

Blackwater. pro.

REPORT
OF THE
MEDICAL RESEARCH
INSTITUTE

FOR THE YEAR

1916.

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PUBLISHED BY
THE GOVERNMENT PRESS,
LAGOS, NIGERIA.



MEDICAL RESEARCH INSTITUTE,
LAGOS.

ANNUAL REPORT, 1916.

The eighth Annual Report is presented herewith.

The work done has been described under main headings which will be found in the index.

Dr. Connal was on duty from 1st January until 6th April and from 9th September until 31st December.

Dr. H. Sinclair Coghill was on duty from 2nd April until 31st December.

The post of Laboratory Attendant remained vacant throughout the year.

There were no changes in the native staff.

It was again a privilege to undertake the medical supervision of the adjacent Lunatic and Leper Asylums.

Meteorological records, which were taken daily, and the bacteriological analyses of the Lagos Water Supply, which were made regularly, are not included in this Report, as the figures can be found in the publications of the Departments concerned.

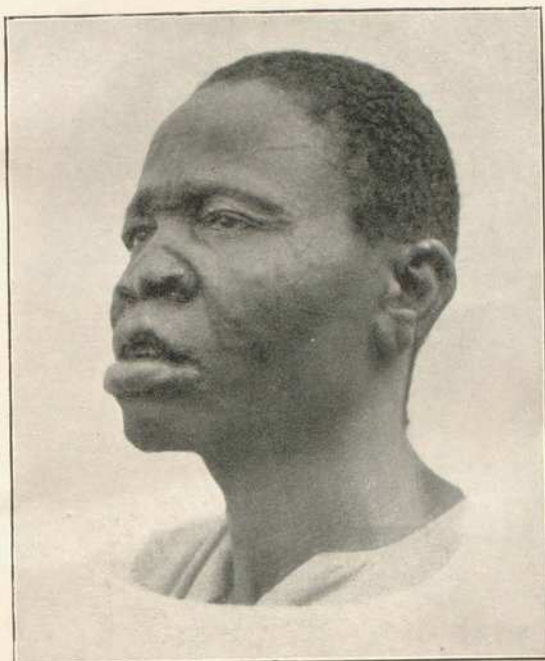
HELMINTHIASIS.

It is rare to find a sample of faeces from a native West African free from ova of one or more of the worms *Ascaris*, *Ankylostomum* and *Trichuris*.

CASE I.



May, 1916.



December, 1916.

CASE II.

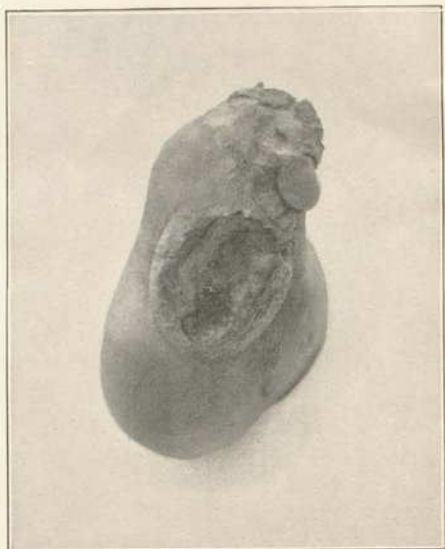


May, 1916.

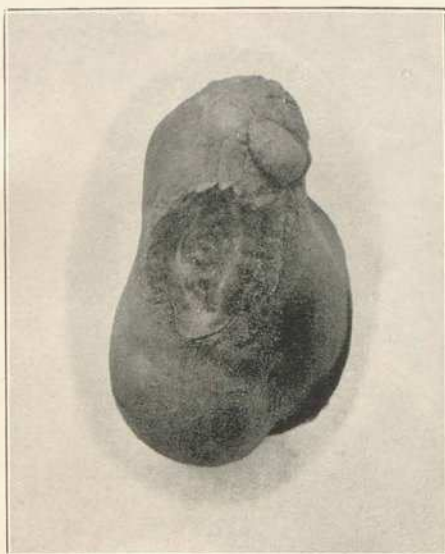


December, 1916.

CASE VII.



September, 1916.



December, 1916.

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Not one, but many whole-time statisticians would be required and such observers would have to remember amongst other things that it is given to few officials, non-officials and others to remain long in one station, that "a go of fever," in West Africa is, to many, Europeans and natives alike, less upsetting than a "common cold", and forgotten within a week or two, and also that while there are over 17 million inhabitants of Nigeria there are less than fifty qualified medical men to attend to their illnesses.

*But it is the European, Syrian doctor that are
required not the Negroes*

LEPROSY.

The method of treatment of this disease, described by Surgeon Victor G. Heiser, U.S. Public Health Service, in his Report "Leprosy. Its treatment in the Phillipine Islands by the hypodermic use of Chaulmoogra Oil Mixture" has been tried with some of the inmates of the Yaba Leper Asylum.

The treatment was begun in May, 1916 so that it is as yet too soon to make a complete report, more particularly as all the patients are old-standing cases.

The outstanding results only are described, and some photographs are attached.

The oil-mixture used was that recommended by Heiser, Chaulmoogra oil 60 cc, Camphorated oil 60 c.c. and Resorcin 4 grains. The mixture was sterilised by boiling, and 2 c.c. injected intramuscularly into the buttock, were given as an initial dose. After the lapse of one week, 3 c.c. were given and this dose was increased by 1 c.c. per week until 8 c.c. were being administered. Beyond this amount some discomfort was complained of, so that the procedure finally adopted was to inject 6 c.c. twice a week. This dose was well tolerated and every case responded to treatment. The most rapid and obvious effect was the healing of ulcers, many of them large and deep, and of many years' duration. Softening, then absorption of the nodules, fading of the maculæ and the return of sensation were also observable, even to the patients themselves. Seven cases have been selected for description.

Case I, Male. Age 38 years. Inmate of Asylum for 4 years. First noticed the disease 11 years ago.

Face leonine. Skin of face infiltrated and yellowish in colour.
Nodules on cheeks, ears, lips and nose.

Anæsthetic patches, both arms and both legs.

Maculæ right hand and both legs.

Treatment begun 19.5.16.

By December, 1916, the nodules had been considerably absorbed, particularly in the lips, nose and ears. The photographs show distinct wrinkling where absorption has taken place, and the lips, nose and ears are smaller. Sensation has returned in both arms, but only slightly in the legs, whilst the maculæ have disappeared except from the lower part of the legs.

Case II, Male. Age 21 years. Inmate of Asylum for 6 years. First noticed the disease 7 years ago.

Leonine expression. Skin of face thickened. Large nodules over and between eyebrows and on nose, cheeks, ears and lips.

Anæsthetic patches, both arms and both legs.

Maculæ on shoulders, back, buttocks, chest and abdomen.

Treatment begun 19.5.16.

By December, 1916, the nodules on cheeks, lips, ears and nose had in great part been absorbed. The anæsthesia had disappeared from the arms except for a small area on the left.

The maculæ had completely disappeared.

Case III, Male. Age 40 years. Inmate of Asylum for 11 years. First noticed the disease 24 years ago.

Greater part of both arms from elbow downwards, anæsthetic.

Similarly with both legs from knee downwards, and also an area above right knee. Also two areas on the back of the trunk.

Many maculæ on chest, abdomen, shoulders and back.

Treatment commenced 19.5.16.

By December, sensation had returned to both arms except from the wrist downwards.

The anæsthesia had also disappeared from the area above the right knee, and below the knee in both legs a slight recovery of sensation had taken place.

The maculæ had completely disappeared except from the abdomen, where they were becoming more faint.

Case IV, Male. Age 30 years. Inmate of the Asylum for 3 years. First noticed the disease 7 years ago.

Both arms anæsthetic, left from two inches above elbow, and right, from just below elbow, downwards. Patches of anæsthesia over left ankle and foot; and right leg from below knee completely anæsthetic.

A deep ulcer, active over 2 years at the base of left middle finger, extending down into the palm. An ulcer also on stump of left ring finger.

Treatment begun 19.5.16.

By December, sensation had returned to the left arm as far as the elbow (downwards there was still anæsthesia) and on the right arm sensation was present as far as the wrist. There was complete sensation in the left leg, but only a slight return in the right.

Both ulcers had completely healed.

Case V, Male. Age 45 years. Inmate of Asylum for seven years. Disease started "when a small boy."

Anæsthesia over left arm from elbow downwards except for a small area at back of wrist. The left knee and foot are anæsthetic.

Patches of anæsthesia back and front right leg, below knee.

A large deep ulcer $2\frac{1}{2}$ " in diameter on sole of left foot.

Treatment begun 28.9.16.

By December, sensation had been completely restored to the left arm and right leg. Over the left knee also sensation had returned but there was little improvement below the ankle.

The ulcer had completely healed.

Case VI, Male. Age 25 years. Inmate of Asylum for two months. First noticed the disease two years ago.

The face and the back of the head and neck, with numerous maculæ, all anæsthetic.

Treatment begun 5.6.16.

By December, 1916, sensation returned, except to a small patch over occipital prominence.

Maculae have disappeared except from left cheek.

Case VII, Female. Age 50 years. Inmate of Asylum for 12 years. Disease started 24 years ago.

Both wrists and hands anæsthetic, also some anæsthetic patches on right upper arm. Complete anæsthesia below knee, lower two thirds of left leg.

Maculae on left breast and both upper arms.

A large, deep, ragged ulcer middle third of left sole. Another ragged ulcer over area formerly occupied by base of left toes.

Treatment begun 28.9.16.

By December, 1916, sensation had been restored in the right upper arm and there was a slight improvement at the wrists. Sensation had returned half way down the left leg. The ulcer which occupied the area at the base of the toes had healed and cicatrised and the ulcer on the sole was filling up with healthy granulations.

Thanks are gratefully given to Dr. Pickels, Principal Medical Officer, Northern Provinces, Nigeria, for suggesting this course of treatment.

It should be added that Guaiacol Carbonate in five grains doses twice daily was found useful in controlling the febrile disturbance.

SPIROCHLETOSIS.

Spirochaetes similar to *Spirochaeta eurygyrata*, Werner emend. Fantham, were observed in the faeces of 3 European and 35 native patients suffering from dysentery or diarrhoea and in 1 European and 27 native healthy individuals. The total number of the former examined was 102 Europeans and 156 natives. The number of healthy individuals was 29 Europeans and 170 natives.

For staining purposes Giemsa's method was employed. The smears were made in the usual manner and fixed whilst wet in osmic acid vapour. They were then placed in absolute alcohol to harden.

In fresh specimens from faeces examined a few hours after being passed, the movements of these parasites were exceedingly rapid, consisting of a regular wave-like flexion of the body by means of which they were able to move backwards or forwards with equal facility and a corkscrew movement especially noticeable when in contact with faecal matter. The more rapid the movement the greater the number of waves or curves of the body observed in the same organism. In stained specimens the number of these varied between 2 and 10, depending also a good deal on the length of the parasite and to a lesser extent on its relative thickness—the thicker the parasites the smaller the number of waves and *vice versa*. In the very short members the movement was far more erratic.

As a rule the ends of the parasite were more or less pointed. No vacuoles were noticed in the body itself, but occasionally a diffuse nucleus in the form of chromatin granules could be made out.

The length varied greatly being 3 μ . in the shortest to a little over 14 μ . in the longest. With regard to breadth two varieties were noted, one being distinctly thicker and staining deeper than the other. To arrive at the exact measurement of these was not easy. The thickest would be probably rather less than 0.2 μ .

CASE IV.



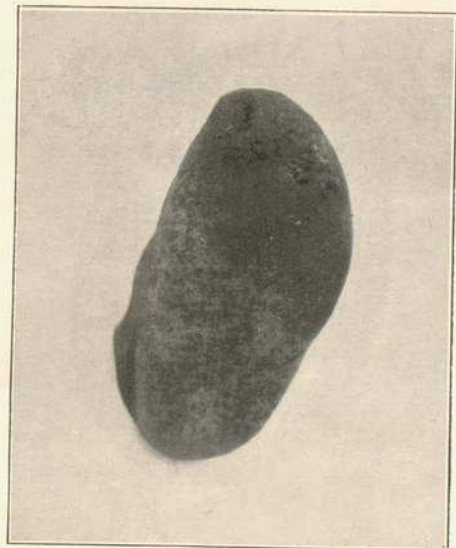
May, 1916.



December, 1916.

CASE V.

Large deep ulcer,
 $2\frac{1}{2}$ inches in diameter,
sole of left foot.



December, 1916

September, 1916.