Lack of Response to WHO/MDT; a Case Report by Habtemariam and Xabier

TO THE EDITOR:

The standard World Health Organization-recommended multidrug therapy (WHO/MDT) uses a combination of rifampin, clofazimine and dapsone for 24 months for the treatment of a multibacillary leprosy patient. The main rationale for this recommendation is to prevent selection of drug-resistant mutant *Mycobacterium leprae,* which is a certain possibility if any antileprosy drug is used as monotherapy. Any modification of the WHO/MDT is acceptable as long as this principle is strictly adhered to.

In this particular case (IJL:632–634;1993) it seems that this young lady, suffering from lepromatous leprosy, was sequentially treated with brodimoprim, rifampin, dapsone, clofazimine and ofloxacin, often as monotherapy between June 1991 and June 1993. During this period, the patient received the standard WHO/MDT for a period of only 2 months. This regimen was changed since the authors felt that ". . . the response to the antibacterial treatment was poor, i.e., there was no clinical regression of nodules and the reduction in the bacterial index and morphological index was poor."

It is clear that the authors were extremely anxious to cure their patient as quickly as possible but, in their enthusiasm, the patient was treated virtually with sequential monotherapy using different antileprosy drugs. Fortunately, the organisms remained sensitive to rifampin and clofazimine in normal doses. The presence of dapsone resistance was probably expected, given the high prevalence of both primary and secondary dapsone-resistant *M. leprae* in Ethiopia.

Finally, as far as I am aware, so far there are no confirmed reports of any multiple-drug resistance among leprosy patients treated adequately with the WHO-recommended MDT regimens.

—Dr. V. K. Pannikar

13 Rue de la Servette
1201 Geneva, Switzerland

Response to Comments by Dr. Pannikar

TO THE EDITOR:

We are quite aware that the World Health Organization-recommended multidrug therapy (WHO/MDT) is to prevent the selection of drug-resistant *Mycobacterium leprae* mutants and to improve compliance with treatment of patients by shortening the duration of treatment. The introduction of new antileprosy chemotherapy is still a need felt by many for reasons such as further shortening the duration of treatment.

Investigators have shown in mice that brodimoprim has profound synergism with dapsone against *M. lufu* (a species closely related to *M. leprae*) infection in killing even dapsone (DDS)-resistant bacilli.

Our patient was thus enrolled in the brodimoprim trial and received a 3½-month, short-course therapy. Due to her low response to this treatment, however, we had to resort to the treatment as mentioned in the paper, according to ALERT's Hospital policy for the management of highly infectious lepromatous leprosy patients coming from areas where MDT is not as yet implemented.

During the second episode of erythema nodosum leprosy, although the bacterial index reduction was not foreseen, the clinical improvement and the morphological index (MI) was expected to fall to zero, when treated with bacteriostatic drugs, let alone with a rifampin-containing regimen.

Contrary to our assumption, there was no clinical improvement and the MI remained as high as 4% at some sites. In view of 3 weeks of supervised daily rifampin, clofazimine and dapsone + daily dapsone and