

REPORTS

Report of the Japanese Leprosy Foundation for 1954

The leprosy relief programme in modern Japan was initially carried out by religious workers of Japanese and foreign nationalities. In 22nd year of Meiji (1889), the French missionary Father Testevide established the Koyama Fukusei Hospital at Gotemba, Shizuoka Prefecture, and Miss Hannah Riddel started the Kaishun Hospital at Kumamoto City; in 39th year of Meiji (1906), Japanese bonze Rev. Ryumyo Tsunawaki established the Minobu Jingyo-en.

In accordance with the first Leprosy Prevention Law, which was enforced in 40th year of Meiji (1907), five public leprosy institutions were established by joint administration of several prefectures and institutionalized the leprosy patients. In 5th year of Showa (1930) for the first time, a national leprosarium was constructed, and in 16th year of Showa (1941), the aforementioned leprosy institutions by prefectures were transferred to the national government, and the programme for leprosy was put on the proper track.

In addition to these, the programme for leprosy was greatly promoted by the patronage of the Imperial Household. Especially Her Late Majesty The Empress Teimei gave countless contributions for the leprosy patients and concerned Herself about their welfare. After Her decease on 17th May of the 26th year of Showa (1951), the entire property was donated to the Leprosy Prevention Foundation for the welfare of the leprosy patients, and Her belongings were given to all leprosaria.

The estimated number of leprosy patients in Japan in 1953 was 15,000, out of which 10,129 are institutionalized in leprosaria. There are 1,077 leprosy patients registered but not institutionalized. The estimated number of non-registered leprosy patients is, consequently, 3,378.

As for the number of beds in leprosaria, eleven national leprosaria have 12,800 beds, three private institutions have 291, making the total beds for leprosy patients as 13,091.

The gradual decrease of the number of leprosy patients in Japan is shown by the fact that, whereas in the census of 1904 30,393 leprosy patients were identified, the present number of leprosy patients has decreased to about half, or, allowing for the increase of population and the ratio of occurrence to population, to about one-third. However, there are still many leprosy patients non-institutionalized who are a source of infection. It is urgently desired, therefore, to institutionalize them all as soon as possible.

As for the treatment of leprosy, Chaulmoogra oil has been substituted by DDS derivatives, and at present, Promin, Promizol, Diason are commonly used.

The whole of the leprosy patients in leprosaria are taken care of free of charge by the government. Non-infectious children, who have no relations, are taken into the eight children's institutions (capacity: 355) attached to the national leprosaria. In are in need, assistance is given in accordance with the Leprosy Prevention Law. For the aged persons in leprosy patients' families who have no relations, a special institution (capacity: 74) is provided at Kumamoto City.

Fiji Leprosy Hospital, Makogai

In the Report for 1954, the Medical Superintendent, Dr. W. H. McDonald, gives the number of patients at the end of the year as 647. Of the 13 different racial components of this number, the largest is Indian, being 203. There were 57 admissions during the year, 7 were readmissions. It is mentioned that 99 of the patients had received treatment with sulphone derivatives during the year; "at the end of the year nearly all the patients were receiving DDS".

Many of the patients from American Samoa who were formerly in Makogai have been returned to their native land, where there is now a leprosarium with 23 patients.

Leprosy Regulations in England (from Report of the Ministry of Health, presented April, 1953).

The Public Health (Leprosy) Regulations, 1951, came into operation on 22nd June, 1951. Under these Regulations leprosy is directly notifiable to the Chief Medical Officer of the Ministry of Health. This is to enable the patient to receive such specialized examination and treatment as his illness requires, and for this the notifying practitioner is approached by the Minister's consultant adviser in leprosy with an offer to see the patient in consultation with him and discuss the arrangements necessary for his treatment and care.

The Regulations came into operation simultaneously with the opening of the Jordan Hospital, near Reigate, for the reception of lepers resident in this country. This hospital, with beds for 18 patients (8 females, 10 males) is administered by the University College Hospital group of hospitals for the Ministry of Health.

Not every sufferer from leprosy requires hospital care, nor is every patient infectious. The problem presented by the infectious patient is rather that of caring for and treating him and of pro-

tecting his immediate family contacts, than of taking widespread measures to protect the healthy community. Whenever the particular circumstances necessitate, the Minister's consultant adviser discusses the case with the medical officer of health. At the time of the preparation of this report (spring 1952) there are just over one hundred known cases of leprosy in England and Wales.

Annual Report of Calcutta School of Tropical Medicine, 1954

[The following extracts will be of interest to our readers.]

Effect of BCG Vaccination on the Lepromin Test.—More than two years ago 64 healthy persons, negative to both the lepromin and the tuberculin tests, were vaccinated with BCG by the intradermal route. They were re-tested 3 months after vaccination and again at 1-2 years intervals. The results of this study are shown in the following table:—

Nature of the Test	Number of persons tested	Initial results		Post-vaccination results			
		—	+	After three months		After 1-2 years	
				—	+	—	+
Lepromin ...	64	64	0	36	28	2	62
Tuberculin ...	64	64	0	4*	60	16†	48‡

* Were re-vaccinated with BCG and later became tuberculin+.

† All out of the 60 cases which were found to be positive on testing 3 months after BCG vaccination. Some of these again became positive when they were re-vaccinated.

‡ Includes four cases which remained negative after first BCG inoculation but which became positive after re-vaccination; the remaining 44 are out of the first 60 cases which had become positive after first BCG vaccination, the other 16 having again become negative (*vide* note † above).

It will be noted that in case of the lepromin reaction the number of positive reactions is much higher 1 to 2 years after the vaccination than 3 months after vaccination, and that there has been no reversal in a positive lepromin reaction induced by BCG. In case of the tuberculin test on the other hand the number of positive reactions 3 months after the vaccination was considerably higher than that 1 to 2 years after the vaccination, and that in 16 of the 60 persons the BCG induced tuberculin positivity disappeared during the following two years.

It would appear that the BCG induced positive lepromin reaction persists quite long, at least for 2 years, and possibly much longer. If this change from a negative to a positive lepromin reaction has a protective value against leprosy, it is not likely to be of a transient nature but is likely to be of real value as it lasts for a considerable time. However, it is yet to be proved whether this induced sensitivity to lepromin confers any protection against the disease; and this can be done only by well-planned and long term field experiments.

Intra-cellular lipoids in the various types of Leprosy.—Last year a study was reported on the significance of the presence of intra-cellular lipoids in the various types leprosy. The study was continued during the period under report and the following conclusions have been arrived at. In sections stained with Sudan III, coarse orange coloured granules (lipoid granules) are found in a majority of the lepromatous cases and are confined to such cases. They are absent from quiescent or reacting tuberculoid cases. It is concluded that presence of such granules offers an additional evidence to the lepromatous nature of the lesion.

Leprous lesions of the fundus of the Eye.—This study has been carried out in collaboration with Major E. J. Somerset, ex-Professor of Ophthalmology, Calcutta Medical College. In addition to looking for lesions on the fundus, a note was made on the presence of leprosy lesions on the cornea or iris.

Two hundred and forty-six lepromatous cases have been included in the investigation, and examinations were made after dilating the pupil with homatropine drops. In all the cases the disease was moderately to markedly advanced (L_2 or L_3 cases), and the duration of the disease varied from 2 to over 10 years. The cases were not specially selected and represent a fair cross section of the lepromatous cases as seen in Calcutta.

Only in two of the 246 cases were nodules found in the fundus, the condition being thus very rare. The small nodules seen in the fundus in these 2 cases, were very much like the nodules seen on the iris. They were about 0.25 mm. in diameter, yellow in colour, with smooth rounded outline, homogeneous surface, and appeared to protrude forward in the vitreous.

Lesions of the cornea or iris, or both, were seen in one or both eyes in 65 cases (26.4 per cent). Signs of iritis (with or without corneal lesions) were seen in 15 per cent of the cases in one or both eyes. Iritis is a potent cause or more or less preventable blindness, and the fact that it was found in 15 per cent of the cases brings out the importance of routine eye examination in lepromatous leprosy, especially because early symptoms of iris involvement are very slight.

The Campaign Against Leprosy in the Belgian Congo in 1955

Dr. Kivits writes a most interesting report on the efforts that are being made to control leprosy. In the total population of over 16 million in the Belgian Congo and Ruanda Urundi, it is calculated that there are about 274,000 with leprosy, of which 220,574 are under treatment. About 86 per cent of these are treated as out-

patients by general practitioners, polyclinics and temporary injection centres. There are 112 leprosaria in which there are 31,268 patients. The writer has found difficulties in establishments for the care of children of patients; the difficulty of obtaining enough suitable personnel to look after the children, and the fact that children brought up in such establishments are not adapted to normal social life outside. He believes rather that children should be given whatever benefit there is by vaccination by BCG. Whatever advantage there is in confining children to institutions, is countered by the high mortality. Experimentally partial isolation may be tried, allowing the mothers to suckle their infants, and thus avoiding artificial feeding. The tendency at the present time is to give priority to mass treatment rather than to treatment in leprosaria.

Leprosy in Malta. Report of Medical Health Department, 1955, p. 32.

There are at present 150 known cases of leprosy in Malta and Gozo. The number notified during the year was 14. Of the 150 there are 77 inpatients and 73 outpatients. Of the inpatients, 68 are classed as lepromatous. 32 patients with lepromatous disease were discharged at their own request during the year.

Leprosy and Tuberculosis in Sierra Leone

A general medical survey of Tonkolili and adjacent valleys in Sierra Leone was made by O. F. Conran and A. Conran, as arranged by an industrial development company. Their findings on Leprosy and Tuberculosis are summarized as follows in *The Journal of Trop. Med. and Hyg.* (Vol. 59, No. 12, Dec. 1956).

Seventy cases of leprosy were found. Of these, seven were frankly lepromatous, the remainder were mostly polyneuritic-tuberculoid, and several could not be classified satisfactorily.

The disease was most frequent at Kamadugu and Sokoya. In the former the village had suffered a period of overcrowding during the time of the gold mining operations some 20 years ago. In the latter standards of nutrition and cleanliness were low and housing was poor, and close contacts under these conditions are the vital factors in the spread of the disease.

The infected persons were eager to be treated, and the section chief at Kamadugu has ordered that they shall all take the treatment offered.

Thus 3.4 per cent of the population have the disease. The distance of their villages from government medical headquarters makes it impossible for many to come for treatment each week and

it is therefore necessary to take the treatment (oral sulphones) to them. To this end a leprosy register has been made and two medical orderlies detailed to visit all cases weekly and give the treatment.

Tuberculosis. Only three cases of open pulmonary tuberculosis were found, two at Kamadugu and one at Dalafe. Throughout the valley there were 12 further suspects, but the diagnosis could not be proved in the absence of X-ray facilities.

The Mission to Lepers. Report of Work in India, 1955-56.

At the Karigiri Centre (near Vellore), Mr. Fritchi reports the following subjects under investigation:

1. The study of the nature of the nodule of reactive leprosy, the nodule of erythema nodosum leprosum.
2. The action of some of the cortisone group of drugs for intractable reaction which is resistant to all the established methods of treatment.
3. The hormones in cases of gynaecomastia and the correlation between the incidence of this condition and degeneration of (a) the spermatogenic and (b) the interstitial elements in the testes.
4. The study of the effects of nerve damage on the extremities with a view to determining the nature of " trophic " changes. This work is being done in association with the Hand Research Department of the Christian Medical College under Dr. Paul Brand.
5. The treatment of the collapsed nose in leprosy and various methods of plastic reconstruction now available to us.
6. The continued new developments in the reconstructive surgery in leprosy being done in association with Dr. Brand here and in Vellore.

A note from Dr. Brand says:—

During the past year the orthopaedic work has expanded both in volume and in scope. Hand and foot reconstruction work is now engaged in at six centres.

In some of the new centres it is not easy for a newly trained surgeon to get started. It is easy to do good surgery in a fully equipped Medical College with trained anaesthetists and trained assistants and a good operating theatre. It seems quite different when there is no anaesthetist and when the surgeon himself has to train his own assistants and supervise the organization and asepsis of his operating theatre. We need to give all the help and encouragement we can to these new young surgeons in these difficult situations.

New operations have been devised and some have already become established procedures. Our present routine for hand reconstruction is quite different from what it was three years ago, and we are happy to be able to report that the new operations are proving very definitely better than the old. We recently carried out a very extensive and thorough survey of our old cases, those who were operated three, four and five years ago. One hundred and fifty of these have been traced and re-examined and compared both with their original condition and with the immediate results of the operation. It has been very gratifying to find that seventy-five per cent of them showed a good result in spite of the difficulties and hazards through which some of these hands have had to pass. In general, it can now be stated that hands that are properly used and kept active following operation, continue not only to remain strong, but actually to improve their range of movement in the years that follow.

Greater attention has been focused on the reconstruction of the face, and we are operating on a number of deformed noses. We are hoping for the skilled advice and co-operation of experienced plastic surgeons in this field.

Leprosy patients get very distressed when they lose their eyebrows. Their distress is due partly to the fact that eyebrow baldness is widely recognised as a sign of leprosy. It is a mark that they will never lose, even when the disease is arrested. We are now happy to be able to assure patients that there is an operation which will give them a pair of healthy and vigorous eyebrows. The only disadvantage of the new eyebrow technique is that the patient needs to trim his eyebrows much as he would trim his moustache; otherwise they will grow so long that they may obstruct his vision! Fortunately this extra virility of their eyebrows seems to be source of pride rather than of sorrow to their owners.