

MULTIDRUG REGIMEN IN PAUCIBACILLARY LEPROSY FOR SIX AND TWELVE MONTHS (A comparative study)

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Efficacy of multidrug therapy (MDT) for paucibacillary leprosy for 12 months was evaluated in 91 fresh cases which included indeterminate (28 cases), tuberculoid (22) and borderline tuberculoid leprosy (41 cases). All were males and were hospitalised. The MDT consisted of rifampicin 600 mg once a month and dapsone 100 mg daily. Both drugs were given concomitantly for 12 months. At the end of 6 months, 37.2% cases remained clinically active. At the end of one year, 91.2% cases receiving MDT became inactive.

Key words : Leprosy, Paucibacillary, Treatment duration.

WHO in 1982 recommended a 6-month course of multidrug therapy (MDT) for all types of paucibacillary leprosy cases to reduce the duration of treatment and to obtain a quick cure of the individual patient using highly effective antimycobacterial chemotherapy.¹ This regimen consists of rifampicin 600 mg once a month and dapsone 100 mg daily for six months for paucibacillary leprosy which includes indeterminate (I), tuberculoid (TT) and borderline tuberculoid (BT) patients on the Ridley's scale diagnosed clinically and histopathologically with a bacteriological index of less than 2.

Several workers²⁻⁴ from India have found that the total duration of 6 months of MDT in various types of paucibacillary leprosy is insufficient. Hence a study was undertaken to evaluate the beneficiary effect of MDT for 12 months in paucibacillary leprosy.

Materials and Methods

Ninety one fresh cases of paucibacillary leprosy admitted to a leprosy centre from July 1984 to June 1986 were taken up for the study. The diagnosis was made both clinically and histopathologically. Lepromin test was performed in each case using Dharmendra antigen.

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The reaction was read after 48 hours and again on the 21st day. None of these cases had received any antileprosy drugs in the past.

All the patients were given rifampicin 600 mg once a month and dapsone 100 mg daily for one year. The patients were followed-up regularly every month. Assessments were made after 6 months and one year.

Clinical resolution was recorded as : (1) improvement, if there was complete disappearance of the signs of activity, or reduction of more than 1 cm in the size of the lesion, disappearance of erythema and/or induration or disappearance of satellite lesions, (2) increase in activity if erythema and/or induration increased, appearance of new lesions, development of thickening and/or tenderness of a peripheral or cutaneous nerve, and (3) regression if there was reduction upto 1 cm in the size of the lesion and decrease in erythema and induration of the lesion.

Results

Out of 91 cases, 28 had indeterminate, 22 had tuberculoid, and 41 cases had borderline tuberculoid leprosy. All were males. In the majority (94.1%), the duration of appearance of patch was not more than 12 months. Thirty eight (42.8%) patients had a single lesion and 53 (57.1%) had multiple (less than five) patches. All cases of TT, BT and 76.1% cases of indeterminate leprosy were lepromin positive.

Table I. Clinical improvement in different types of leprosy after 6 and 12 months of multidrug therapy.

| Type of leprosy | Number of cases with the disease after 6 months (a) and 12 months (b) | | | | | | | | |
|------------------------|---|---------|----------|--------|--------------------|--------|-----------|-----|-----------------------|
| | Inactive | | Improved | | Regressed (Active) | | Increased | | Total number of cases |
| | (a) | (b) | (a) | (b) | (a) | (b) | (a) | (b) | |
| Indeterminate | 15 | 28 | 11 | — | 2 | — | — | — | 28 |
| Tuberculoid | 8 | 21 | 9 | — | 5 | 1 | — | — | 22 |
| Borderline tuberculoid | 2 | 34 | 12 | 3 | 23 | 4 | 4 | — | 41 |
| Total | 25 | 83 | 32 | 3 | 30 | 5 | 4 | — | 91 |
| % | (27.4%) | (91.2%) | (35.1%) | (3.2%) | (32.9%) | (5.4%) | (4.3%) | — | |

At the end of 6 months of treatment, 34 patients still had active disease, and in four cases there was an increase in activity. At the end of one year, 83 (91.2%) patients had become inactive (Table I).

Comments

It is postulated that with rifampicin given in monthly doses, most of the organisms are killed, while the remaining organisms are destroyed by the cell mediated immunity which patients with paucibacillary leprosy do possess.⁵ Fifteen (53.5%) patients with indeterminate and 8 (36.3%) patients of TT variety became inactive after 6 months of MDT, whereas only 2 (4.8%) BT cases became inactive during that period.

All the 4 cases who had shown an increase in the activity after 6 months of MDT, regressed at the end of one year on continuation of MDT.

All the inactive cases did not show any evidence of reactivation at the end of one year. Four cases of BT leprosy were however still active after one year of MDT.

Thus, it seems that six months of therapy with rifampicin and dapsone is inadequate as also observed by various other workers.²⁻⁴ MDT should be continued for at least one year and preferably till all the signs of activity of the disease have subsided.⁶

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