinically detected. Thus, patients treated as paucibacillary may improve during treatment and then sometime later (it may even be years) develop generalized multibacillary lesions.

Another cause of failure is the choice of paucibacillary treatment scheme for indeterminate leprosy. Histopathology shows that clinical and histopathological lesions classified as indeterminate may be multibacillary.

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<sup>1</sup> Médico Anátomo-Patologista.

<sup>\*</sup> Instituto Lauro de Souza Lima. Rod. Cmte. João Ribeiro de Barros, Km 225/226. Caixa postal 3021. Bauru – SP. CEP 17034-971. rfleury@ilsl.br

They may even represent a lesion that exteriorizes in the context of a more generalized neural cutaneous involvement.

In the hierarchic importance for diagnosis, a detailed clinical examination overpowers the histopathological examination that is a narrow view of the entire disease process. For practical purposes, based on the Brazilian endemics and in face of our Health System, we give preference to the thorough clinical examination for leprosy diagnosis. Nevertheless, we would recommend the histopathological examination of all relapsing cases that did not follow the criteria of reversal reactions. Therefore, mechanisms to make such procedure available in the Health System should be created.

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