Rate of Decline in Bacterial Index in Leprosy; Observations After Three Different Chemotherapeutic Interventions

TO THE EDITOR:

Continuation of chemotherapy with bactericidal drugs in leprosy patients is generally practiced with a view to achieving a fall in the bacterial index (BI) even beyond the optimum period needed for "bacterial kill." Drawing samples from routine field programs with reliable skin-smear facilities ([2]), the decline in the percentage of multibacillary (MB) patients remaining positive after fixed-duration multidrug therapy (FDT) for 24 months and 12 months, respectively, has been documented ([1]).

We now report our observations over the years on 460 BL/LL patients who have completed the following courses of FDT (see table below).

Due to change in the concepts on FDT over the years, all patients could not be recruited at the same point of time. We have considered the mean BI of the three groups of patients available every year following pretreatment BI (Fig. 1). It is noticed that the pretreatment BI, which is comparable in the three groups, has by and large declined in a similar manner over the study period.

Figure 2 shows the percentage of patients remaining positive at yearly intervals (depending upon the number of patients available for follow up each year). There is apparently a parallel decline of patients remaining positive among the three groups. The inclusion of a much higher proportion (16%) of cases with a BI of >5 in the RO group (as opposed to 3%–7% in the WHO/MDT groups) might account for the slight shift of the Group III curve to the right. A total of 355 (77%) out of 460 patients [186 (87%) in Group I, 139 (73%) in Group II and 30 (54%) in Group III] have been rendered skin-smear negative. No relapse has been encountered in any of the groups (the follow-up period for Group I being 11 years).

Six years of experience with extremely brief treatment of 4 weeks has indicated results parallel to 12-month and 24-month interventions. We can, therefore, foresee the prospects of considerable savings in manpower and costs in the antibacterial approach and the possibility of diversion of such reserves to other equally important facets of leprosy management. Long-term results of WHO multicenter chemotherapy trials on larger samples of patients will be eagerly awaited to see if such prospects are indeed realistic enough to justify a change in global strategies of leprosy eradication.

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Group	Regimen	Duration	No. patients
I	WHO/MDT	24 mos.	214
II	WHO/MDT	12 mos.	190
III	Rifampin + ofloxacin ("open trials" using WHO protocol for multicenter trials, 1991)	28 days	56

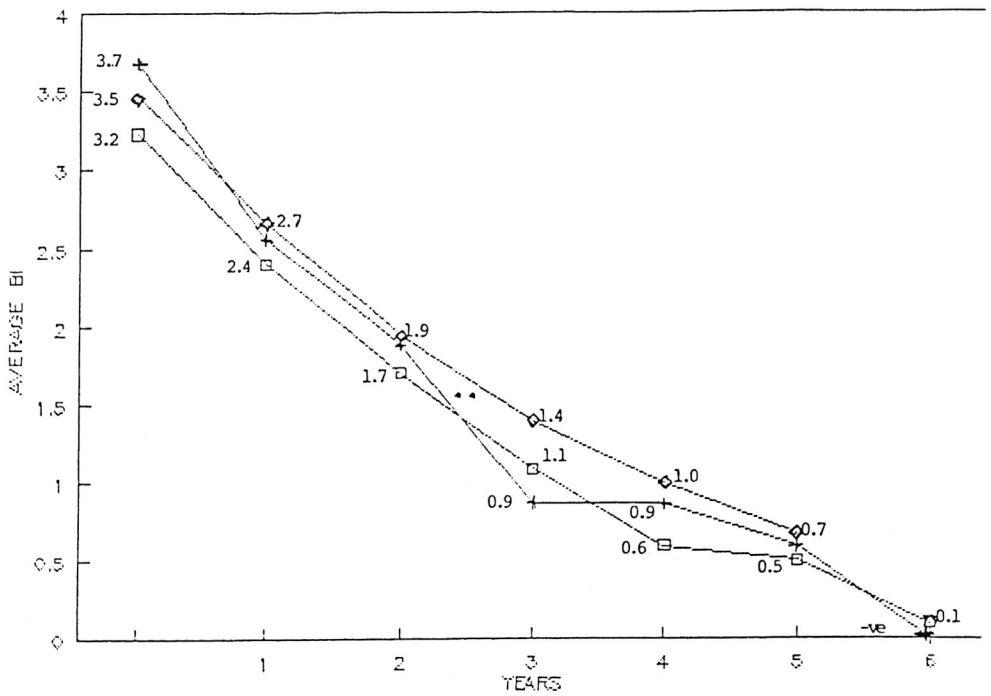

FIG. 1. Mean bacterial indexes over 6 years of 460 BL/LL patients completing FDT. □ = FDT for 12 months; + = FDT for 24 months; ◇ = rifampin + ofloxacin for 28 days.

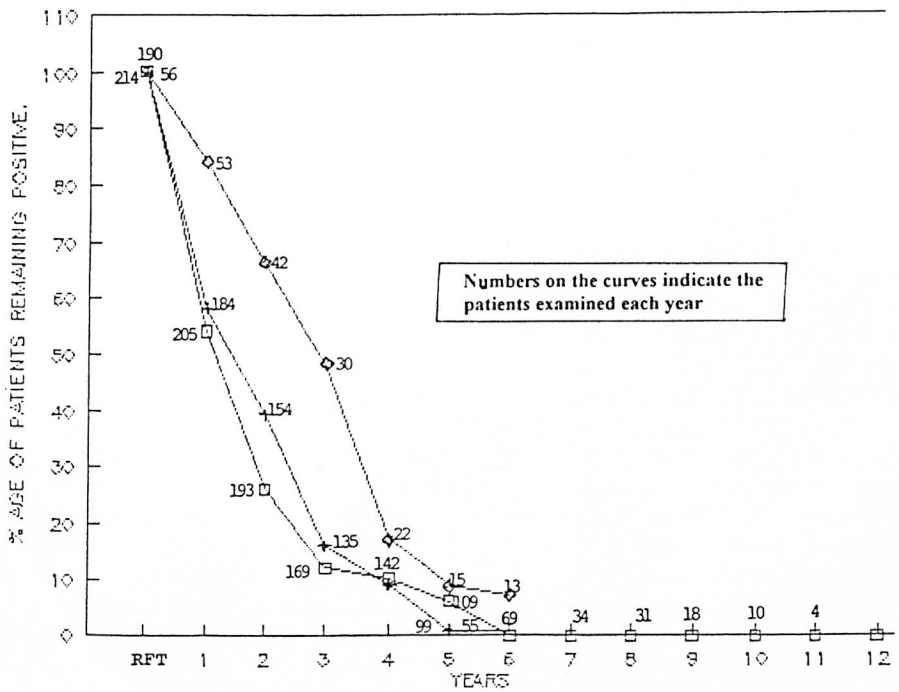

FIG. 2. Percentage of patients remaining positive at yearly intervals (depending upon the number of patients available for follow-up each year). □ = FDT for 12 months; + = FDT for 24 months; ◇ = rifampin + ofloxacin for 28 days.

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Homage to José Maria Fernández, M.D.

TO THE EDITOR:

José Maria Fernández was a distinguished Professor of Dermatology at Rosario State University Medical Center in Rosario, Argentina. Some time ago, at a memorial service in commemoration of the 30th anniversary of his passing, a commitment was made to publish his contributions to the progress of dermato-leprology. A brief summary of his work follows.

After receiving his M.D. degree, he was appointed to the Health Control Department of Prostitution in the city of Rosario, the second largest city in the country, and the most important port city in the Province of Santa Fe, Argentina. Deeply committed to his job, it did not take him long to become aware of the health risk his patients were running in those days (1929) when infection from venereal diseases, such as syphilis, gonorrhea, etc., was rampant. At the same time he soon realized how humiliating prostitution was. Thanks to his awareness of the problem and despite widespread racketeering, the local health authorities took the matter seriously and banned prostitution altogether. Shortly after this law passed in Rosario, a similar one was enacted nationwide. It was only after a fierce struggle against not only economic but also political interests that the aim was finally attained. Thanks to this, Argentina can take pride in having abolished prostitution.

Professor Fernández, together with Professor Salomon Schujman, was soon transferred to Carrasco Hospital in Rosario for the care of leprosy patients. Even though they were fully devoted to their jobs, frustration soon built up in young Fernández due to the limited and inefficient medication available at the time. In view of this, he devoted himself to the continuing search for ways to prevent leprosy.

He conducted a survey to find out about the different kinds of leprosy, the healthy population and the number of contacts and noncontacts. While researching this field, he observed the 48-hour reaction to the intradermal lepromin injection which he named the "early reaction" and which has since become most valuable for leprologists. This is a highly specific reaction, and a positive test denotes contact with the Hansen's bacillus and a capability to mount a defense against the organism. Consequently, it is more specific than the Mitsuda reaction which tests positive in healthy people with the immunological capacity to react, but who may have never actually been exposed to the bacillus.

In fact, whenever a person shows an injury-free skin anesthetic zone, an incomplete histamine reaction as well as an early positive lepromin test, there are no doubts about contact with the Hansen's bacillus. On the other hand, if the early reaction tests negative and the Mitsuda positive, the person has not been in contact with the Hansen's bacillus or, in other words, the anesthesia is not due to leprosy.

In case both the Fernández and the Mitsuda reactions prove negative, the patients should be carefully checked. To a certain extent, this is a reaction with diagnostic value and, as such, an outstanding contribution to leprology.

While carrying out in-depth research in this field, Professor Fernández observed different responses to BCG in leprosy pa-