

LEPROSY IN MALAYA

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This report is a brief statement of the status of leprosy activities in Malaya, which includes both the Straits Settlements and the Federated Malay States. Data relating to numbers of cases and treatment refer to the year 1932 especially.

GENERAL

Population and occupations.—Malaya has a population of over 4,385,000, of whom 1,700,000 are Chinese and over 620,000 are Indians; Malays number 1,644,000. The Chinese and Indians are to a great extent non-settling immigrants, and most of the leprosy in the region is found among these non-Malaysian people. The principal occupations are agriculture and the rubber and tin industries. Until recently these have provided a comparatively high scale of living.

Climatic conditions.—Maximum shade temperature in Malaya rarely reaches 97° F., and 100° F. has never been recorded. Humidity is high—90 per cent—throughout the year. Seasonal variations are mild, rainfall being well distributed throughout the year and abundant—about 100 inches per annum, with wide variations. Vegetation is always luxuriant.

LEPROSY ACTIVITIES

Leprosy law.—The legal enactment relating to lepers in Malaya prohibits their following trades or callings that might spread infection, prohibits the use of public conveyances, and requires that every leper be in isolation. This may be either privately—under Government supervision—or in a leper settlement. Segregation is carried out and the majority of obvious lepers are probably isolated. As for the number of cases, it does not seem likely that they amount to more than 0.01 per cent of the total population of Malaya.

Leprosy institutions.—The two principal leprosy institutions are the Pulau Jerejak and Sungei Buloh Settlements, these being the isolation places for the Straits Settlements and the Federated Malay

States, respectively. The former is located on an island near Penang. The latter, a few miles from Kuala Lumpur, was opened only recently, it having been built to replace the old one in the town. There is a small but first-class detention station near Singapore, from which patients are transferred to Penang.

SINGAPORE

Detention station.—Though this is neither a large station nor one of permanent isolation, general and special treatment is given and intercurrent diseases are dealt with. At present the main special treatment is the combined intramuscular and intradermal use of chaulmoogra ethyl esters. Periarterial sympathectomies were done during the past year (by Drs. K. Black and Winstedt) on seven patients with acroteric lesions. Healing took place in all cases within a month, but four of the cases relapsed.

Outpatient clinic.—Outpatient treatment of lepers has been established in Singapore in the clinic for skin diseases in the General Hospital. Early cases are treated with (a) alepol intravenously, (b) hydnocarpus oil intradermally, and (c) hydnocarpus-pills as used in French Indo-China. However, the same difficulties have been encountered as in other places, the principal one being that of enforcing regular attendance. This problem is accentuated in Singapore by the large percentage of floating population, which makes this work on modern lines much more difficult than it would be with a stable population. It is impossible to assess much of the results.

PULAU JEREJAK SETTLEMENT

General.—This island settlement near Penang, the isolation center for the Straits Settlements (Dr. K. V. Veerasingham in charge) accommodates between 700 and 800 patients. The institution is divided into separate camps for early or late cases. There is electric installation in all buildings. Special anti-malarial oiling is carried out and no case of malaria occurred during the past year.

The patients, the majority of whom are Chinese, are supplied with a balanced and generous diet by the Government and are gradually producing more and more for themselves. Small salaries are paid to a number of able-bodied lepers in return for work, and there is a good deal of general cultivation and rearing of poultry and pigs.

The patients conduct quite a number of musical and dramatic entertainments, displaying a good deal of ingenuity and energy in this connection.

Treatment.—Considerable care is taken with the routine treatment work. With intradermal and intramuscular use of the ethyl esters, 10 per cent of the cases became bacteriologically negative during the year and 25 per cent in all showed definite improvement. The results seem much the same wherever modern treatment is carried out in Malaya. About half the cases treated show only slight improvement, a quarter are uninfluenced by treatment or are worse, the remaining quarter show some degree of progress.

SUNGEI BULOH SETTLEMENT

General.—This institution near Kuala Lumpur, the capital of the Federated States, accommodates about 1,000 inmates. There were 996 at the beginning of 1932 and 1,082 at the end, the admissions being 353. There are two European physicians—the writer and Dr. E. S. R. Alfred, Assistant Medical Officer, in charge of treatment—and a European matron. The rest of the staff consists of four trained healthy dressers for laboratory and outpatient work, three trained leper nurses, sixteen trained male leper nurses and a number of attendants, field workers, and others.

Treatment.—About 700 of the patients receive routine treatment. During the past year courses of alepol were given to 80 patients. The average number of injections was 35 per patient; these were given intravenously in doses up to 5 cc. None of these patients showed any marked improvement and only about one-third showed any benefit at all. Nearly two-thirds (62 per cent) either showed no change or were worse. This treatment is therefore not being continued here.

About 350 patients received regular courses of *tai foong chee*. Forty per cent of these cases showed no improvement or were worse, and 60 per cent either claimed they were better or were observed to have improved. We are definitely of the opinion that *tai foong chee* is unsafe for early cases, as there is definite risk of exacerbating the disease. However, the benefit to late cases is undoubted, and the ease with which it can be administered is an important point in its favor.

Regular treatment by intramuscular injections of chaulmoogra ethyl esters was given to 225 cases during the year. There was definite improvement in 62 per cent. Regular courses of intradermal and

intramuscular injections of the esters were given to 80 cases, of whom 89 per cent showed improvement.¹

Miscellaneous.—Lepra reaction occurred in 140 cases during the year. The routine treatment of nerve pains by ephedrine was supplemented by injections of *Calophyllum* or "dilo" oil, given intramuscularly in 3 cc. doses. This treatment has been found very satisfactory.

The sera of 690 patients were tested by both the Wassermann and Kahn reactions.² Of these 300, or 43.5 per cent, gave positive reactions with both tests. Further investigation is being made on this matter, but at present it is considered that it is unlikely that this large percentage of positive reactions is definitely luetic.

There were 61 deaths during the year, and post-mortem examinations were made in 33 instances. In 32 cases there was post-mortem evidence of nephritis.

¹In this report, the draft of which was prepared for the JOURNAL on request, no mention is made of the research on treatment that had recently been carried on by the writer. A condensation of his report of this work, which appeared in a recent issue of the *Transactions of the Royal Society of Tropical Medicine*, is included in this issue of the JOURNAL.—EDITOR.

²These tests were made by the Institute for Medical Research, in Kuala Lumpur.