Modification of Multidrug Treatment of Leprosy in Vanuatu

TO THE EDITOR:

Side effects of leprosy treatment with dapsone are said to be uncommon (2), but we recently reported a very high incidence of the dapsone (DDS) or sulfone syndrome in Vanuatu (4).

During the years 1988 to 1991, 9 leprosy patients in Vanuatu developed the dapsone syndrome and 4 of them died. During this 4-year period only 37 patients were started on leprosy treatment, an incidence of the dapsone syndrome of 24% with a fatality rate of 11%. All of the patients were given multidrug therapy (MDT) of daily dapsone (100 mg) and clofazimine (50 mg) and monthly rifampin (600 mg) and clofazimine (300 mg).

We have discussed the possible reasons for a high incidence of reactions in Vanuatu (4). We thought the apparent increase in the number of dapsone reactions in Vanuatu since MDT was introduced was probably due to the high starting dose of 100 mg of dapsone, possibly enhanced by the combination with clofazimine and rifampin and also due to a genetic susceptibility of Melanesians.

Dapsone reactions are seen fairly frequently in Australian Aborigines (personal communication, Dr. J. C. Hargrave, 1991), and there have been several reports of dapsone reactions from Papua New Guinea (PNG). Two brothers in PNG both developed the dapsone syndrome during leprosy treatment (1), and a rash developed in 4.6% of a series of 108 new cases of leprosy treated with dapsone in Port Moresby, PNG (3). An increased incidence of dapsone reactions since the introduction of MDT has also been reported in non-Melanesians (5).

Because of these frequent reactions, we had proposed to admit all leprosy patients in Vanuatu for the first 2 months of treatment. As a result we thought reactions would be picked up earlier and treatment could then be stopped, hopefully lessening the severity and likelihood of fatal reactions. We had also decided to start dapsone in a dosage of 50 mg daily, and increase the dose after 1 month. It was later decided to stop using dapsone in paucibacillary cases and to substitute daily clofazimine in its place.

However, there has been another death from a dapsone reaction in Vanuatu in a multibacillary leprosy case: A 72-year-old woman was admitted to the Northern District Hospital in Santo on 31 March 1992 with heart failure. She was noted to have facial and ear swelling. Skin smears were positive and on 10 April 1992 she was started on MDT. Unfortunately she was given dapsone in a dose of 100 mg daily. On 14 May 1992 she became feverish and unwell. The family requested her discharge and she went home off all treatment. She was brought back to the hospital on 19 May 1992 deeply jaundiced. Steroids were started but she died 2 days later on 21 May 1992.

Although we had decided to reduce the starting dose of dapsone given in MDT, because of this further fatal reaction the Disease Control Committee of the Department of Health in Vanuatu has recommended that dapsone should no longer be used in Vanuatu. Unfortunately, there is limited experience of the effectiveness of combination MDT regimens not using dapsone ([6]), but after discussion with the regional WHO consultant it has been decided to continue with MDT substituting ethionamide, or if intolerance to ethionamide occurs, minocycline, for dapsone.

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