
This report on pages 43-45 contains summarised figures for leprosy work by districts and provinces, and figures for those in treatment villages. In the four provinces of Uganda the intake of leprosy patients had reached 62,003 by December 1958. The total of discharged cured was 5,217 in December 1958. Total absentees were 19,682, and the estimated number attending was 32,217 at December 1958. The Treatment Villages in the 4 provinces were 76 in number, with accommodation for about 4,414 patients. Three have been closed. Leprosaria are 5 in number, with a total intake to December 1958 of 14,852 and total discharges of 2,612 to that time. The total absentees were 5,512. The estimated number in attendance in 1958 was 3,302.


The President of the Association is Mr. N. M. Khan, C.S.P., who is the Chief Commissioner, Karachi. The Chairman is Mr. Muzafar Husain, C.S.P., the Hon. Treasurer, Mr. M. A. Mirza, and the Hon. Secretary, Mr. Sarfaraz Khan. This is the first report, for the Pakistan Leprosy Relief Association, Karachi Branch, came into being in May 1957. Its first task was to take over the running of the Manghopir Leprosy Hospital. There was much to be done, and they started with a credit of Rs. 23/- (about £1 14s. Od.), but generous donations were given and much voluntary service, and it has been possible to improve the hospital greatly. There are 200 inpatients and more are asking for accommodation. It is proposed to build to receive a further 100 inpatients and to provide an outpatient clinic in the city. The latter is estimated to cost 100,000 rupees (£7,500). Mendicancy of leprosy patients is a problem in the city.


On pages 20 and 21 are statistics of leprosy inpatients and outpatients. There are 19 leprosaria, in which there were 4,700 patients resident at the end of November 1958, mostly on sulphone therapy. There were 1,500 patients admitted during 1958 and 778 discharged. Leprosy outpatient clinics are 344, with a total of 28,727 cases under treatment, including 7,071 new cases during 1958. The total under sulphone treatment is 25,902.

Annual Report of the Calcutta School of Tropical Medicine, 1957-58 (issued 1959).

On pages 122-126 Dr. N. Mukherjee reports on the work of the Leprosy Department.
There were autoradiographic studies on DDS tagged with S\(^{35}\), which showed a higher concentration around hair follicles, sweat glands, blood vessels, nerves, and cellular exudate.

*Electron and phase microscopy* of *M. leprae* revealed a glea-like substance around each bacillus and especially around a globus. Under sulphone treatment bacilli from patients showed no obvious changes in the first 6 months but later the cell membrane became rugged, cytoplasm disintegrated, mitochondria often broke up into smaller granules, the cell wall disintegrated and partially absorbed in some, and glea material disappeared.

In *immunology* studies continued on Dharmendra refined lepromin and Kedrowsky antigen on 1,015 subjects. The reactions were very similar, but the Kedrowsky antigen often produced a smaller zone of erythema and rather more induration at the site of injection. The lepromin reaction was studied histologically. In the lepromatous cases there was only slight oedema and tissue destruction. In the tuberculoid there was marked oedema and slight infiltration with polymorph neutrophils, lymphocytes, histiocytes, and eosinophils. Later after 48 hours the lymphocytes and histiocytes increased in number.

Studies in *experimental transmission* were on young Syrian hamsters and hybrid black mice, by intraperitoneal route of inoculation. There was some success.

*Histopathological studies* were carried out on leprosy lesions. In tuberculoid lesions some of the histiocytes and macrophage cells were found to contain ester phosphatides, especially in reacting tuberculoid lesions. In lepromatous lesions histamine content was found not higher than in healthy tissue. A study was also made of hypopigmented macular lesions in 9 cases. Bacteria were found in some, and a weak positive lepromin test in some.

In *therapeutic studies* Acidomycin was used by intradermal injection of the lesions, 0.25 ml. rising to 1 ml. on alternate days for 9 months, in 2 tuberculoid cases. The lesions subsided completely, but without recovery of sensory perception. For lepra reaction Sandosteen calcium and Irgapyrin were tried in 5 cases. The first drug gave moderate improvement. Irgapyrin also gave a moderate improvement. Chlorpromazine (Largactil) was tried unsuccessfully for relief of joint pains and disturbed sleep in one case.


This Centre has been in existence 5 years. The staff at present comprises the Director, Dr. John Garrod, a biochemist, Mr. G. E. Ellard, M.Sc., and Mr. R. Rhodes-Jones, laboratory technologist, and Mrs. Rhodes-Jones (photographer). The Centre carries out
medical supervision of 6 leprosy clinics in Uganda and 4 in Kenya, and on retirement of Dr. Harden-Smith as medical officer in charge of the Leprosarium to which the Research Centre is adjacent, Dr. Garrod has taken over this work. Dr. Garrod records appreciation of the generous financial support by the British Leprosy Relief Association to the Centre, by a contribution which amounts to nearly one half of the running expenses, and for a recent grant of £4,000 for mains electrical connection to the Centre. In the scientific work of the Centre, Mr. Ellard has used the ferric chloride method, previously developed in the Centre, for studies of the absorption and excretion of the drug SU 1906, (diphenylthiourea), and its metabolite. He has found that for maximum absorption and effect the dose need not exceed 1.5 g. at a time and preferably should be given daily at least. About one-tenth of the oral dose is absorbed and metabolized. Attempts to isolate the metabolite are making some degree of progress. Dr. Naylor of Makerere College has begun work on radio isotopes in their uptake by bacilli. Three years’ experience of the drug trials with Ciba 1906 confirms that it is a valuable alternative line of treatment, with absence of toxic effects, and less of unpleasant reactions and their sequelae. Etsul or diethylidithio-iso-phthalate by injection is also being tried. Progress is 3 to 4 times as fast as with standard treatment, and any drug resistance is avoided by its use in combination with standard drugs, and there are some hopes that a fully lepromatous case may reach bacterial negativity within a year of starting treatment. Clinical progress runs closely parallel to progress in bacterial counts and histology. There is an odour associated with the use of the drug. This does not upset the patient much but causes some ostracism from his associates.

Dr. Garrod records that as a result of the work in the 10 outpatient clinics, more lepromatous cases are found.

The German Leprosy Relief Association (Deutsches Aussätzigen Hilfswerk), 4 Dominikanerplatz, Würzburg.

Dr. I. Nowicki of the Medical Department of the German Leprosy Relief Association has kindly provided information about this new Association. It was founded in 1957 and began as a work of relief and aid to a leprosarium in Ethiopia, on finance provided by voluntary contributions from the public. It next gave support in medicaments and instruments to other leprosaria and constructed its own leprosarium in Bisidimo near Harar in Ethiopia. It now also aids 2 leprosaria in Korea, 1 in Indonesia, 1 in India, 3 in Tanganyika, and others in Paraguay, Chile, Brazil, Argentina, and Colombia, and has extended aid to 3 centres in Ethiopia besides Bisidimo, and others in Ghana and Angola. The Association also gives scholarships to 12 medical students from India and Indonesia, who might become medical officers of leprosaria in these countries, and proposes
to establish a research centre under the guidance of Dr. G. Klingmüller (who is Vice-Director of the Würzburg University Hospital for Skin Diseases).

Rajah Sir Charles Brooke Memorial Settlement, Chuking, Sarawak; Report for 1959.
Dr. J. D. Finlayson and Mr. Hamish MacGregor, O.B.E., report a good year. The number of patients on the roll was 384 at the beginning of the year and 388 at the end. New admissions were 82, and 69 were discharged symptom-free. Tuberculosis seems to be the most important intercurrent disease, for during the year 46 cases were treated. Of great interest are the remarks in the report on their experiences in the treatment of leprosy. Most patients are given bi-weekly oral DDS tablets, 1 to 3 tablets, and their efficacy has been shown by the number of discharged patients. Also for patients who do not make good progress or show themselves intolerant to the DDS, some 45 patients received weekly intramuscular injections of Sulfon U.C.B., which is a combination of sulphones and hydrocarpus oil. This treatment has proved very helpful. Ciba 1906 and Etisul have also been tried:
Ciba 1906 (DPT, or diphenylthiourea) was given in daily oral dosage to 10 patients for 21 months. With 2 exceptions the bacillary index improved greatly and 4 became negative and remained so. Eight of the 10 still have reactions and new nodules so the clinical state lags behind. Another 7 patients have the Ciba 1906 for periods of 3 to 9 months and are improving but still subject to reactions. Another 3 patients admitted in December were given Ciba 1906 and Etisul is to be given later. The usual dose of Ciba 1906 has been 3 tablets daily, as the patients do not seem to tolerate more. Reactions are milder on the whole.

Etisul (diethyl dithiolsophthale) has been given by injection in 3 groups of patients and a reduction in the bacillary index was obtained of 56% over a period of 11 to 15 weeks (this would take 6 to 12 months or more on standard treatment). Of the 13 cases on trial, 6 became negative and 2 relapsed. Combination with DDS and other drugs will now be tried.

Dr. N. D. Fraser, Medical Secretary of the Mission to Lepers, 7 Bloomsbury Square, London, has kindly provided the following information.
Rev. C. M. Lloyd and Mrs. Lloyd and Miss Grace Bennett, s.r.n., s.c.m., arrived in Korea in 1956. In 1959 they were joined by Dr. Gerald Wilson and Miss M. Butterworth, s.r.n., s.c.m. Rev. Lloyd reports that the first 10 months were spent in Pusan, from
whence they visited various concentrations of leprosy patients who were voluntarily segregated on the outskirts of towns and villages and in more remote places. These groups were independent and tried to administer themselves, and did not seem likely to respond to any new approach, so Pusan area did not give scope for the formation of a new modern centre. Mr. Lloyd therefore decided to move to Taegu, right in the centre of an area heavily affected by leprosy. Here he found Koreans had a much more alert interest and active concern, and in the Provincial Health Dept. Patients soon came forward and a small weekly clinic was formed, helped by Dr. S. R. Choi of the Government Mobile Clinic who at that time was conducting a leprosy survey. Soon the Presbyterian Mission Hospital provided more suitable premises for the clinic and the women of the Church in Korea raised funds. By 1960 the outpatient clinic work in Taegu moved to premises in the grounds of the Government Medical College Hospital, and 11 other clinics had been set up in rural areas within a radius of 50 miles of Taegu; the total registry of patients reached 1,000, with 20 to 30 new patients monthly. Regular attendance is 500 to 600 patients. These clinics may be in the open air and roadside, or in simple accommodation. It soon became evident that a centre of hospitalization was necessary, and has been begun by a four-bed unit in the Taegu Medical College Hospital opened in December 1959, and surgical and X-ray facilities have been given. It is hoped that a larger and more permanent leprosy hospital will develop from this. There is a Government leprosarium, Ae Sang Wan, some 10 miles from Taegu where the medical team visits and spends one day a week, and where their work is welcomed and appreciated. This leprosarium has a Korean full-time medical officer, a laboratory technician, and a trained nurse, and 800 patients, who are now being examined for the purpose of classification, with a view to bringing emphasis on the admission of infectious patients by preference. Also there have been great strides in the administration of Sorok Do, an island off the south coast of Korea where there are 5,000 to 6,000 patients. The Mission has given help to the Government Preventorium in Taegu, where Miss Bennett runs a clinic for health supervision of the 200 children. There is also good work which the Mission helps at Andong Colony, 80 miles north of Taegu, which is a refuge for mutilated and crippled patients founded by Mr. Kim Dae Bal, who is also in charge of Ae Sang Wan. The Korean Minister of Health has publicly expressed the sincere appreciation of the Ministry for all the help given by the Mission to Lepers and the hope for its continuance.