

CASES OF LEPROSY IN THE BANGKOK MAIN PRISON  
TREATED WITH SODIUM GYNOCARDATE  
AND SODIUM GYNOCARDATE "A."

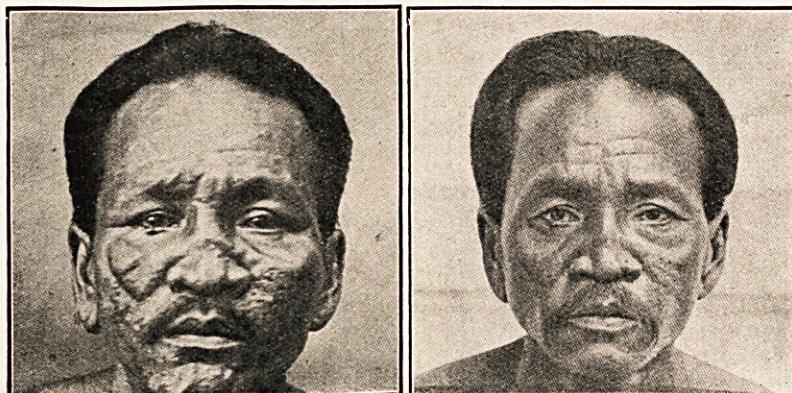
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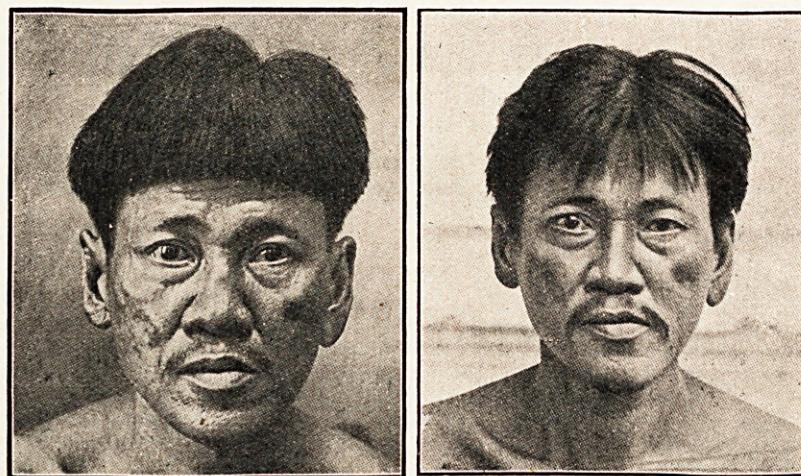
CASE I.



CASE IV.



CASE VII.



recommended by some that the wound should be thoroughly cleaned on each occasion. When a raw surface has been produced, treatment is carried on by means of fomentations or eusol dressings. It has not been the experience of this hospital that potassium permanganate causes great pain.

Scraping is recommended in those cases in which the scab is more or less detachable and in which there are no outlying papules round the main sore.

In sloughy conditions, fomentations are applied until the wound is clean, a bland ointment being then substituted. In a number of cases which have resisted treatment by other methods a 1 per cent. tartar emetic ointment has proved of value, but all cases do not do well under this menage. The same equally applies to sulphur ointment. Some cases have proved intractable to all the above forms of treatment, but have responded quickly to intravenous injections of Tartar Emetic, 10 c.c. of a 1 per cent. solution being introduced into a vein of the arm. Intravenous injections of tartar emetic are by no means a certain cure. Some types of sores do not respond in the least. When other methods fail, ionisation with zinc sulphate may be tried. Sores healed by ionisation seem to break out again very readily. Possibly the treatment causes only a temporary quiescence of the Leishman-Donovan body. The application of sheet-lead has not been tried in this hospital, but good reports were received of it from Waziristan. Whether these were true oriental sores or not, has not been determined.

*Hæmorrhoids.*—I take this opportunity of publishing, for the first time, an operation for hæmorrhoids I have been in the habit of performing for several years. I refer to it as the "Three-needle" method.

The pile is grasped in the long axis of the bowel by a long narrow clamp, preferably of the Robert Jones' pattern, which does not slip. A piece of silk, about 3 foot long, is taken and on this three needles are threaded and arranged at equal distances. The middle needle is inserted through the centre of the pile behind the clamp; the lateral needles divide the remaining distance (see Fig. 1). When the needles are pulled through, four loops are formed and tied off as four mattress sutures (see Figs. 2 & 3).

The pile, external to the clamp, is cut away with scissors and the clamp removed. The advantages claimed for this method are:—

- (1) It is very rapid.
- (2) It is a bloodless operation. No time is wasted catching bleeding vessels.
- (3) The scar produced is linear in the long axis of the bowel, thereby reducing constriction to a minimum.
- (4) The patients are comfortable after operation.
- (5) The late after-results are uniformly satisfactory.

In concluding these somewhat random notes, I must express my thanks to Mr. Gernon, Assistant Surgeon, for help in obtaining records, etc., and my great indebtedness to Lieut.-Col. Bowle Evans, C.M.G., I.M.S., late S.M.O., Dehra Dun, not only for permission to publish these notes, but for his never-failing courtesy and help throughout the period of his able administration.

### CASES OF LEPROSY IN THE BANGKOK MAIN PRISON TREATED WITH SODIUM GYNOCARDATE AND SODIUM GYNOCARDATE "A."

BY DR. M. CARTHEW, M.D.,

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THESE cases were treated from April, 1917, till November, 1917, with sodium gynocardate intravenously and by the mouth in the manner

before described\*. After that date till the present time they have been treated with sodium gynocardate "A" intravenously and by the mouth, as the manufacture of sodium gynocardate had ceased.

On a few occasions, and for short periods while the veins were blocked, the drug was injected subcutaneously.

Either one drug or the other has been administered practically continually, but on a few occasions the drug had to be stopped for a few days owing to reactions or some ordinary illness on the part of the patient, and also difficulty in obtaining the drug from India.

In only one single case has there been a severe reaction.

#### Case 1:—

*Condition, April, 1917.*—Duration of leprosy, 6 years; time in prison, 2 years. A raised, red macular thickening of the skin over the whole body, there being but few places not affected. These maculæ are dark-red in colour with raised thickened margins.

On back and front of both thighs are large maculæ, pale in the centre. These are markedly anæsthetic. There is complete anæsthesia of both legs and feet from 6" above the ankles downwards. Complete anæsthesia of the right hand, of left shoulder, arm and left hand.

Partial anæsthesia over the facial maculæ and over some of those on the body.

The ulnar nerve on both sides is markedly indurated.

*Bacteriological examination of the nose.*—Negative.

*Diagnosis.*—Maculo-anæsthetic leprosy.

*Condition, April, 1918.*—The macular thickening over the body has largely disappeared, only faint traces remaining on the abdomen. The large maculæ, with pale centres, on the back of the thighs have entirely disappeared, those on the face have entirely disappeared.

Anæsthesia has almost entirely disappeared from all situations affected. The patient is now sensible to scratching, pinching and stroking, whilst a year ago he was insensible to the prick of a pin.

No reactions have occurred in this patient.

*Result.*—Lesions very much improved.

*Case 2.*—See No. 23264: Chinese.

*Condition, April, 1917.*—The patient is suffering from syphilis, tuberculosis and leprosy.

The patient has had leprosy 2 years, has been in prison 3 years, therefore it looks as if he were infected in the prison.

The patient has a tubercular thickening of the lobes of both ears.

His whole body and face is covered with small, dark-red maculæ. There is a scaly dermatitis on knees, shins, feet, and elbows. Trophic ulceration of the sole of the right foot.

Complete anæsthesia of right leg from knee to toes. Anæsthesia of outside of left foot. All the anæsthetic areas being insensible to prick of pin.

*Bacteriological examination of nose.*—Positive.

*Diagnosis.*—Maculo-anæsthetic leprosy.

*Condition, April, 1918.*—All maculæ have disappeared, only a faint trace of the dermatitis on the shin bones.

The trophic ulcer of the foot has healed, the thickening of the ears has disappeared.

Anæsthesia has much improved, his skin is now sensible to the prick of a pin, but in a few places is still insensible to stroking.

*Reactions.*—He had the usual mild reactions. He could not take such large doses by the mouth as the other patients as such doses gave him gastric dyspepsia.

\* See *Indian Medical Gazette*, March 1918, p. 98.

Treatment had frequently to be omitted owing to blocking of the veins.

*Result*—Lesions considerably improved. In considering this question the concomitant diseases of syphilis and tuberculosis must be taken into account, especially as they were untreated, as far as I could make out.

*Condition, April, 1917.*—The patient has had leprosy for one year. He has been in prison six years, therefore it appears that he was infected in the prison.

The patient has maculæ on the face, both arms, both legs, chest and back.

Anæsthesia of the inner half of right thigh and all the right leg and foot.

Anæsthesia of left foot, both hands, both ears and both cheeks.

Both ulnar nerves are much thickened.

*Bacteriological examination of nose*—Positive.

*Diagnosis*—Maculo-anæsthetic leprosy.

*Condition, June, 1918.*—This patient has not been injected for four months, as he has been in hospital with multiple abscesses in the buttocks, which had nothing to do with previous injections. He has, however, been taking the drug by the mouth, gr. 80 per day, and for the past ten days has shown a reaction in the shape of the maculæ which had disappeared having reappeared, but with greatly increased redness and fresh redness and swelling of hands and feet, pains, etc.

Anæsthesia disappeared from right thigh and improved in right leg. No change in right foot.

Anæsthesia still present in left foot, fingers of right and left hands, partial anæsthesia of cheeks, no anæsthesia of ears.

*Result*—Some lesions improved, but as he at present is suffering from a reaction, it is difficult to judge of the extent.

*Condition, July 20th, 1918.*—All reactionary symptoms have disappeared, and the maculæ have almost entirely disappeared, only faint traces remaining.

Remaining anæsthetic patches seem to be slightly improved.

*Condition, April, 1917.*—He has been in prison for 14 years and has only had leprosy for 8 years, therefore it appears that he was infected in the prison.

This is a typical, well-marked face of mixed leprosy with well-marked, leonine face, and erosion of nasal bones. Tubercles on ears, neck, chin, eye-brows.

Anæsthesia all round the neck but complete anæsthesia on left side of neck. Anæsthesia of hand, arms, legs and feet.

Trophic ulcers on the soles of both feet.

*Bacteriological examination of nose*—Positive.

*Diagnosis*—Mixed leprosy.

*Condition, April, 1918.*—The leonine appearance of the face has returned as far as possible to the normal. There is still disfigurement but it is due to the scarring left, the ears are normal.

The trophic ulcers of the feet have disappeared. The anæsthesia has completely disappeared.

*Result*—Complete disappearance of lesions.

*Condition, April, 1917.*—He has had leprosy for 5 years and has been in prison for 2 years.

His whole body is covered with tubercles of varying sizes, clustered and single, from the size of a pea to a pigeon's egg.

There are maculæ accompanied by dermatitis on both arms. There is complete anæsthesia of both legs and feet, arms and hands.

*Bacteriological examination of nose*—Positive.

*Diagnosis.*—Mixed leprosy.

*Condition, April, 1918.*—This patient has shown not the slightest improvement and his condition is almost identical with that in April, 1917. He takes the drug in large doses badly, showing the toxic symptoms described. Reactions are frequent and severe.

*Result*—No improvement.

*Condition, April, 1917.*—He has been in prison 5 months and has suffered from leprosy for 1 year.

He has two large maculæ on right thigh with pale centres and red margins, there are several small pale maculæ on his left arm. Maculæ on his face. All these maculæ showed complete anæsthesia. He has complete anæsthesia of his hands and feet. He has a trophic ulcer on the point of his left elbow and another at the base of the great toe on the right foot.

Bacteriological examination of the nose shows an extraordinary number of lepra bacilli, chiefly in clumps.

*Diagnosis*—Maculo-anæsthetic leprosy.

*Condition, April, 1918.*—All maculæ have completely disappeared, and the patient seems to have completely returned to the normal with the exception that his great toe was amputated and the wound is not quite healed. The anæsthesia has completely disappeared, the ulcer at point of left elbow has healed. This patient is taking the maximum dose of sodium gynocardate "A," *i. e.*, gr. 5 intravenously (10 c. c.) three times a week and gr. 40, by mouth, daily.

*Result*—Complete disappearance of all lesions.

*Condition, April, 1917.*—Patient has had leprosy two years, and has been in prison for three years, so that it appears that he has been infected in prison.

His body and face are covered with red maculæ of varying sizes; some have pale centres. There is an extensive dermatitis of both legs and feet and arms. The hair has fallen out of both eyebrows and eyelashes are very scanty. Ptosis of the left eyelid.

Absolute anæsthesia of both arms, hands, legs and feet.

*Bacteriological examination of nose*—Positive.

*Diagnosis*—Maculo-anæsthetic leprosy.

*Condition, April, 1918.*—The small scattered maculæ have all disappeared with the exception of one or two remaining faint red marks on back and belly.

The dermatitis is much improved except over one shinbone where it is in the same condition as a year ago. Eyelashes now are normal. Eyebrows have grown and moustache and beard now growing freely. Anæsthesia of both legs and feet is improved but not yet normal, *i. e.*, he can feel pinching but not stroking only. Feet remain partially anæsthetic. Anæsthesia of hands and arms has completely disappeared with the exception of one small spot on left outer arm below elbow where a fresh reactionary swelling seems to be just breaking out. His general health is now normal, he now never suffers from acute joint pains.

*Result*—Considerable improvement.

*Condition, October, 1917.*—Patient has had leprosy 15 years. He has been in prison seven years, and during that time has not been isolated till eight months ago.

The patient's whole body and face are covered with disseminated tubercles. There are dark-red maculæ (almost black) on face, chest, back and right lower leg. These have distinctly raised margins. There is a large dark-red macule on back with raised edges shewing extensive scaly dermatitis. Complete anæsthesia of all above-mentioned maculæ, also of outer side of right foot, inner side of left foot and right wrist.

*Diagnosis*—Mixed leprosy.

*Condition, April, 1918, i. e.*, after seven months' treatment—All tubercles have completely disappeared, the dermatitis has almost completely disappeared but not all, the macular thickening of maculæ on face much reduced in size and almost of normal colour with two exceptions.

*Anæsthesia*—Sensation has returned in all maculæ with the exception of a small 2-inch patch on back and a similar patch on the outside of the right foot. The patient's general health has much improved.

*Results*—Lesions very markedly improved.

*Condition, October, 1917.*—Patient has had leprosy for 20 years and has been in prison for one year.

There are two large pale maculæ covering a large part of both thighs and extending down below the knee-joints. There are pale-coloured maculæ on chest, face and both arms. Retraction of left hand.

Complete anæsthesia of all maculæ. Anæsthesia of both hands, legs and feet.

*Diagnosis*—Maculo-anæsthetic leprosy.

*Condition, April, 1918, i.e.,* after seven months' treatment.—Maculæ have markedly returned towards normal skin colour though those on thighs are still quite evident.

No anæsthesia of body, face or hands but partial anæsthesia, *i.e.*, can feel pinching but not stroking where formerly he could not feel the prick of a pin, still remains from the thigh to the feet.

*Results*—Considerable improvement.

*Condition, October, 1917.*—He has been in prison 2 years and has only had leprosy for 1 year, therefore it appears as if he had been infected while in prison.

He has a small red macula on nose, small maculæ on both forearms and one on back of left thigh. Dermatitis of both arms, both legs and feet, but most marked on right thigh.

Complete anæsthesia in all maculæ, anæsthesia of both hands and feet.

*Diagnosis*—Maculo-anæsthetic leprosy.

*Condition, April, 1918.*—All anæsthesia has disappeared with the exception of that of both feet. The maculæ on the face and arms have disappeared. Maculæ on back of thigh still evident.

Dermatitis has disappeared from his arms but is still present on his legs, though much improved.

The patient has many syphilitic scars on his body, which somewhat reduce the value of the photos.

*Result*—Considerable improvement.

*Condition, November, 1917.*—The patient has been in prison for 2 years and 9 months. He has only had leprosy for 1 year and 3 months, therefore it appears as if he were infected in the prison.

He has dark-red maculæ on face, arms, left scapular region, thighs and legs. All are completely anæsthetic.

Dermatitis on both arms, left thigh, left leg and both feet.

Anæsthesia of left leg and foot, and also of both hands.

*Diagnosis*—Maculo-anæsthetic leprosy.

*Condition, April, 1918* (6 months' treatment).—Almost complete return of normal sensation. The dermatitis has disappeared.

The maculæ have disappeared in places and now only show on the face and right arm, though much improved.

*Result*—Considerable improvement.

*Condition, November, 1917.*—He has been in prison for 1 year and has had leprosy for two years.

He has disseminated tubercles on his face, arms and body.

Anæsthesia of left foot and ring-finger of left hand.

*Diagnosis*—Mixed leprosy.

*Condition, April, 1918.*—The tubercles have completely disappeared from the body, a few still remain on the arms and face, the latter being markedly reduced in size.

Anæsthesia has completely disappeared.

*Result*—Considerable improvement.

*Condition, February, 1918.*—Patient has been in prison for 5 years and has only had leprosy for 2 years, therefore it appears as if he were infected in prison.

He has small red maculæ on both cheeks, on thorax and abdomen, which are very slightly anæsthetic. There is complete anæsthesia of fourth toe of right foot.

*Diagnosis*—Maculo-anæsthetic leprosy.

*Condition, June, 1918*—The maculæ have entirely disappeared and the only remaining symptom is the anæsthesia of fourth toe which now is only partial, *i.e.*, he can feel it when the skin is pinched.

*Result*—Marked improvement.

#### CONCLUSIONS.

1. Of these 13 cases, 7 cases have only shown the symptoms of leprosy some time after being imprisoned, therefore it appears as if they were infected in the prison, especially as no method of isolation was employed and as the prison has contained lepers for many years past.

2. Maculo-anæsthetic	... 9 cases.
Mixed leprosy	... 4 "
3. All lesions disappeared	... 2 cases.
Very marked improvement	... 3 "
Considerable improvement	... 6 "
Improvement	... 1 case.
No improvement	... 1 "

Total ... 13 cases.

4. Neither the duration of the disease nor the type of the disease seems to have any marked influence on the rapidity of the improvement. The cases showing most rapid change being—

Case No. 4, with duration of disease 8 years, mixed leprosy.

Case No. 6, duration of disease 6 months, anæsthetic leprosy.

Case No. 8, duration of disease 15 years, mixed leprosy.

5. In my opinion, the relief granted to the patient by the improvement of his general health, together with the almost universal improvement of the symptoms of the disease, indicate that the treatment by sodium gynocardate A is indicated in all cases of leprosy of whatever type or duration. And that although it is still too early to state definitely that the treatment is specific and curative, the results already obtained strongly indicate that happy result.

#### THE ETIOLOGY OF SPRUE.

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SPRUE is among the "Tropical Diseases" of which the etiologies are unknown; and a variety of causes of this disease have been suggested.

Success is more probable, when seeking for the causal organism of a chronic disease, from a study of it during its onset in each patient before the disease has progressed and lowered the resistance of the body which will favour the appearance of secondary organisms, or when the disease occurs in its aberrant forms.

Kohlbrugge (1) was the first to record that yeasts may appear in large numbers in the alimentary