

LEPROSY REVIEW

The Quarterly Publication of
THE BRITISH EMPIRE LEPROSY RELIEF ASSOCIATION.

VOL. XII. No. 3.

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Principal Contents:

**The Problem of Children born
in Leprosy Colonies
and Villages**

**Report on Trial Treatment
of Leprosy with Diptheria
Anatoxine Ramon**

Reviews Reports

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Published by the Indian Council of the British Empire Leprosy Association. (see Review in Oct. 1938 issue of "Leprosy Review")

This book has been re-written and now contains 192 pages and 86 illustrations. The book is issued primarily for the use of doctors in India who wish to be put in touch with practical means of dealing with leprosy from both the therapeutic and public health points of view. It is hoped that it will also prove useful in the British Colonies and in other countries where leprosy is endemic. Much of the teaching found in standard text books has been omitted in order to make it possible to condense within a few pages knowledge that is absolutely essential for understanding the nature of the disease, and the lines along which it may be dealt with successfully.

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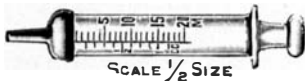
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THE PROBLEM OF CHILDREN BORN IN LEPROSY COLONIES AND VILLAGES

By SIR LEONARD ROGERS.

I am much indebted to Mr. William A. Lambert, of the Makete Leper Colony, an experienced Toc H worker for BELRA, for the following data of family and children infections in leprosy villages in Tanganika Territory. They relate to leprosy villages founded by the Germans before the last great war, and deal firstly with the cases that have occurred in three generations of eighteen families. An analysis of these shows cases in one generation in five instances, in two generations in six and in all three generations in seven instances. The number of cases in a single generation varied from one to four, and the total cases in the eighteen families appears to be 82, including both husband and wife in a number of instances. The disease was thus being maintained from one generation to another in many of these families. It should be mentioned that during the German occupation no treatment was supplied.

Of even greater interest are the data regarding the number and proportion of children who became infected from their parents. As there were some non-leper families with children in the same villages these serve as a control in the table below, which I have worked out from data supplied by Mr. Lambert.

TABLE OF NUMBER OF CHILD INFECTIONS IN NON-LEPER
AND LEPER FAMILIES IN THE MAKETE LEPER COLONY

	<i>Non-Lepers</i>	<i>Lepers</i>
Number of families	32	367
Number of widows with children	0	98
Total families including the widows	32	465
Number of non-leper children in total families	56	434
Number of leper children in ditto	0	151
Total children in ditto	56	585
Percentage of infected children	0	25.8%

It appears from these data that one-fourth of the children in the leper families with one or both parents infected had contracted the disease. As there must be some too young to have yet done so, and others in the incubation period, or who may become infected by longer residence with their leprous parents, the total proportion of the children of leper parents who will contract the disease through prolonged residence is certain to be much more than one-fourth of the total thus exposed to infection.

The above data once more illustrate the grave danger to children living with leper parents, now so generally recognized. They also appear to show that the children living in the same area with healthy parents escaped infection, but in view of their small numbers, and because it is not quite clear from the data supplied to me whether a few families with only child infections may be included among the infected class, it would not be safe to stress that point. Ample evidence, however, exists to prove that the earliest possible separation of the infants born to leper parents is absolutely necessary if a decrease in the incidence of leprosy is to be brought about. This indeed constitutes one of the gravest and most difficult problems in the control of leprosy by the voluntary isolation of the more infective cases in leper colonies and villages among backward races, so often living in one-roomed houses or huts in warm areas of Asia and Africa, and is worthy of further consideration.

OTHER DATA BEARING ON THE SUBJECT

The great danger to children brought up by their leper parents was convincingly demonstrated during the earlier years of the great Culion Island leper settlement of the American sanitarians in the Philippines founded in 1906. Some five thousand infected people lived under family conditions in their own houses and, as Lampe showed in Surinam, the fertility of leper women is not reduced, and that of males is only materially affected in advanced cases, several hundred children were born in the settlement. Later Denny recorded data to show that no less than 44 per cent of the children who had lived with their leper parents for from 7 to 10 years had contracted the disease. Further figures up to 1922 showed that among 308 children born in the colony, and not separated from their parents, 14.2 showed clear infection and 18.8 showed suspicious symptoms, a total of 33 per cent. Others were doubtless infected and are still in the incubation stage. Again, in Manila Velesco reported on the examination of 80 out of 125 children born to 27 leper parents, an average of $4\frac{1}{2}$ per family; he found 61, or 76.3 per cent to be suffering from leprosy, mostly in an early stage.

It is clear from such data that, in view of the large families of backward races mostly living in one roomed houses, and after allowing for the high infant mortality among them, such rates of child infection would not only suffice to maintain the incidence of leprosy indefinitely, but may well result in a steady increase in its prevalence.

PREVENTIVE MEASURES. (1) SEPARATION OF INFANTS FROM
BIRTH FROM LEPER PARENTS

It is generally admitted that leprosy is exceedingly rarely, if ever, hereditary, and even hereditary predisposition could not be proved by careful study of Philippine data. The effectiveness of removal of infants from their leper parents, and bringing them up in a separate part of the same institution, was demonstrated at Tarn Taran and other missionary controlled leper asylums in the latter part of the last century. Not only nearly all the children so removed, but their children also remained healthy. This plan has been adopted in recent years at Culion, and the results when available should prove of great interest. In the old prison-like compulsory isolation leper asylums the enforced separation of the sexes afforded another solution of the problem, which is also practicable in colonies in the more advanced countries such as South Africa.

In tropical countries the isolation of infants is greatly limited by the difficulties and cost of hand feeding of infants apart from their mothers, and in supplying the highly trained nurses essential for its success. In Madagascar the difficulty was met by placing the infants out with healthy wet nurses. In other places the infants are accommodated in a separate house from their parents, but taken to their mothers regularly to be suckled with every precaution against infection. In Nigeria in some instances it has been found possible to send infants born in leper villages to be brought up by healthy relatives elsewhere; all admirable plans where practicable.

(2) PREVENTION WHERE THE ABOVE MEASURES ARE IMPRACTICABLE

Among vast populations of Tropical Africa, China, Korea and parts of India any form of compulsory prophylaxis is impracticable; not only for the obvious lack of financial means, but even more by the wholesale hiding of the patients that would result, with the loss of opportunities for treatment in the more amenable early stages. Many thousands of infective cases are now flocking to the modern agricultural colonies and model leper villages in Africa and elsewhere, but the heads of families will as a rule refuse admission without their wives and also to part with their children from birth. Some other solution is therefore urgently required to prevent leprosy being maintained indefinitely through their progeny.

(3) VOLUNTARY STERILISATION OF THE LEPER MALE HEADS OF
HOUSEHOLDS

An effective solution of the dilemma has already been provided

by Dr. R. M. Wilson, who built a model leper colony in Korea by leper labour. He has recorded that he found that the separation of the sexes and the prohibition of marriages in leper institutions resulted in many illegitimate children being born who are very liable to infection. Many suitable patients left, lived a married life in camps and had many children, half of whom contracted leprosy from their parents, thus perpetuating the disease. He therefore started a self-supporting colony by allowing couples to marry after the male partner had been sterilised by the simple operation of vasectomy under a local anaesthetic. This in no way interferes with normal married life, but suffices to prevent the procreation of children by the husband. The married couples built their own houses with a little help and so largely became self-supporting that their maintenance cost only one-fourth of the average. In 1936 Dr. Wilson was able to report the success of his bold experiment, which included permission for each couple to adopt one leper child from the colony; this helped towards solving another problem. At the end of three years the eleven families were well and happy. On the contrary, within a year to seventeen other couples, who had married without permission or sterilisation, nine children had been born and four of the mothers had relapsed under the strain of pregnancy and lactation. The husbands of this group now submitted to be sterilised and no more children have been born to them. The terrible, and expensive, tragedy reported in 1933 by Dr. Lampe from Dutch Guiana, of children born and infected in the leper asylum, who lived there for eighty years, can thus be averted.

Now that the practicability and success of Dr. Wilson's method have been demonstrated, there must surely be medical men in charge of leper colonies, who have gained the confidence of their patients to the degree necessary to enable them to follow his example; to the immense benefit of the present, and still more of future generations of leprosy-infected backward communities. From the time twenty years ago that I commenced a close study of half a century's medical literature bearing on the epidemiology of leprosy, I have urged the protection of children from infection as the most essential of prophylactic measures. The principles that BELRA has been working on for nearly that period of time have been proved to be sound by the results obtained on a limited scale in Africa and elsewhere, but the problem of the leper child remains the crux of the whole question. This note will not have been written in vain if it leads to the much wider adoption of Dr. Wilson's solution of this remaining dilemma being dealt with.

REPORT ON TRIAL TREATMENT OF LEPROSY WITH DIPHTHERIA ANATOXINE RAMON

A

B. MOISER

The trial was begun on 13.6.1940, and continued till 7th March, 1941. Fourteen men and 5 women were chosen for the trial, all natives.

Dosage began with 1 c.c. weekly, and increased by 1 c.c. to a maximum of 4 c.c. weekly. Each increase of 1 c.c. was made, on the average, at the end of 6 weeks. All patients complained of "pains all over the body," and particularly in the joints, especially in the knees and ankles. The experiment was finally stopped at the request of the whole body of the patients, and because the majority did not show any improvement.

Case 1. Male, aged about 35. LI NI.

Positive ear, nose, and back. Remained so.

Several fresh lepromata appeared.

Some ulcerated. Worse.

Case 2. Male, aged about 17. LI N2.

Positive ear, nose and face. Remained so.

Enlarged ulnar nerve. No improvement.

Case 3. Male, aged about 14. L3 NI.

Face, ears, back and limbs very nodular and infiltrated. Several nodules broke down and ulcerated, and a few of these became +1 from +3, but the great majority remained strongly positive (from +3 to +5). No improvement, though he appeared to be deriving benefit in the early stages of treatment. He complained much of pain, and nasal ulceration.

Case 4. Male, aged about 9 years. LI NI.

Nodules on nose and cheeks. +2.

No change at all.

Case 5. Male, aged about 28. LI NI. +2.

Lepromata of back, face grew steadily worse.

Case 6. Male, aged about 25. LI NI. +1.

Ears nodular. No change.

Case 7. Male, aged about 30. LI NI. +1.

Nodules increased in extent and size. Worse.

Complained much of joint pains.

- Case 8.* Male, aged about 25. LI NI. +I.
Several nodules ulcerated. Vesicles appeared on both flanks.
Conjunctivitis B.E.
Treatment was not continuous. Worse.
- Case 9.* Male, aged about 20. Nodules ear, palate scrotum +I.
No change. Complained much of pain in knee joints.
- Case 10.* Male, aged about 50. LI NI. +I.
No change.
- Case 11.* Male, aged about 20. Tuberculoid N2. +I.
Several fresh maculae appeared on the back. Worse.
- Case 12.* Male, aged about 25. L3 N2. +5.
A very advanced case with enormous lepromata on face, body and limbs. At first several of these ulcerated, and disappeared, and became negative, and the patient appeared to be improving very much, but the general mass of lesions remained unaffected. No improvement in neural symptoms and signs.
- Case 13.* Male, aged about 28. L2 NI. +2.
This case was at first tuberculoid, but later in 1939, became lepromatous. Complained much of joint pains. No change at all.
- Case 14.* Female, aged about 25. L2 NI. +I.
This woman appeared to improve for a time, but many lepromatous infiltrations and nodules remain on the back and upper limbs. Did not complain of any pain. No change.
- Case 15.* Female, aged about 10. LI +I.
Only a few nodules on the ears. No change.
- Case 16.* Female, aged about 20 LI. +I.
A few small lepromata only. All of these disappeared.
Became negative.
This case definitely improved, but she is the type of case that improves here rapidly under moogrol.
- Case 17.* Female, aged about 30. L2 NI. +3.
Massive lepromata on face and ears. Complained much of pain and had a reaction after a dose of 2 c.c. at 8th week.
Cough, swelling of abdomen.
Treatment interrupted and finally abandoned after 20 weeks.
No improvement.
- Case 18.* Male, aged about 7 years. LI NI. +I.
A few nodules on alae nasi only. Several new ones appeared.
Worse.

Case 19. Male, aged about 25. N2. Tuberculoid.

Under treatment for month only. Still continues. No change so far.

Treatment has now been discontinued in 18 cases, and I conclude that mixed cases show no improvement. The trial will possibly be continued with a few cases of neural type, but at this hospital the treatment is very unpopular.

REVIEWS

Leprosy in India. Vol. XIII, No. 1, Jan. 1941.

A Study of the Lepromin Reaction in Children with Special Reference to Contact, by R. G. Cochrane, G. Rajagopalan, I. Santra and M. Paul Raj.

These workers have carried out lepromin tests in 276 children from the Silver Jubilee Children's Clinic, Saidapet, Madras. In addition 471 inmates of the Lady Willingdon Leprosy Sanatorium were tested for purposes of comparison. The results are given in a series of tables, from which the following conclusions are drawn. Reactions of less than 5 mm. in diameter are considered to be of little significance, and the appearances were noted once a week for six or more weeks. The results are in agreement with previous workers in showing negative results in 100 per cent of lepromatous cases in both groups. In the healthy children 14 per cent were negative against 20.5 per cent in the other group. Simple neural cases gave 40 per cent negative among the children against 56 per cent in the others. Children tuberculoids were all negative. Further analyses of the data indicated that, if lepromatous cases are excluded, lepromin reactions tend to be negative more frequently in children where the history of contact with other cases in houses or among families is maximal. On the other hand, hereditary predisposition does not influence the reaction significantly. It is therefore suggested that the most important factor in breaking down cellular resistance in leprosy is continuous contact with an open case. The necessity for repeated lepromin tests is stressed.

The Onset of Leprosy in the Lepromatous Type, by John Lowe and S. N. Chatterji. The authors have closely examined the histories and clinical findings in 249 lepromatous cases to ascertain what proportion commence in the more usual manner with neural symptoms, as opposed to being lepromatous in nature from the onset. They found that 65 to 68 per cent begin with some form of neural symptom. In over half of these nerve trunk involvement was the first noted symptom, nearly one-third commenced with anaesthetic patches with little or no erythema and thickening associated with marked tuberculoid lesions. As tuberculoid cases are very common in Calcutta these findings support the view that major tuberculoid lesions, and long standing neural cases, but rarely become lepromatous. The average duration of the nerve phase was 3.4 years.

Leprosy in the Fyzabad District, by P. J. Chandy. This paper is mainly of local interest, and is based on over 1,000 cases seen in 2½ years. On the assumption that there must be ten cases in the district for every one coming to the hospital, he guesses that there must be at least 7,000 cases in the Fyzabad District. An analysis of the caste incidence brings out a larger proportion of cases among the high caste Brahmins than among the lowest castes, and it is suggested that this may be due to the former travelling more. In 80 per cent of the patients hookworms were present but, as the Editor points out, infections in this region are very light.

The International Journal of Leprosy, Vol. I, No. 1, Jan-March, 1941.

The Use of Diphtheria Toxoid in the Treatment of Leprosy, by D. R. Collier. The following are the claims made in this paper.

“Treatment of over 600 leprosy patients with diphtheria toxoid or antitoxin, over periods varying from a few weeks to 10 months, have given results which far exceed any obtained by me with any other method or combination of methods. Fifty per cent of all early cases treated for six months or more have become symptom-free as judged from the bacteriological examination, the condition of the skin lesions and the areas of anaesthesia, and a general appraisal of the patient's physical condition. The more advanced cases show definite improvement in a high percentage of cases according to the same standards.”

(Unfortunately the reports so far reaching us regarding the tests of this treatment, arranged by Dr. E. Muir last year, have afforded no confirmation of the claims made by the workers in Siam. The unfavourable report by Dr. Moiser published in this issue is confirmed by Dr. Muir's early trials, as well as by letters from several other observers. Full reports of any received will be

recorded in due course. In the meantime judgment should be suspended. Editor.)

Removal of Solitary Lesions in Tuberculoid Leprosy, by Pedro Balina and Guillermo Basombrio: This is an interesting report on the removal by surgery of the primary lesions in fourteen cases of tuberculoid leprosy, including one in which only a nerve was involved. Twelve of them have been followed up for from one year and seven months up to eight years and eight months after the operation, and only one relapsed. In seven further cases the lesions were destroyed by the galvao-battery in three, by electrocoagulation in two and in a third combined with removal of a thickened nerve, and in the remaining case by carbonic-acid snow. None of these had relapsed after $2\frac{1}{2}$ to 9 months. Both groups were also treated regularly with chaulmoogra preparations parenterally and orally, for curative purposes and to help to keep in touch with the patients. The one relapse was in a patient who neglected to continue the chaulmoogra treatment. The authors have been favourably impressed with the results, but recognize that longer observation is necessary in coming to a final judgment in the matter. Illustrations before and after treatment of a few of the cases are included.

The Use of Urea in the Treatment of Perforating Ulcers, by Norman R. Sloan. After a brief discussion of other methods of treatment the writer states that he was led by the advocacy of urea in the treatment of purulent wounds by Robinson in the form of a 2 per cent solution or a 15 per cent ointment or jelly, to try urea in perforating ulcers in leprosy. He found the results most encouraging, with loosening and extrusion of necrotic bone when present. Crystals of urea are packed into the ulcers daily and covered with waxed paper, and a saturated solution instilled into deep sinuses. In 50 Negro cases 80 per cent healed, against 60 per cent by other methods.

Experience with the Naphthalan Oil Bath Treatment of Leprosy, by V. D. Kufnezov. This oil, which only occurs in Russia, has for long been used medicinally at Aznept in the Trans-Caucasian railroad. It adheres firmly to the skin and cannot be washed off with water. Fourteen leprosy patients have been treated by immersion up to the breast in the oil in the sun at a temperature of 40° (presumably centegrade) for 10 to 15 minutes, after which the oil was scrubbed off with a small wooden stick. Usually 10 to 15 baths are given and the patient is not washed during the course. Profuse sweating results, and the first few local and general baths "cause rise of temperature, the general

baths 1 to 20 degrees and the local baths 0.5 to 10 degrees, but it returns to normal after three hours. It is claimed that the writers had not seen such rapid improvement with any other method used in their southern leprosaria.

The Mitsuda Reaction by Vaccines Treated with the Ultra-Supersonic Wave, by Hiroichi Kitano and Takeo Inoué. These workers have found that the "ultra-supersonic wave" apparatus is ideal for dissolving bacilli, so they used it to obtain the complete dissolution of lepra bacilli in an emulsion of a nodule to make perfect emulsions of the tissue particles and bacilli. The Mitsuda reaction was then carried out with this emulsion, with controls by the ordinary bacillary and tissue emulsions. The new vaccines retained their antigenic capacity, but in a much weakened form, and gave very similar results in the different types of leprosy. Filtrates gave no positive reactions, which are therefore not due to soluble substances. The fine bacillary particles in the emulsion are not acid-fast. Rat leprosy bacilli are influenced in the same way by the waves.

The Lepromin Reaction in Normal Dogs; Preliminary Report, by H. W. Wade. In view of the finding of Rodriguez that dogs react positively to intracutaneous injections of lepromin the author has studied these with a view to throwing theoretical light on the nature of the reaction. He concludes that it is allergic in nature, but is not a test of allergic hypersensitiveness. The specific feature in leprosy is the loss of that capability in lepromatous cases.

Serum Phosphates in Leprosy, by Sister Hilary Ross. The serum from 102 leprosy cases of varying types has been examined for inorganic phosphorus and phosphatase activity with a view to throwing light on the bone atrophy of the disease. The serum phosphatase was found to be within the normal limits in 89 of the 102 cases, 3 were slightly above and 10 below the normal.

Infection of the Hamster (Cricetus Cricetus) with Human Leprosy, with Bacillemia, by H. C. de Souza-Araujo. Ten of these animals were inoculated with a fresh emulsion of lepromata subcutaneously in the axilla. Bleedings enabled bacillemia to be demonstrated in three of the animals. Two of the animals examined later after death showed a few acid-fast bacilli in the internal organs, but no lepromatous nodules.

Contribution a l'Etude de la Lèpre. I. Essais de Culture du Bacille de Hansen, by R. Chaussinand. This laborious investigation occupied seven years and included the use of very numerous culture media inoculated with lepromata from 87 cases of leprosy.

Three cultures of acid-fast bacilli were obtained, one was identified as a human tubercle bacillus of feeble virulence, and the other two as chromogenic paratuberculous bacilli avirulent to guinea-pigs, rabbits and monkeys. They gave negative Mitsuda reactions in nerve leprosy. Further a bacillus was obtained on a special medium after eleven months which is believed to be that of Hansen, but sub-cultures did not yield visible colonies, although slides showed bacilli. Further work is in hand.

A Repeated Leprosy Survey in Southeastern Nigeria. The Progress of Untreated Cases of Leprosy, by T. F. Davey. This is an instructive account of the progress of a number of cases of leprosy during an interval of two years between house to house surveys of a large and very insanitary leper village in Nigeria, during which no treatment had been carried out. Attached to the village was a leper one, built ten years before by the people themselves for the isolation of the more advanced cases of the disease. At the first survey in 1937 6 per cent of the population were found to be affected, a figure that was raised to 6.7 per cent by the addition of some patients absent at the first survey. In 1939 the percentage of cases was only 5.7 apparently as the result of the partial village segregation mentioned, as no treatment had been possible. The records of careful clinical notes and bacteriological examinations made in 1937 were compared with those of 1939 to ascertain the progress of the disease during two years without treatment, classified according to the Cairo nomenclature. A table shows the results in 118 cases, 18 of which had died, 6 from smallpox. Of the remainder 33 were worse, 39 stationary and 28 had improved, or 67 per cent stationary or improved. All but three of the improved cases were tuberculoid or simple macular neural ones, and the three improved lepromatous were in the early macular stage.

All the infectious cases have now been placed in a model leper village, built by the inmates under supervision, where they live quite happily. Regular treatment is being supplied at a newly established clinic, and it is intended to make a further survey in two years time to ascertain the progress. It is on such lines as this that the difficult problem of gradually extending prophylactic measures throughout the provinces around the main settlements is likely in time to be solved.

REPORTS

Annual Report of the C.M.S. Bunyoni Leper Colony for 1940.

In this, the tenth, annual report good progress on the lines advised by Dr. Muir during a visit to Uganda is recorded. The segregation scheme of separating the infectious and non-infectious parts of the island by a fence across it from the hospital to the shores on either side has been carried out. Only temporary improvement and rearranging of the hospital could be done in war time, but it has proved very satisfactory. The supply of sun dried or burned brick houses with the assistance of the Uganda Government has improved the health of the non-infectious cases. Chaulmoogra treatment has been continued. A new carpenters shop allows boys to be taught that useful occupation as a step in introducing occupational therapy. Active steps have been taken to reduce soil erosion and much more work generally is being performed by the inmates. Cultivation is being extended and the wild pig nuisance dealt with. All babies born are being taken to the creche, but it has been found necessary here, as elsewhere, to allow the mothers to come to suckle their infants during the first three months of their life. Separate schools are maintained for the non-infectious and the infectious children respectively, and eight children have been able to leave as symptom free, but five others have developed infection.

Central Leper Hospital, Makogai, Fiji. Report by Dr. C. J. Austin, Medical Superintendent, for 1939.

The Lepers Ordinance of 1939 was soon followed by the establishment of a leper asylum on the island of Beqa for a few cases. In 1909 the Makogai island was purchased by the Government for the purpose, and two years later 40 patients were transferred there from Beqa and the number has steadily increased to reach 632 in 1939. Since 1925 patients have been admitted from New Zealand and its dependencies and from Tonga, and in 1935 Gilbert Islanders were also admitted. Since 1911 2,269 cases (or suspected cases) have been admitted, and a table is given of the results in 1,777 cases available for study. Of these 729, 41.6 per cent, have died, and 25.9 per cent have been discharged. Inactive and improved cases amount to 49.3 per cent of the whole number. The 394 patients discharged in Fiji have been followed up, and 60, 13 per cent, relapsed and were readmitted, but 13 were later discharged again. The admissions show little signs of diminution, but cases are now coming in earlier stages, and this

holds out hopes of increasing discharges in the future. The most frequent causes of death have been in this order: debility, nephritis, gangrene of septicaemia, tuberculosis and cardio-vascular disease. Intradermal injections of chaulmoogra preparations remain the nearest approach to a specific treatment yet discovered. Burns and lepromatous ulcers are now treated by the application of a mixture of gentian violet, brilliant green and acriflavine, without any bandage, with very good and economical results. Full tables are given regarding treatment of different races and types of the disease. The totals give 65.6 per cent improved and 39.5 per cent inactive, with variations from 80.8 and 90.4 per cent respectively in Neural 1 cases to 0 and 42.8 per cent in Lepromatous 3 cases. The Chaulmoogra plantations continue to do well and yielded a little more than 5 gallons of the hydnocarpus oil. Attention continues to be paid to improving the social amenities, and the whole report bears witness to satisfactory progress.

Public Health Report of the Union of South Africa for the Year Ending 30th June, 1940.

This short report gives the usual tables of statistics, after first acknowledging the value of Dr. Muir's visit to South Africa in 1939. The cases in the five leprosy institutions numbered 2,347, only 89 of whom were Europeans. The first admissions numbered 778, recrudesced cases 83, the discharges 600 and 203 died. The routine treatment continues to be by chaulmoogra oil and its esters, but the use of heavy metals is being investigated. For reactions foudin and mercurochrome are used, and prontosil and M & B 693 proved of value in "dikhop" or "pseudoerysipilas." Attempts at cultures are said to give some promise at certain stages of the nodular stage.

Ngomahuru Leprosy Hospital. Annual Report for Year 1940, by Dr. B. MOISER.

Mount Selinda has discontinued to treat lepers. One European patient, from England, accompanied by his wife, has been admitted to Ngomahuru. He contracted the disease in Burma, was invalided to England, and became rapidly much worse.

Treatment. "Moogrol" has continued to be the main form of treatment. Eighteen native patients are being given Diphtheria Anatoxine as the sole treatment, and it is observed that the most advanced lepromatous cases are benefiting particularly. Others, the majority, have so far shown little signs of improvement. The experiment is being continued.*

* For further results see Report on page 54.

One European, (mentioned above, from Burma, an advanced mixed neural and lepromatous case), is receiving Moogrol and Anatoxine combined, and is making remarkable progress.

Results of Treatment. When Moogrol is given in sufficiently large doses, i.e., up to 10 c.c. twice, or even three times a week, results are very satisfactory, but, when only small doses are employed, the preparation seems to have little or no effect.

Large doses are essential, and do not cause "reactions," at any rate at Ngomahuru. "Reactions," either general or local, are conspicuous by their absence.

At Mtemwa and Mnene, although Moogrol is given there too, results are not as good as at Ngomahuru, and I feel sure that increased doses will effect improvement.

Healthy Children Born in Leprosaria. The practice in this country is to keep infants in the Leprosaria for one year, during which they are weaned from breast-feeding by their mothers. On the face of it, this would appear to run a grave risk of infection, but, in eleven years, not one child sent out from Ngomahuru has been admitted with the disease. This practice can therefore be considered to be fairly safe.

Re-admissions for Further Treatment. It has been found that discharged patients return for further treatment at once, and of their own accord, as soon as they discover signs of active disease. There is no need to seek them. This is one excellent result of the "voluntary" system of segregation followed in S. Rhodesia.

TABLE I.

	Number on Register Jan. 1, 40.	Admitted	Readmitted for further treatment	Readmitted for Economic reasons	Discharged with Disease arrested	Died	Deserted	Deserted and Returned	On Register Dec. 31, 40	Total Treated
1939 ...	882	193	78	—	202	44	40	—	867	1151
1940 ...	869	204	42	4	200	34	81	22	827	1107

TABLE II.

HEALTHY CHILDREN.

	On Register	Brought in by Mothers	Born in Hospital	Sent away to relatives within one year of birth	Died	On Register Dec. 31, 40
1939 ...	27	9	10	29	1	16
1940 ...	16	8	15	16	3	20

Report on the Oji River Leprosy Settlement and Clinics for 1940.

Dr. Money is able to report important progress of this large Nigerian Settlement. In order to extend its influence as widely as possible over the Omitsha Province two new clinics have been added to the four earlier ones with the cordial cooperation of local councils. The records of cases in these now approach 10,000 in number, in which an average of about forty pints of the sterilised hydnocarpus oil are required for injection every week, and approximately 8,500 bacteriological examinations were made in the one year. Suitable patients in the central settlement are trained as clinical assistants to help at the clinics, which were each visited by the medical staff every week.

The Settlement itself is a small town made up of several villages, including those for men, women and married couples respectively, in which sanitation is enforced. Further land has been acquired for farming, and an industrial school gives training in a variety of occupations. Good results in physiotherapeutic training of disabled patients have been obtained at the hospital. An improved system of agricultural employment has been introduced. The number of patients on the registers has increased by 78 per cent. By means of the clinics approximately two-fifths of the province, including the most densely inhabited portions, are now served. A Research Unit is required to allow of further surveys and extension of the work. The patients in the Settlement, where the more highly infectious ones are cared for, at the end of the year numbered 491 and the registered patients at the clinics 9,506.

The Sixty-sixth Annual Report of the Mission to Lepers for 1940.

The valuable work of this long established mission has been continued unabated by the war conditions. The 45 homes accommodate 9,971 inmates, and 47 aided homes a further 6,916, mostly in India, China and Africa. No less than 1,392 healthy children of leper parents have been rescued from imminent danger of infection from their parents. The expenditure during 1940 amounted to £72,046 and the income to £74,814.

Report of the Sudan Medical Service for the Year 1939.

A table shows a total of 6,720 known cases of leprosy, of which 8,009 are in the Central Kordofan Province and 4,371 in the Southern Equatorial area, leaving very small numbers in the remaining northern dry areas. The large settlements in the

Southern Province continue to do good work, but have decreased considerably in size with the discharge of many recovered cases who are kept under close watch. In the less affected areas small leper settlements have been provided. There is no evidence of any increase of the disease over a series of years and the disease is a less serious public health problem than in most tropical African territories.

CORRESPONDENCE

To the Editor, *Leprosy Review*,

In the July, 1940, issue of *Leprosy Review* there appeared (p. 152) an abstract of an article published by me with Doctors J. N. Rodriguez and J. G. Tolentino in the *International Journal of Leprosy* [7 (1939) 473-494], regarding the course of open cases of tuberculoid leprosy at the Cebu leprosarium. One of the conspicuous features of the cases involved was the frequency with which secondary lesions, beginning as nodules, had appeared as a reaction phenomena. In the abstract referred to this feature was spoken of as a "well-known" fact. May I submit that if it is well known, it is not well appreciated? There is ample evidence that, even today, such cases are not infrequently taken to be of "nodular" nature—of the lepromatous type of the current international classification.

More important is a statement—this one put into brackets, so that it is clearly of editorial nature—in connection with our observation that in some cases the lesions underwent change in the course of time from major to minor tuberculoid. The editorial insertion purports to explain this change, as follows: "[or, in other words, a temporary phase of reaction appeared and passed off]." It is feared that this statement may cause some misunderstanding, if not of the difference between the major and minor tuberculoid varieties of the disease, at least of our understanding of them.

Inasmuch as the writer was the first to publish specifically on reaction in tuberculoid leprosy [*International Journal of Leprosy* 2 (1934) 279-292], and has dealt with the matter repeatedly in later publications, it may perhaps be granted that we should be capable of distinguishing between the acute, reactional conditions

in that form of leprosy, whether major or minor, and the more ordinary, nonreactional clinical phases. The change which we described was not a mere recession of a temporary reaction phase, but a late change from the more exuberant major grade to the lesser, minor one and progression of lesions as of that form. Publication of this statement will be appreciated.

H. W. WADE, M.D.

Leonard Wood Memorial Laboratory,
Culion, Philippines.

* * * * *

Dr. Muir's reply to Dr. Wade's remarks is as follows:—

“ The major tuberculoid, in my opinion, frequently denotes a reactionary phase in the course of leprosy in a resistant patient. Most commonly, in my experience, the lesions are already large in size when they more or less suddenly appear as major tuberculoids. This shows that previous to this sudden appearance they have been spreading in a much less observable form. Major tuberculoids, once they have appeared as such, may continue to extend their margin, but, especially in the most conspicuous and typical one, it is commoner for them to cease to spread, and, after a longer or shorter period, to resolve. Thus in quite a large proportion of cases it may be said that the major tuberculoid lesion denotes a temporary phase between two other phases: (a) the inconspicuous one in which it increases in size, and (b) that of resolution in which it is either reduced to an inactive scar or at least to a much less conspicuous lesion.”

Chacachacare,
Trinidad, British West Indies.
9th June, 1941.

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