L'Huile de Citronnelle dans la Lèpre.

(a) Traitement par l'huile de chaulmoogra formule Peirier.

<table>
<thead>
<tr>
<th>Année</th>
<th>Tétracés</th>
<th>Nérophénol</th>
<th>Anthracène</th>
<th>Somme</th>
<th>Pétrole</th>
</tr>
</thead>
<tbody>
<tr>
<td>1941</td>
<td>1.423</td>
<td>60</td>
<td>128</td>
<td>1.991</td>
<td>35</td>
</tr>
<tr>
<td>1942</td>
<td>2.309</td>
<td>101</td>
<td>123</td>
<td>1.570</td>
<td>173</td>
</tr>
</tbody>
</table>

(b) Traitement par essence de citronnelle.

<table>
<thead>
<tr>
<th>Année</th>
<th>Pétrole</th>
<th>Acétate</th>
<th>Tétracés</th>
<th>Nérophénol</th>
<th>Somme</th>
<th>Pétrole</th>
</tr>
</thead>
<tbody>
<tr>
<td>1943</td>
<td>2.509</td>
<td>114</td>
<td>223</td>
<td>1.769</td>
<td>95</td>
<td></td>
</tr>
</tbody>
</table>

Summary.

Owing to war time difficulty in obtaining chaulmoogra oils the author sought for an oil of somewhat similar constitution as a substitute, and turned to the essence of citronella, which is obtainable from a very common Congo plant. A quantity of the oil from the Congo plant of the family Cymbopogon was distilled, the condensed vapour collected and the oil separated by its density from the water of distillation and diluted one part with nine of cotton seed oil to reduce its irritant properties on injection under the skin, or intramuscularly. The doses are 1 c.c. in the first week, 2 c.c. in the second and 3 c.c. in subsequent weeks, after which 15 days interval is allowed before continuing the injections. Stronger doses proved harmful in lepromatous cases. The results are detailed in the tables, from which the author concludes that without claiming the treatment to be a panacea against leprosy, he feels justified in asserting that the essence of citronella is comparable in its effects with those obtained with chaulmoogra oils as judged by the results obtained in the Congo leprosaria during the last three years.

Leprosy in Antigua.

Report on 2nd visit to Antigua, from 4th to 15th July, 1944. The first visit was from 28th January to 3rd February, 1942, the Report of which was published in Leprōsy Review, January, 1942, pp. 33.

E. Muir.

Since my visit to Antigua two and a half years ago, progress has been made in the control of leprosy. The staff has been improved at the Leper Home, and there has been more follow-up of contacts leading to earlier segregation of infectious cases. This report should be read in conjunction with the previous one.
The following table shows in classification according to type the numbers of male and female lepers under segregation in the Leper Home in 1942 and in 1944:

<table>
<thead>
<tr>
<th>Types</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-1</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>N-2</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>N-3</td>
<td>4</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>L-1</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>L-2</td>
<td>6</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>L-3</td>
<td>9</td>
<td>7</td>
<td>16</td>
</tr>
<tr>
<td>Arrested</td>
<td>3</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>20</strong></td>
<td><strong>17</strong></td>
<td><strong>37</strong></td>
</tr>
</tbody>
</table>

Deducing the arrested cases for each year, there are 40 active cases in 1944 as compared with 29 in 1942, an increase of 38 per cent. The increase is chiefly in the less advanced lepromatous (open) cases under L-1 and L-2, of which there are 13 as compared with 2, suggesting that open cases are being detected in the earlier less conspicuous stage. The increase in the number of active cases might mean an increase of the disease in Antigua, but it might also mean that more care is being taken in the follow-up of known cases. It should be noted that while the number of active male cases has increased from 17 to 30, that of active female cases has diminished from 12 to 10.

There are also 27 cases who are or will be placed under treatment outside the Leper Home, being closed cases of the neural type; one open case is being admitted to the Leper Home; 14 arrested cases live in their own homes and are inspected from time to time.

This makes a total of 90 known cases but, judging from the number discovered during my visit, there are likely to be others who have not yet been detected.

**Leper Home.**

Staff. Recently a Matron trained for two years at Chacachacare has been appointed, and, as recommended in my last Report, a male attendant. A new Master has also been appointed. There are 3 female nursing assistants, 2 cooks, a scullery maid and a laundress. The male attendant lives in town and cycles out to the Home three times a week. He should have a two-room house beside the Home so that he can give more time to his duties.

I understand that the question of the pay of the nursing assistants, of which there are three, of the laundress, and of the three servants who cook and serve the food, is to be considered.
Leprosy in Antigua

by a Wage Commission. Those working in a leprosy institution are always at a disadvantage, as such work prejudices against later employment elsewhere. Also the remoteness of the Home makes conditions difficult. These circumstances should be considered in revising their pay. Once the male assistant has a house in the neighbourhood of the Home and can work six days a week, one of the female nursing assistants might be dispensed with. When suitable ex-patients are available, or even suitable closed cases in which the disease is improving, but not yet arrested, they might be employed in the place of subordinate staff.

Buildings.

1. House for the Male Attendant. This is most urgently required. A two roomed cottage with accessories should suffice.
2. Female Staff Quarters. A two storey building is suggested, with common room and two double rooms for cooks and laundress below, and rooms for the Matron and two nursing assistants above.
3. Administrative and treatment quarters are badly needed, the present accommodation being quite inadequate and unsuitable.

Diet. The diet is as follows:—
1. Meat or fish five days a week, with pea soup as a substitute on Tuesdays and Fridays.
2. Fresh Milk, 6 ounces daily.
3. Butter, 2 ounces, and pig fat or oil 12 ounces a week.
4. Bread, 8 ounces daily.
5. Rice, ground provision or cornmeal, 6 ounces daily.
6. Sugar, 4 ounces daily.
7. Grape-fruit once a month, lemons occasionally, mangoes abundant in season, occasional boiled greens.

This diet seems to be adequate, both as regards calories and body building materials. The only defect appears to be in green vegetables and fresh fruit; but it is not clear why this should be so, as the patients have gardens and abundance of greens and tomatoes should be raised. I hear that the patients sell their vegetables and eggs outside the Home; this should not be allowed.

Finance. The expense to Government for each patient is about £52 a year, of which about £24 goes to food. From the financial as well as the public health point of view it is important therefore to control leprosy as speedily as possible.

Social Welfare. As in many other Leper Homes the patients
take up the attitude that as Government has segregated them compulsorily so Government must do everything for them. They therefore refuse to do any work for which they are not paid. There is truth in their argument, seeing that they are sentenced in what amounts to jail conditions for long periods, often for life, without having committed any crime against the community. In fact it is the community that has committed a crime against them by infecting them with leprosy. But a cheerful, willing attitude toward life, and open air exercise, such as is best afforded by work in the fields, are essential for their mental and physical well-being, and without these there is little hope of recovery or improvement.

The difficulty in an institution like that in Antigua, is that the small number of patients does not permit of a whole-time superintendent of high standing. Also the medical care of the patients is only a small fraction of the duties of the visiting Medical Officer, who has to attend also to all his dispensaries and other medical duties.

The Home therefore suffers from the lack of the constant supervision of an officer of higher education and experience such as would be supplied in a larger institution. The present staff of Master, Matron and Male Attendant, have not the necessary standing and experience to influence the patients and lead them along the right lines. They are worried and harried by the patients and an atmosphere of discontent and ill-will is created.

It has been suggested that small Leper Homes should be replaced by a central institution for the British West Indies. This suggestion has been considered from time to time, but there are considerable difficulties in the way. The Trinidad Government has given consent to a limited number of lepers being admitted from the other Colonies to Chacachacare, but only those would be admitted who came voluntarily and in whom there was a prospect of recovery under treatment. As removal to a distant Colony would mean complete cutting of connections with home and relatives for a number of years and perhaps for life, it would be difficult to obtain the consent of more than a limited number to such exile. Also there would be a large proportion still left in each Leper Home, a remnant of the most hopeless and discontented, who would still have to be looked after, making the overhead charges per patient even larger than at present.

Another suggestion is that while the present whole-time staff fall at present adequately to influence the patients in spite of their best efforts, they might succeed better with the outside help of an honorary visitor, provided someone of experience, standing and sympathy, were willing to give such help. Such a
LEPROSY IN ANTIQUA

A visitor would be in touch with patients and staff and be able to trace the causes of friction and misunderstanding, and suggest solutions. The visitor would also be in touch with the outside world and be able to enlist others who would like to give useful help, but do not know how, and arrange for entertainments and other amenities for the patients. The visitor might also obtain help from the agricultural, educational, and other departments when required, and could be consulted by the Medical Department in matters concerning the welfare of the patients.

Other Suggestions. One of the chief difficulties in running the Leper Home is its remoteness and the difficulty of communications. This makes it difficult for the patients' friends to visit them, difficult to bring supplies, and difficult for the staff to get to town. I suggest that there be definite visiting days for patients' friends, twice a week between certain hours, and that a truck or other suitable vehicle be run from St. John's to take them to the Home and back, supplies also being brought from town at the same time. The limiting of visiting hours would be an advantage in respect of public health, as at present relatives come at any time they please, sometimes eat with the patients and even spend the night in their quarters.

No healthy children of under sixteen should be allowed into the Home at any time, nor should patients be allowed to wander into surrounding villages, or sell their agricultural, dairy and other produce to people outside the Home.

The patients are very ignorant of leprosy, its nature and how it is spread. The staff do their best to enlighten them, and I spent some time explaining these matters to them. But regular periodic talks on leprosy and other health subjects should be arranged, as it is only by the repetition of facts in new, interesting and impressive ways, and especially by people from outside of recognised standing, that their superstitions, taboos and prejudices can be removed.

LEPROSY CONTROL.

There is reason to believe that there are now fewer open cases outside the Home than on my former visit. But leprosy often takes as much as 10 years to come; contacts must be listed and examined if the disease is to be brought under control.

I gave four lectures, one in St. John's and three in country centres, all of which were well attended by interested audiences. It would appear that there is large scope for health education by this and similar methods.

Changes have recently been made in the Leper Act and Rules along the lines recommended in my former Report.
Arrangements should be made for free treatment of early closed cases at suitable centres. Under medical supervision nurses trained for the purpose might give the injections. The intradermal injection of lesions in these cases has not yet been widely used; by this method many cases both in the Lepper Home and outside could be quickly cleared up.

Acknowledgments.

This study has been made under the auspices of the Controller of Development and Welfare in the British West Indies and his Medical Adviser. I wish to acknowledge the interest taken by H.E. the Governor of the Leeward Islands, and to thank especially the Federal Senior Medical Officer for his hospitality, kindness and help during my visit to Antigua.