COMMENT: REVERSAL REACTIONS IN LEPROSY AND THEIR MANAGEMENT

Sir,

Dr Rose and Dr Waters in their Editorial (*Lepr Rev*, 1991; **62:** 113–21) drew attention to the importance of the recognition of reversal reaction (RR) in the borderline group of leprosy and its management towards deformity prevention. I should like to make the following points on RR and its management.

1 The recognition of Type I, i.e. RR, downgrading reaction is a known clinical entity, more specifically observed in BB cases downgrading to BL and BL cases to LL cases. Such phenomenon is seen mostly in untreated BB cases, the 2nd and 3rd trimester of pregnancy, and in those with viral infections, which lower the cell-mediated immunity, are especially at risk. This RR downgrading is not strikingly symptomatic, but some signs are: oedema over the dorsal aspect of hand and foot; frequent appearance of new dermal lesions: and slow deterioration of the sensory and muscular

component of an affected nerve. The management of such cases does require steroids, but only 10–15 mg to begin with and then decreasing to 2·5 mg over 4–6 weeks.

2 In Type I, i.e. RR, upgrading reaction, the use of rifampicin as part of an antileprotic therapy is a matter for concern, especially in cases of BL downgraded from BT, where a parental clinical group shows a thickened nerve. This may even result in acute paralysis, with a marked increase of tenderness in the trunk nerve. This is because of further bacterial breakdown and availability to overcharged cell-mediated response in RR. Many cases of BT, BB and BL have developed foot drop and lagophthalmos. Undiagnosed leprosy cases are reported from leprosy endemic areas, which are being treated for tuberculosis with rifampicin and that have developed neuritis.

3 The concomitant use of rifampicin during RR is scientifically questionable. Rifampicin is known to reduce the cortisol level of the body by enhancing the production of the hepatic microsomal enzyme, which in turn increases the metabolic degradation of steroids and reduces the pharmacological effectiveness. Hence the steroid dosage may be required in a higher quantity.

4. Surgical management of RR for neuritis is a rewarding experience when 40–60 mg of steroid is administered for 4–5 days, with the requisite splints. If the pain does not subside, the case must be subjected to external neurolysis to prevent nerve damage. Leprosy centres should have surgical facilities and remain certain that such procedures prove to be highly beneficial. The ILEP Medical Commission should plan leprosy surgery workshops or courses for potential leprosy physicians.

5 Nonsurgical treatment should attract as much attention as steroid therapy in the management of RR cases. In India, more specifically Government controlled units, 20-bed hospitals for leprosy do not practise the splinting procedure.

Measures aimed at preventing the formation of deformities are: paralysed muscles should be rested in a functional, relaxed position and that inflamed nerves should be protected from mechanical injury for a period of 2 weeks. This should be followed by exercises, in the form of passive movements followed by active exercises. Maintaining a full range of passive movement of smaller joints—e.g. interphalangeal, metacarpophalangeal and intercarpal—in the hand and respective joints in the foot prevents the development of contractures. Massage helps in maintaining the blood supply and circulation to the affected area.

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