

REVIEWS.

Leprosy in India, Vol. XIX, No. 4. Oct. 1947.

A Plea for the Study of Social Aspects of Leprosy, by P. Sen. In this article the author advocates trained and organised procedures in order to assess the psychological disabilities of leprosy. The subject is one that has suffered considerable neglect in the past, and it is to be hoped that further studies may be made "in deepening our understanding and broadening the medical care of the Leper—the Unknown—to whose service we have dedicated ourselves." Of an author who makes this his ideal we can offer no criticism.

Erythrocyte Sedimentation Test not Necessary for Regulating Treatment with Hydnocarpus Remedies, by Dharmendra and N. Sen. A constructive study of cases showing that no special advantage in treatment is gained by periodic B.S.R. readings, and that the clinical condition of the patient is an adequate basis for dosage control. The authors claim that a rise in the B.S.R. in the absence of clinical manifestation can safely be ignored in ordering treatment. (The question is open to debate. The B.S.R. cannot replace

clinical findings. It is equally true that the experienced leprologists who write this article can gain little from the B.S.R. that their trained, clinical acumen has not already told them. But may not the B.S.R. be a valuable guide to less experienced workers? And may it not be a useful indication of the early onset of lepra reaction?—Ed).

Social and Economic Aspects of the Leprosy Problem, by T. N. Jagadisan. This article is divided into two parts. Part one deals with the psychology of the patient and the public in India on institutional problems, and the question of beggars with leprosy. Part two outlines a scheme for publicity and welfare work dealing with the educated public, the literate public and the illiterate villager. Suggestions are made for propaganda among leaders and students, for welfare work among patients both in sanatoria and outpatient departments, and villages for the care of healthy children of leprosy parents and for discharged cases. The article is a thoughtful one, deeply impregnated with the burning sincerity of the author.

This issue also includes the Classification Report of the Second Pan American Leprosy Conference. This report, with its advocacy of an Uncharacteristic Type, is already familiar to readers of the *Leprosy Review*.

Leprosy in India, Vol. XX, No. 1. Jan. 1948.

This is a special issue commemorating the All India Leprosy Conference, Wardha, held from October 30th to November 1st, 1947.

The proceedings of the Conference began with a broadcast message from Rajkumari Amrit Kaur, Minister of Health, Government of India. In her message she assured the help of the Ministry of Health of the Indian Government for the noble cause for which the Conference was meeting. This was followed by a welcome address by Shri Shrikrishnadas Jaju, and the Conference was inaugurated by the veteran social worker, Shri A. V. Thakkar. Dr. Jivraj N. Mehta then delivered his Presidential Address. Messages for the success of the Conference were read from Mahatma Gandhi and from the Governors and Health Ministers of several provinces. At this opening session speeches were made by Shri Kaka Kalekar, Shri Vinoba Bhave and Mr. Donald Miller. There were eight sectional reports on "Planning of Anti-Leprosy Work," "Leprosy Control in Rural and Urban Areas," "Leprosy Surveys," "Legislation on Leprosy," "Social and Economic

Aspects of Leprosy," "Leprosy in Children," "Treatment" and "Classification of Leprosy." The papers read at these Sections and the subsequent discussions form a wealth of practical experience which should be read carefully by every leprosy worker.

International Journal of Leprosy, Vol. 16, No. 1. Jan.-Mar. 1948.

A Proposed Study of Conjugal Leprosy with reference to Contagion and Hereditary Susceptibility, by W. Lloyd Aycock. A study of conjugal infection and also of adult infection in three war periods, as against the belief in familial inoculation and susceptibility. The author's figures and argument suggest that the incubation period is shorter in cases of familial inoculation, and longer in those where the infection is contracted in adult life.

Innumo-Biologic Anomalies in Leprosy, by Lauro de Souza Lima and Nelson de Souza Campos. After a careful and elaborate study the authors summarise as follows:—

"In general it is assumed that in patients reacting to the Mitsuda test the prognosis is good, while in those giving a negative result the prognosis is poor. The present paper records the actual findings in the patients observed over a period of years.

"In 1941, of 216 patients with the uncharacteristic type of leprosy, 60 were **negative** to the Mitsuda test. Forty-one, or 68.34 per cent. of these developed lepromatous leprosy prior to examination in 1946. Of 139 with a positive reaction 33, or 23.7 per cent, developed lepromatous leprosy **within** this period. It should be noted, however, that of those with a strong (3 plus) reaction a much smaller proportion developed lepromatous leprosy than of those with **weak** (1 plus) reactions. Nevertheless these findings demonstrate that the general assumption regarding the prognostic value of the test is by no means universally true.

"Among 685 patients with tuberculoid leprosy tested, 592, or 86.4 per cent. had a positive Mitsuda, 79, or 11.5 per cent. a negative and 14, or 2 per cent. a doubtful reaction. Of the positives, 17, or 2.9 per cent. developed lepromatous leprosy; of the negatives 29, or 36.7 per cent. and of those with a doubtful reaction, only 1.

"In some cases in both the uncharacteristic and tuberculoid types a change from a positive to a negative Mitsuda was observed, as well as a change from a negative to a positive. Among the former, transformation to the lepromatous type occurred in all except 1 patient. Of 12 changing from negative to positive, there were 3 who developed lepromatous leprosy in spite of the change of the Mitsuda reaction to positive." (It would seem **growingly** apparent that little or no comparative value can be placed on the Mitsuda reaction in comparison with more modern tests.—Ed.).

Antimony in the Treatment of Leprosy, by A. R. Davison. This is a study of nineteen cases of leprosy treated with antimony. The main indication is found in reacting tuberculoid cases, although certain lepromatous cases are also considered to derive benefit. The article is a frank and unbiassed one. (It would be of interest if Dr. Davison, in a further series, compared the action of greatly increased doses of hydnocarpus oil in reacting tuberculoids with that of antimony). The article is well illustrated.

A New and Rapid Method for the Control of Urinary Tuberculosis: Preliminary Report, by G. E. Slotkin. The report is summarised as follows:—

“ The *Mycobacterium tuberculosis* has a protective cell wall which can be definitely dissolved, we believe, and proven clinically by the use of esters of chaulmoogra oil. At the present time the more refined preparation of Moogrol is recommended because it is painless, more concentrated and stable. The clinical result of this ‘softening and conditioning process’ over a 30 day period warrant further investigation, not only in the urological tract, but in all types of tuberculosis, and especially where there is available an electron microscope to determine the effect of the dissolution of the waxy cell wall of the *Mycobacterium tuberculosis*. While the present series of cases is small, this study is preliminary and has only prevailed since early 1947, but the *in vitro* studies, the animal inoculation, and the clinical results have been so striking as compared to prolonged hygienic, sanatoria or routine tuberculosis regime as to warrant publication and further investigation.”

The results claimed by the author are remarkable. On the other hand, it is extremely difficult to believe that 10 c.c. of Moogrol injected over a period of seven days constitutes a “softening and conditioning process” for the treatment of chronic bilateral renal tuberculosis. Further confirmation of these very important claims is urgently required. The reader is advised to see Sir Leonard Rogers review on this article, printed elsewhere in this issue.

Manual of Leprosy by Ernest Muir, C.M.G., C.I.E., M.D., F.R.C.S. Edin. (pp. 208, figs. 70) Edinburgh: E. & S. Livingstone. 1948. Price 17/6.

This new work on leprosy is important as an expression of the latest views of a very experienced leprologist. The preface makes no reference either to a number of editions of Muir’s early small handbook on Leprosy published in India or to his clinical description of the disease and its treatment in the third (1946) edition of “Leprosy” (Rogers and Muir) with which the present work must be compared to bring out the advances now dealt with in a new book, which is three-fourths as long as the earlier one; the reduction being due to history, bacteriology, mode of infection and prevalence being dealt with in 17 pages. The remaining sections are as full as in “Leprosy.”

The most important features of the present work are firstly, a good description of Resistance and Tissue reaction, in which the suggestion that reactions are due to multiplication of the lepra bacilli in the tissue is rejected and the process is considered to be an allergic one. Mention of the wholesale destruction of lepra bacilli (which was demonstrated in reactions produced by hydrocarpus injections by Rogers just 30 years ago) is omitted in the

present account. More important is a new and full account of the different types of leprosy under the recent scientific South American classification as "uncharacteristic," tuberculoid and lepromatous, which can only be determined by histological examinations. This section is well illustrated by photos of cases, most of which are new, together with coloured histological sections illustrating the relationship of the bacilli to tissue cells and other changes. The much discussed and difficult question regarding the frequency with which one type may change into another is considered to require much further work for its elucidation.

Part II deals with diagnosis, prognosis and treatment on similar lines to those of the earlier work, except as regards treatment, to which chapters are devoted on resistance and general health, hydnocarpus and sulphone treatment and surgical and auxiliary treatment: all within 30 pages. This section is somewhat disappointing. Either pure fresh hydnocarpus oil or its esters are advised in tuberculoid cases. Reference to the convenient and cheap sodium hydnocarpate (alepol) is omitted. Hydnocarpus treatment is advised to be given in courses of two or three months with intervals between them and no maximum quantity is suggested. This is contrary to the opinions of several recent workers, who have stressed the necessity for continual treatment by this drug over long periods and in maximum doses if the best results are to be obtained. Hydnocarpus must also be used at present in most of the "uncharacteristic" and lepromatous cases. In the treatment of both 'uncharacteristic' and lepromatous cases sulphones are advised when available, and little is added to our knowledge of their use beyond that recorded in "Leprosy" (1946) except for the results from the use of the newer preparation, sulphetrone. The use of these newer remedies is much restricted by the necessity for hospitalisation of the patients until such time as the dangers of reactions and toxic anaemia under full doses have passed, which may take many months.

Part III deals in a full and practical manner with Anti-Leprosy Campaigns, such as the Propaganda-Treatment-Survey plan of the author in India, and the Nigeria system of Davey, in which infective cases are isolated with treatment in special villages under a voluntary system, advanced cases treated at a central settlement and very large numbers of early ones in numerous out-lying clinics. A plan is suggested for the central leprosarium and other points of practical importance are dealt with. This is a valuable section.

It will be seen from the above review that this work will appeal specially to the more expert leprologists with facilities and staff

for histological examinations on a large scale. In the case of less fortunate workers with no such opportunities, and dependant on clinical diagnosis only, the valuable and scientific histological classification and description of the types of leprosy will be liable to result in some confusion.

L.R.

(Abstract of) *A New and Rapid Method for the Control of Urinary Tuberculosis: Preliminary Report*, by George E. Slotkin, Jour. of Urology 58, 464 and reprinted in Internat. Jour. of Leprosy, 16, 29. (1948). This is a report on the combined use of chaulmoogrates and streptomycin, in inoperable or bilateral renal tuberculosis. The highly toxic streptomycin has been shown to have a bacteriostatic rather than a bacteriocidal effect on tubercle bacilli, with a tendency to develop resistance to the drug. In January 1947 the combined new treatment with chaulmoogrates and streptomycin was commenced with striking results and disappearance of the tubercle bacilli with spectacular clinical improvement within 30 days. The resistance of tubercle and lepra bacilli is due to a protecting waxy cell wall, which may be dissolved by chaulmoogra oil. (This was first demonstrated by L. Rogers and illustrated by a *coloured plate* of broken-down lepra bacilli in the Indian Journal of Medical Research, 1917-18, 5, 277. See also Lancet, 1948, Apr. 3, 1948).

Slotkin goes on to describe experiments in vitro of chaulmoogra oil on Mycobacterium with inhibition of its growth and in rendering it more sensitive to streptomycin after exposure to 2,500 dilutions of the oil for 24 hours. Treatment in guinea-pigs infected with tubercle bacilli with good results from the combined drugs is also recorded.

CLINICAL RESULTS. Six consecutive cases of inoperable genito-urinary or double renal tuberculosis, all verified by finding tubercle bacilli in the bladder or ureter urine and by positive inoculations of guinea-pigs, were treated by daily intramuscular injections of 1 to 2 c.c. of chaulmoogra oil or of ethyl ester chaulmoograte in the form of moogrol (B.W. & Co.) for 30 days, together with 1 gm. of streptomycin from the 7th to the 30th day. In every case the frequent urination and other symptoms cleared up within 30 days (in one case in two weeks, after which the patient insisted on leaving hospital symptomless) and in all the urine became negative to T.B. on smear and by guinea-pig inoculation.

The author concludes that the protective cell wall of tubercle

bacilli can be definitely dissolved by the use of esters of chaulmoogra oil, which can be demonstrated with an electron microscope. The clinical result of this "softening and conditioning process" over a period of 30 days warrant further investigation in all forms of tuberculosis. The present series of cases is small, "but the in vitro studies, the animal inoculation and the clinical results have been so striking as compared to prolonged sanatorial or routine tuberculosis regime as to warrant publication and further investigation."

L.R.