SINGLE-DOSE RIFAMPICIN, OFLAXICIN AND MINOCYCLINE (ROM) THERAPY FOR SINGLE LEPROSY LESIONS

Editor,

A single dose of drugs for the large number of single-lesion cases detected annually in endemic countries would help in keeping the elimination of leprosy on schedule. A multicentre trial involving 1381 patients followed-up for 18 months after the dose was published in the *Indian Journal of Leprosy*[1] and presented at the recently concluding XXth Biennial Conference of the Indian Association of Leprologists. Some of the participating centres presented the findings in their patients included in the trial. Comments on the trial and possible indications for single-dose therapy are given below.

The study did not consider: 1, site; 2, size; and 3, classification of the lesions as important factors when including the patients. The significance of these is considered with illustrations where available.

Site. In the clinical transparencies presented by one centre, there were at least two showing macular lesions on the face. It is well known that it is difficult to elicit sensory loss on face lesions on account of the rich nerve supply. Therefore diagnosis of macular lesions on the face poses a problem.

Certain sites, e.g. face, hands and feet are considered as strategic since regional nerve trunks, ulnar and lateral popliteal and when palmar and plantar lesions are present (not uncommon in some parts of South India) median and posterior tibial nerves are involved. Even though they may not be enlarged at the time of examination often *Mycobacterium leprae* lurk in these nerves. During therapy

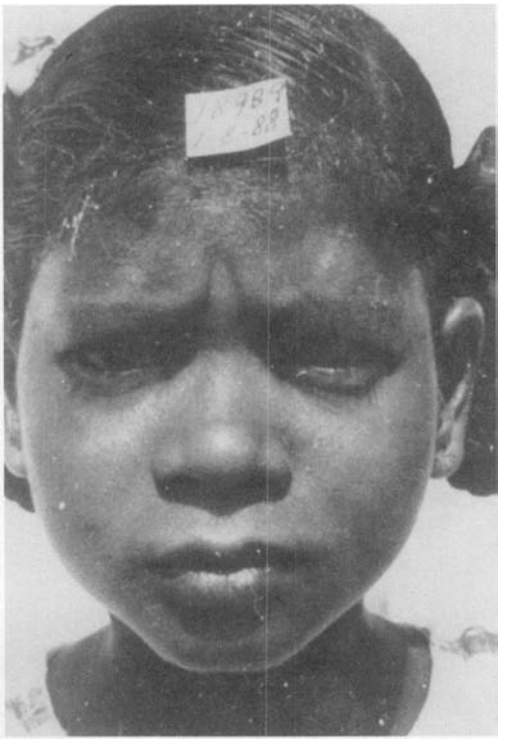

Figure 1.

or after as a part of reversal reaction acute painful neuritis may be encountered in these nerves. In the rifampicin, oflaxacin and minocycline (ROM) trial neuritis was observed in 3 cases. It would be interesting to have the incidence of neuritis according to site of lesions. The significance would be great when ROM is administered as routine and the patients are not seen afterwards resulting in disabilities.

Size. The larger the size, the greater the number of nerves involved in the dermis. Consequently the number of bacilli would also be more. Such lesions are also prone to reversal reaction; they would provide instances of treatment failure due to inadequate treatment.

This is illustrated in Figure 1, where a large BT lesion covers most of the race; the raised edge can be seen on both sides of the forehead. Powdery scales are the embers of a reversal reaction during paucibacillary multidrug therapy (PB–MDT). Steroid therapy stemmed the damage in the facial and trigeminal nerves, which could have resulted in lagophalmos and corneal anaesthesia followed by the dire consequence of exposure keratitis. Such a case is not suitable for single-dose ROM without followup.

Classification. In all the centres participating in the trial enough expertise was available for bacteriological examination. Only negative cases were included. Even so the clinical transparencies presented by two centres differed in clinical characteristics. One of the centres presented raised lesions with prominently thickened nerves, whereas another presented macular lesions. One of the lesions from the former, presented a lesion with rounded edges which could have been classified as midborderline leprosy.

Figure 2 shows a rounded lesion on the cheek with abrupt inner and sloping outer edges with a normal centre. The erythema denotes activity. A skin smear from the outer edge was positive for acid-fast bacilli (AFB) with a BI of 2. This was the only lesion observed.

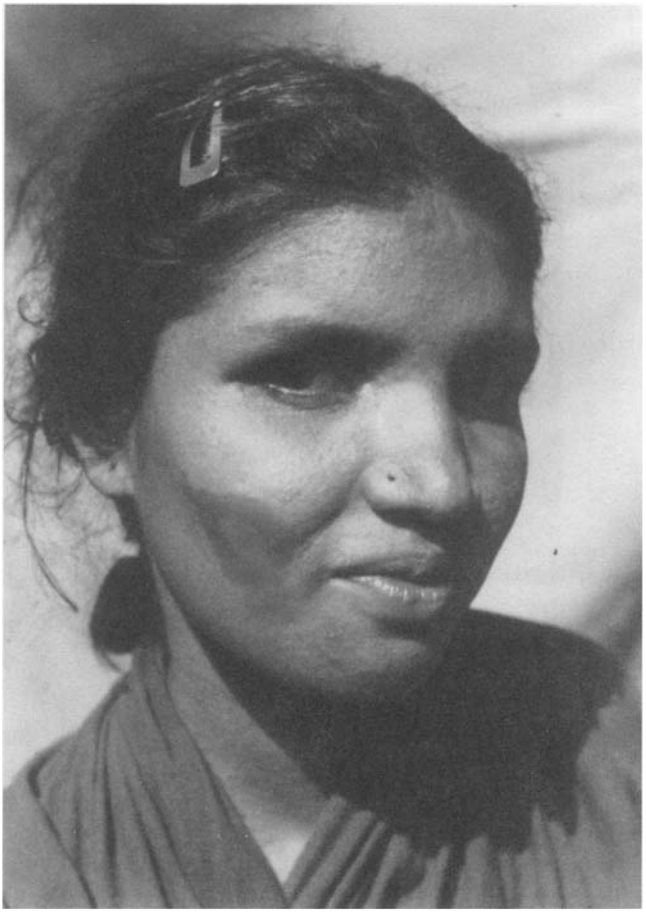

Figure 2.

Figure 3 is of a single lesion in one year after PB–MDT. An extension of the lesion can be identified where the previous edge can be seen, and beyond it another edge which seems to be in the process of advancing. The edge here and proximally is sloping. The surface is rugged. Sensations were impaired. A femoral cutaneous nerve can be seen coursing under the hypopigmend area of the lesion—BI 2 + Classification BL (histological) following treatment failure.

Figure 4 depicts a large hypopigmented lesion, flat, with ill-defined margins. Sensations were diminished—BI 1 + Classification (macular) BL.

These cases are presented to emphasize that all single lesions should not be considered as paucibacillary. It is also useful to remember that relapsed lesions of lepromatous or BL leprosy, particularly those flowing dapsone monotherapy, may present as single papules or macules or plaques. Skin smears would be strongly positive.

While the outcome in the trial as regards complications has been similar to that of PB–MDT, it should be noted that in PB–MDT the patient is under medical care for 6 months and under surveillance for 2 years. Patients after a single dose of ROM would be unobserved.

Indications for ROM single-dose therapy: Firm instructions on the use of ROM should be issued, perhaps on the lines given below:

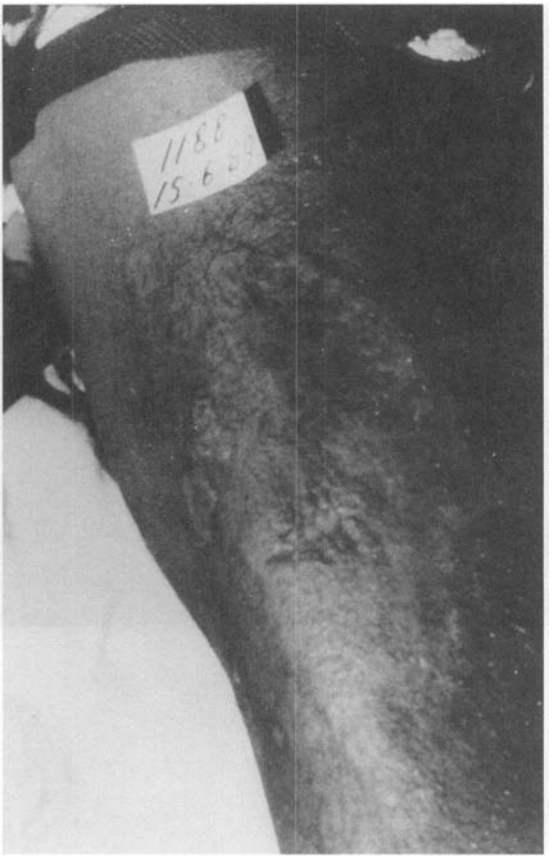

Figure 3.

1 A single dose may not be harmful in single nonleprosy lesions diagnosed as leprosy in the field.
2 Lesions with equivocal sensory loss. The usual advice is to keep the patients under surveillance till either signs of leprosy develop or the lesion disappears. ROM single-dose therapy might abort the lesion.
3 Early single macular lesions (Indeterminate) which are observed to heal in 11% of cases (Lara & Nolasco)[2] would benefit from the treatment.
4 Tuberculoid major lesions which were found to heal, scar or never downgrade in a study of the natural evolution or leprosy (Ramanujam)[3] are likely to respond early to treatment.

The above listed types of single lesions would cover nearly 95% of single lesions in the field. Five per cent of cases would call for care in classification and management to minimise disabilities and treatment failure.

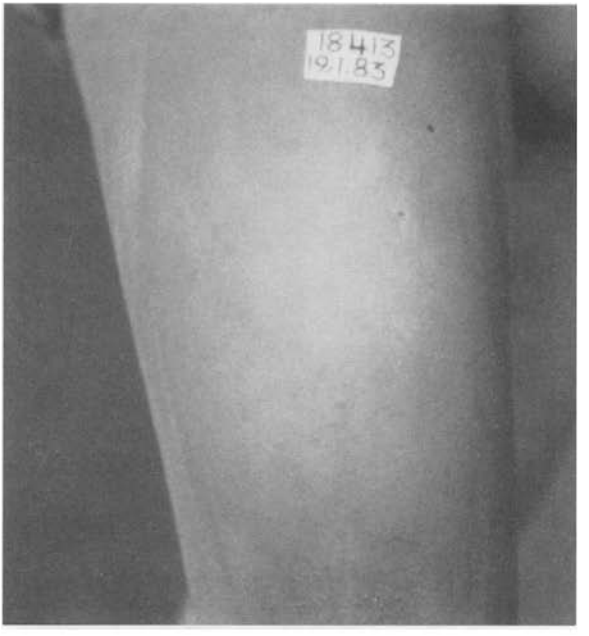

Figure 4.

130 GKNM Hospital
P. N. Palayam
Coimbatore 641 037
India

G. RAMU

References

[1] Single-lesion multicentre trial group efficacy of single-dose multidrug therapy for the treatment of single-lesion paucibacillary leprosy. *Indian J Lep*, 1997; **69:** 121–129.
[2] Lara CB, Bolasco JO. Self healing or abortive and residual forms of childhood leprosy and their probable significance. *Int J Lep*, 1956; **24:** 245–263.
[3] Ramanujam K. Findings of a nineteen year follow-up of children with untreated leprosy. In: *Proceedings of the XI International Leprosy Congress*, Mexico City, 1978. *Excerpta Medica* 1980, pp. 75–79.