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Letter to the Editor

Report on a 10 year follow-up study of 2 lepromatous patients treated for 1 year with standard multidrug therapy

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Sir

In an earlier publication (Job et al 2005) 5 and 6 year follow-up study of 2 lepromatous patients treated for 1 year multidrug therapy (MDT) was reported. They underwent radial cutaneous nerve biopsies which were studied histopathologically and with an electron-microscope. One patient was a polar lepromatous (LL) patient with bacterial index (BI) of 2.8+ and the other was a borderline lepromatous (BL) patient with BI of 3.37 +. The biopsies showed intraneural *M. leprae*, all broken and granular in histopathologic examination. But the electron-micrographs showed a few what appeared to be intact *M. leprae*. It took 4 years for the LL patient to reach BI negativity from 2.8+ and in the BL patient BI became negative from 3.37+ in 3 years. The level of cell mediated immunity decides the period taken for degeneration and absorption of *M. leprae* by activated macrophages.

Because of the suspected intraneural presence of apparently live *M. leprae*, relapse of the disease in one or both the patients was expected. In the earlier report there was a follow-up study of the patients for 5 and 6 years with yearly clinical examination, deformity grading and skin smear examination from 4 standard sites. They showed no signs of relapse. In this presentation follow-up study of these patients was for a total period of 10 years with yearly examinations. There was no evidence of relapse of disease. This report would add strength to the claim that 1 year of regular MDT to lepromatous patients is an adequate treatment to cure the disease. Organisms may persist and can be demonstrated in tissues but most if not all of them may be dead. Depending on the level of cellular immunity activated macrophages may clear the organisms from the tissues in varying periods of time.

Any attempt to reduce the duration of treatment in lepromatous patients on a mass scale as a policy should be done only after careful trials with follow-up studies. A recent publication (Rao et al 2009) emphasizes this fact clearly. Now that we know there is an effective during regimen to cure leprosy, use of this tool to eliminate the disease should not be compromised.

ln this connection a few comments based on my experience may be in order. St.Thomas Hospital and Leprosy Centre, Chettupattu had been responsible for leprosy control programme in 2 districts around our centre for the last 35 years multidrug therapy was implemented in this area from 1982. Now although the control programme

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is discontinued, there is an out-patient clinic in the hospital which draws patients from the control area. Skin biopsies of all new patients and nerve biopsies where indicated are done for diagnosis and classification for the last 17 years. The number of naw cases have come down considerably from 1982. However, in the year 2007-2008; there were 59 biopsies diagnosed as leprosy of which 21 had more than 3+ bacterial load. In 2008-2009, the number of biopsies reported with leprosy were 65 and of these 27 had more than 3+ BI. lt shows that in a rural area where leprosy control programme with careful administration of MDT to leprosy patients were carried out for over 25 years a significant number of new multibacillary patients are voluntarily reporting every year. The number will be higher if house to house survey was done. Leprosy is certainly controlled but not eliminated. Proper measures to detect patients in the early stages and administration of adequate MDT to all patients is mandatory. There should be no relaxation in measures to control the disease including deduction in the period of treatment until the number of new patients who come up every year is negligible.

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