

Leprosy in India. Vol. 26, No. 3, July, 1954.

Dharmendra and Chatterji (K. R.) present a study of the treatment of leprosy with thiosemicarbazone (T.B.1) in 112 cases covering a period of 38 months. Their own summary is as follows:

1. An analysis is presented of findings made during three years' treatment of 112 cases of leprosy with thiosemicarbazone.

2. Of the 112 cases, 87 were lepromatous and 25 non-lepromatous (15 tuberculoid and 10 simple maculo-anaesthetic). The duration of treatment was below 1 year in 39 cases, 1 to 2 years in 23 cases, and 2 years or above in 50 cases.

3. The initial adult daily dose was 25 mg., which was gradually increased up to a maximum of 200 mg. according to tolerance; in some cases the maximum dose had to be kept low (100-150 mg.), and in a few cases it could not be raised beyond 50 mg. About 10 per cent of the cases were found to be sensitive and intolerant to the drug even in very small doses (6 mg.), in such cases the treatment had to be discontinued.

" 4. Of the non-lepromatous cases, all except 3 were previously untreated cases. Of the lepromatous cases half (43) were previously untreated and the other half (44) had been previously treated with other drugs, mostly sulphones. In 27 of these cases thiosemicarbazone replaced sulphones which were discontinued, and in the other 17 it was added to sulphones which were also continued. In these 44 cases the change from, or addition to, sulphones was made from one or more of the following reasons: (i) sensitiveness to the drugs, (ii) lack of improvement, (iii) initial improvement later becoming stationary, (iv) persistence of sensory loss and deformities in cases who had otherwise improved under sulphones.

" 5. In the non-lepromatous cases the results of treatment were in general of the same order, as with the sulphones. However, because of its additional beneficial effects on neurological symptoms, thiosemicarbazone appears to be better than the sulphones. As in the case of sulphones, the results in 'tuberculoid' cases are better than in the 'simple' maculo-anaesthetic cases, in which the improvement is slow, any marked change being not seen usually before the end of one year.

" 6. Of the lepromatous cases there was little or no improvement in 19 cases, 9 of which were sensitive to the drug, and the other 10 could not tolerate more than 50 mg. per day. In the remaining 68 cases there was definite improvement (in the group on thiosemicarbazone from the start) or further improvement (in the two groups in which thiosemicarbazone replaced or supplemented sulphones). In 63 of these cases there was both clinical and bacteriological improvement, while in 5 only clinical. Restoration of sensation was seen in some, but the long standing and extensive sensory loss which was present in some of the cases of the last two groups did not respond to the change in treatment.

" The clinical improvement was assessed as moderate (definite subsidence of lesions) in 23 cases, and as marked (almost complete subsidence) in 45 cases. In 6 of the cases with moderate improvement the progress later came to a standstill.

" The bacteriological improvement was assessed as slight (B.I. to 1.5) in 15 cases; moderate (B.I. to 1.0) in 15 cases; and marked (B.I. to 0.5 and below) in 33 cases, 18 of which had become negative. In 7 cases with slight improvement the progress later came to a standstill; and in 8 cases with moderate and 2 cases with marked improvement, there was set back in the bacteriological status during later part of treatment.

" Of the 48 cases with anaesthesia of varying extents there was no restoration of sensation in 21, partial restoration in 20, and complete restoration in 7 cases. It can be concluded that (i) if the loss of sensation is very extensive and of long standing (over 10 years), it is not likely to be favourably affected by treatment with thiosemicarbazone (and of course not with the other drugs in use at present); (ii) if it is of moderate extent and not very long standing (below 10 years), it is likely to improve, but complete restoration is not to be expected; (iii) if it is limited to the patches and/or to distal parts of one or two extremities, and is of recent origin (below 5 years) is very likely to be restored, maybe completely.

" 7. As indicated above, of the 68 lepromatous cases which showed initial improvement, in 23 it was not maintained later. In 6 of these cases there had been only clinical and not much bacteriological improvement, while in the remaining 17 there had been both clinical and bacteriological improvement, 2 of them having become bacteriologically negative. Of these 17 cases, in 7 the improvement later became stationary, while in the other 10 there was actual deterioration (including the 2 cases which had become bacteriologically negative, but which later again became positive). Usually the stasis was first observed after 12 to 18 months' treatment, and deterioration after another 6 to 12 months.

" Further experience has confirmed the opinion previously expressed that with the doses now in use serious toxic manifestations are not very common. In a majority of cases there is seen a fall in the total W.B.C. and R.B.C. counts and in haemoglobin values in the early stages of treatment, with recovery to varying extent in the later stages. Allergic dermatitis is sometimes seen; it is usually mild and readily responds to antihistaminic drugs, but may occasionally be severe and necessitate the discontinuation of treatment. The serious toxic effects seen were sensitively to the drug, resulting in intolerance to even minute doses in about 10 per cent cases, and obvious signs of liver damage in 3 cases. No case was seen of agranulocytosis—a very serious toxic effect, reported by Lowe, resulting from thiosemicarbazone treatment.

" 9. Apart from the drug sensitiveness manifested by some cases, an important limitation of the method of treatment is the loss of efficacy seen in a proportion of cases after first year's treatment. Both these limitations have been encountered so far only in the lepromatous cases.

" 10. It may be concluded that in spite of the above limitations, thiosemicarbazone has a definite place in the treatment of leprosy. In cases who can tolerate adequate doses it produces satisfactory clinical and bacteriological improvement. However, in view of the loss of efficacy seen in a number of lepromatous cases later during treatment, it may be necessary to change over to sulphones after treatment with thiosemicarbazone for a year or so. Because of the comparatively short duration of treatment in the tuberculoid cases, this consideration is not likely to apply to such cases."

Dharmendra and Jagadisan each contribute an article on Social Aspects of Leprosy, which reflect conditions in India, where beggars with leprosy are so numerous, and where return to normal life of discharged patients is often difficult.

The article on B.C.G. in the prophylaxis of leprosy by N. de Souza Campos, is reprinted from the *International Journal of Leprosy*, previously reviewed in our Volume 25 (page 160). The rest of this issue is devoted to abstracts of literature and reports.