

INTERNATIONAL JOURNAL OF LEPROSY

VOL. 6

JANUARY-MARCH

No. 1

THE ANTILEPROSY CAMPAIGN IN EGYPT

BY MOHAMED ABDEL KHALIK EL DALGAMOUNI, M.D. (JENA)

*Leprosy Inspector, Section on Chest Diseases and Leprosy
Ministry of Public Health, Egypt*

INTRODUCTION

The history of the Ancient Egyptians is not a legend of an imaginary civilization told by the historians. The ruins of the Pharaohs with their hieroglyphic sculptures scattered all over the land, the papyri found in the tombs and temples, and the excavations carried out day by day, are all unchallengeable proofs of that ancient civilization. According to many papyri that are in various museums, the Ancient Egyptians seemed to be pioneers in medicine, with Imhotep, the God of Medicine, predominant. Different diseases were described in those papyri, and prescriptions for their treatment were recorded.

Among the different diseases that were known in ancient times was leprosy. In the famous papyrus of Ebers and that of Brugsch good descriptions of a disease simulating leprosy are found. Those papyri are some 3,500 years old, dating from about fifteen centuries B.C. It is probable that the disease was known in the country long before that.

Not only were prescriptions mentioned for the treatment of the disease, but also measures for combatting it were laid down. All the lepers known at that time, amounting to some 80,000, were expelled from the cities and were made to live in a special town known as "Avaris," or the City of Mud, in the northeastern part of the Delta. Are we any farther ahead of those ancient people today, after a period of 4,000 years and in spite of our present civilization?

copy 1604

During the reign of Ramses II (about 1324-1258 B.C.) the disease was said to be prevalent in the country, especially among the slaves captured by the Great Warrior and his mighty army in his wars against Abyssinia, which is considered as a mother country of leprosy and is still a highly endemic center. The Jews, according to some historians, were expelled from Egypt partly because leprosy was prevalent among them. The disease seems to have declined in Egypt since that time, but there are proofs that it was still endemic during the Ptolemaic Dynasty, shortly before the beginning of the Christian era. The Arabian physicians in Egypt also described leprosy, and during the reign of the Mamelukes in the 10th Century A.D. asylums were started for the segregation of lepers but were later deserted.

At the end of the last century and the beginning of the present one steps were taken to estimate the number of cases in the country. The figures obtained in the different inquiries were far from being accurate; although different kinds of skin diseases were mistaken for leprosy the figures were very low.

Dr. Franz Engel Bey, who held the post of director of medical statistics for over thirty years, up to the beginning of the Great War, and who was highly interested in the leprosy problem, estimated that there were roughly 3,000 cases but believed that the real number might be as high as 8,000. These figures are also challengeable.

PRESENT CAMPAIGN

It was not until after the Great War, when control of medical affairs in Egypt was put in the hands of the Egyptians, that the leprosy problem was approached seriously. At the beginning of 1927 I was sent to study leprosy in the Far East, mainly in India and the Philippines, and also in the Straits Settlements and Siam. In those places I had an opportunity to visit most of the important leprosy centers and to get in touch with the competent authorities working in them. Through their courtesy I obtained a thorough training in leprosy diagnosis, treatment and prevention, returning home about the middle of 1928.

Encouraged by the late Minister of Public Health, Dr. Mohamed Shahin Pasha, I started a leprosy outpatient clinic in Cairo on February 25, 1929. The opening of the clinic was announced only once in the current newspapers, in order not to cause a rush of lepers to the city. During March, 1929, 33 patients appeared at the clinic, of whom 24 were lepers and 9

suffered from other skin diseases. The number of patients grew gradually, and by the end of December 392 had attended the clinic, of whom 208 were leprous.

About two-third of those patients had had the disease for more than five years, according to their own declarations. The other one-third, who claimed to have had it for less than that time, were also mostly chronic cases, some of them quite "burned out." Among the whole number I was able to find only one really early case; that one, with only a small anesthetic patch on the knee, was sent in by a country doctor who a few weeks before heard a lecture delivered by me before the Egyptian Medical Association.

In my first report to the Minister of Public Health I laid down the principals of the campaign as follows:

1. First, to start outpatient clinics in the highly endemic centers, to serve both for treatment of patients and as survey centers.
2. To start an agricultural colony for segregating the infectious cases under conditions that would permit them to live more or less normally.
3. To carry out a well organized system of propaganda:
 - a. To teach doctors and laymen to detect and to suspect leprosy.
 - b. To teach lepers to seek immediate treatment.
 - c. To teach the public, mainly in the provinces, hygienic measures of life which will serve to protect them against infection by the disease.

These fundamental proposals were approved and I was entrusted to carry them out. On the basis of the old statistics prepared by Engel Bey, and in the belief that the disease was more or less evenly distributed in the country, two new outpatient clinics were opened in April, 1930, one at Zagazig in Lower Egypt and the other at Suhag in Upper Egypt. In June thirty beds were provided at the Cairo clinic, for leper patients who were in need of hospital care. Steps were taken to build a colony for lepers at Abu Zabaal, a healthful area some twenty miles to the northeast of Cairo. A grant of £50,000 was used in building the hospital of the colony, to accommodate 100 patients, and also in making roads and initiating a scheme to provide an ample water supply.

The figures of my second report (for 1930) were encouraging and convinced the medical authorities of the importance of the leprosy problem in Egypt and of the necessity of making further grants for the campaign. Among the 1,015 patients who had attended the three clinics that year there were 433 lepers. Another locally trained medical officer was sent to the Far East (India and

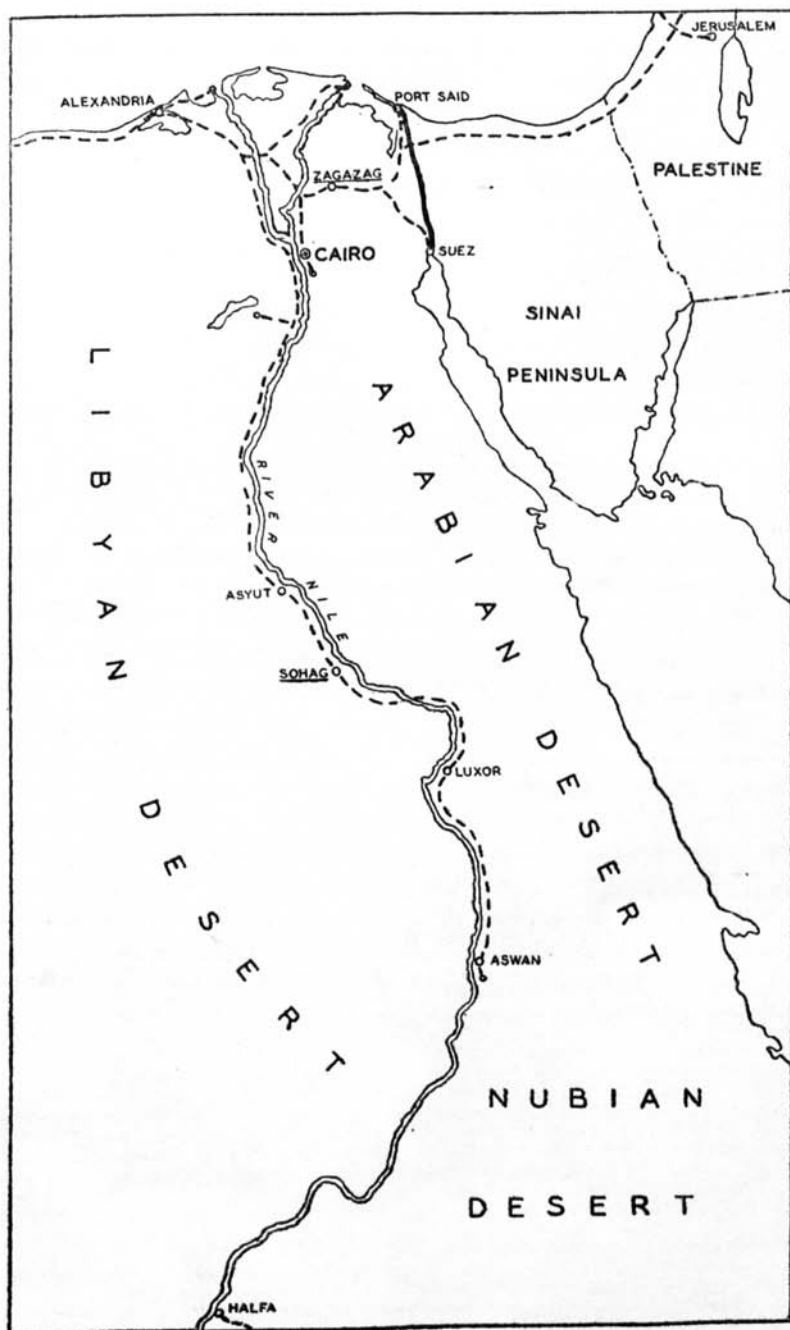
the Philippines) to visit the different leprosy centers and study the antileprosy measures employed there, in order to assist effectively in our local campaign.

In 1931 two more outpatient clinics were opened, one at Tanta in Lower Egypt and the other at Minya in Upper Egypt. During this year it was noticed that though the number of the newly discovered lepers was large, the attendance of those who had been discovered in the previous two years decreased considerably. This was not surprising because these people, in Egypt as everywhere else, were mostly from the poorer classes who could not afford the expense of travelling from their villages to attend the clinics, where treatment was given twice weekly.

To meet this difficulty two branches of each of the four provincial outpatient clinics were established during 1932 and 1933, each of them within twenty miles of the main clinics. This procedure resulted in a good increase of attendance of the old patients, and more new ones were discovered. A motor car was supplied to each of the four main clinics, by which the medical officers could travel the main roads between the different villages and treat the lepers as near as possible to their own homes.

Under the pressure of lepers seeking refuge in some sort of asylum, twenty beds were added to the thirty of the Cairo inpatient clinic, but by June it became necessary to open the hospital of the new colony at Abu Zaabal, though the water-supply project was not yet finished and temporary measures had to be taken to meet that deficiency. In a short time the 100 beds available were all occupied and more had to be added, both there and in the Cairo leper hospital. As the sexes had to be separated the women were placed in the Cairo hospital and the men at Abu Zaabal. The present accommodation is 150 in Cairo and 250 at Abu Zaabal.

The experiment of using motor cars at the provincial clinics proved very successful. More patients attended and new ones were discovered. This encouraged us to extend the activity in the neighboring villages. Treatment was made once weekly, and two more branches were added to each provincial clinic. In this way we were able to have treatment given in twenty centers under the supervision of only four medical officers, aside from the Cairo hospital where there was one officer and the Abu Zaabal colony where there were three. This was practically the situation at the end of 1936, eight years after the start of our antileprosy campaign.



TEXT-FIG. 1. Map showing location of outpatient clinics.

For 1937 funds were granted for opening three more main provincial clinics, with 12 branches. Medical officers will soon be appointed and trained in the Abu Zaabal and Cairo leprosy hospitals. It is hoped that by the end of 1937 or the beginning of 1938 these new clinics will all be in operation.

STATISTICS ON WORK DONE

Here are given the compiled statistics for the numbers of cases examined in the various clinics since the campaign was inaugurated, and various data on the patients dealt with and the work done in 1936.

TABLE 1.—Total number of persons examined in the leprosy clinics and number found leprous.

Place of examination	Persons examined total	Nonlepers		Lepers ^a	
		Number	Percent	Number	Percent
Cairo leprosy hospital (clinic).....	3,425	1,910	55.7	1,515	44.3
Zagazig clinic and branches.....	1,411	986	69.8	425	30.1
Suhag clinic and branches.....	1,438	664	46.2	774	53.8
Tanta clinic and branches.....	1,506	695	46.2	811	53.8
Minya clinic and branches.....	1,068	552	51.7	516	48.3
Abu Zaabal colony (hospital).....	346	346	100.0
TOTALS.....	9,194	4,807	52.3	4,387	47.7

^a Numbers subject to correction on account of duplications of registration in different clinics.

It will be seen from Table 1 that, of the roughly 9,000 persons who have been examined, slightly less than 50 percent were found to have leprosy. (The proportion was higher in 1936, 70 percent, as is shown in Table 2.) With regard to the total shown for all cases diagnosed (4,387), it is to be said that for one reason or another some patients attend more than one clinic, and thus are entered in the books more than once. To overcome this error a card for each leper is kept in the main office in Cairo, to check their actual numbers, and at the end of 1936 it was found that 215 had been recorded more than once. The true number of individuals certified as being lepers is therefore 4,172; and we are still getting new ones in the old centers. Viewing the map of the country one finds that the present activities cover only about half of the total area inhabited. The disease being evenly distributed in the country, the number of lepers in Egypt can safely be estimated to be 15,000.

The number of persons examined in 1936, and detailed infor-

mation concerning those who were found to be leprous and the treatments given, are shown in Tables 2 and 3.

TABLE 2.—*Data of the clinics, 1936*

<i>New patients, 1936:</i>		
Examined.....	1,031	(total)
Found leprous.....	726	70.3 percent
Found nonleprous.....	305	29.7 percent
<i>Sex of lepers:</i>		
Males.....	570	78.5 percent
Females.....	156	21.5 percent
<i>Civil status of lepers:</i>		
Single.....	374	51.5 percent
Married.....	352	48.5 percent
<i>Type of disease:</i>		
Neural.....	366	50.4 percent
Cutaneous.....	103	14.2 percent
Mixed.....	257	35.4 percent
<i>Bacteriological findings:</i>		
Negative.....	349	48.1 percent
Positive.....	377	51.9 percent
<i>Treatments given:</i>		
Number of chaulmoogra injections.....		80,680
Amount of oil or esters used (cc.).....		286,630
Number of antisyphilitic injections.....		1,257
Number of injections for urinary and intestinal parasites.....		390
Number of dressings.....		178,959

GENERAL

Now that the campaign described has reached its present scope, I think it would be advisable to start a proper scientific survey of the whole country. It did not seem desirable to start such a project earlier for two main reasons; first, because we would have been unable to help the lepers who would be discovered, either in the way of treatment or of segregation, and, secondly, because we did not wish to create among the lepers an atmosphere of misunderstanding or of apprehension about our aims which would cause them to hide themselves. As it is now they come to us voluntarily seeking treatment, they bring their relatives for examination, and some of them are willing to be segregated if they can be given accommodation.

In my proposals for the next year's budget I asked for funds for two survey expeditions, to be supervised by two well-trained medical officers, one to work in Lower Egypt and the

other in Upper Egypt. The object of these expeditions will be to study the epidemiological and endemiological factors in the spread of the disease, to discover and report all lepers, especially the early cases among the contacts, and, finally, to carry on propaganda work among the villagers along the lines that have been indicated. When the public is brought to a proper understanding of the disease, and when its interest is aroused to safeguard itself against and to combat leprosy, eradication of this ailment will be much easier.

TABLE 3.—Ages of 726 patients discovered in 1936, claimed ages at onset, and duration of the disease.

Period	Age				Duration of the disease (by difference)		
	On admission		At onset		Period	Number	Percent
	Number	Percent	Number	Percent			
1-10 years...	41	5.7	102	14.0	1 year..	179	24.7
11-20 years...	171	23.6	228	31.4	2 years..	137	18.9
21-30 years...	267	36.8	222	30.6	3- 5 years..	258	35.5
31-40 years...	145	20.0	98	13.5	6-10 years..	124	17.1
41-50 years...	62	8.5	47	6.5	11-15 years..	15	2.1
51-60 years...	31	4.1	22	3.0	16-20 years..	11	1.5
More.....	9	1.2	7	0.9	More.....	2	0.3

Reasonable isolation of the infectious cases in agricultural centers, with homes for the crippled, is still and should be at the basis of any antileprosy campaign. In our campaign, isolation will at first be in the Abu Zaabal Colony, but other centers, one in Lower Egypt and the other in Upper Egypt, are being studied with a view to the installation of two more colonies, so as not to take the lepers far away from their homes. As regards Abu Zaabal, the hospital and the quarters of the healthy staff are now finished. The erection of the colony itself—referring to the houses of the lepers and all the necessary public buildings, roads, gardens and fields—is at present under consideration. We will try to make the life in these centers so bearable as to substitute the word “emigration” for the hated words “isolation” and “segregation.” In considering the plans in the light of this principle, no effort will be spared to secure for the colony the appearance of a normal town with normal inhabitants—a town, incidentally, in which birth control will be a primary feature of its internal code.

The laws necessary to regulate the segregation of lepers in Egypt are being considered, stress being laid on the fact that these

unfortunate people are not criminals. They should be given every facility for living a comfortable life. It is only right that the community should pay the cost of the campaign if the community is anxious to safeguard itself against this horrible ailment, which for centuries has been and still is a burden upon its shoulders.

So much has been said about construction that it should be said that great care is also given to the treatment of the lepers. Every effort is being made to overcome their economic difficulties by bringing the treatment centers as near as possible to their domiciles. As for the drugs used, the weather in Egypt being fairly cool in winter, especially in the northern parts of the country, we use the ethyl esters of hydnocarpus oil in that season and the plain oil in summer. Injections are given once or twice weekly; figures for the numbers of injections and other features of the treatment work have been given in Table 2. The ulcers of the patients are well cared for, and the numbers of dressings made are large. An ointment containing crude hydnocarpus oil for nose complaints forms a part of the routine treatment.

Great stress is laid on the discovery of accompanying diseases. Each leper is examined and treated for intestinal and urinary parasites (*Bilharzia*), as these are very common in Egypt. In the Cairo and the Abu Zaabal hospitals the Wasserman reaction is made on the blood of each patient, and systematic antisyphilitic treatment is given to those with positive reactions who show corroborative clinical symptoms or histories. Arrangements are under way for the making of an x-ray film of the chest of every inpatient, as tuberculosis is not uncommon among lepers in Egypt. An ophthalmologist and a dentist are also attached to the staffs of both hospitals.

In the way of research nothing has been done yet, for lack of staff and laboratory. One of the medical officers has been sent to England to study bacteriology, pathology and tropical medicine, and will be sent to the Far East to study the special lines of research in leprosy that are being pursued in India, Japan and the Philippines. By the time he returns an adequately equipped laboratory will be ready for him to carry on experimental and research work.

In conclusion I wish to refer to a resolution passed by the International Congress of Tropical Medicine and Hygiene, which was held in Cairo in 1928 on the occasion of the celebration of the centenary of the Faculty of Medicine of Cairo.

First Proposal: International Campaign Against Leprosy.

As this ailment has been and still is a menace to humanity Dr. Germano Correia, the Delegate of Portuguese India, proposed that the governments of all the nations officially represented in the congress should consider and organize a systematic and energetic campaign against leprosy on the following lines:

1. Discovery of the lepers.
2. Organization of ambulant clinics for treating the early cases and bacteriologically negative lepers.
3. Isolation of the bacteriologically positive lepers in comfortable settlements and occasional examination of their contacts.

The proposal was unanimously accepted by the delegates and the resolution was communicated to the League of Nations.

In my opinion the lines proposed by Dr. Germano are very sound, and it can be seen that they have been followed precisely in our campaign. We are glad that, on the occasion of the International Congress of Leprosy which will be held in Cairo in March, 1938, the delegates will have an opportunity to see that campaign.

DESCRIPTION OF PLATES

PLATE I

FIG. 1. General view of the wards of the hospital of the Abou Zaabal Leper Colony.

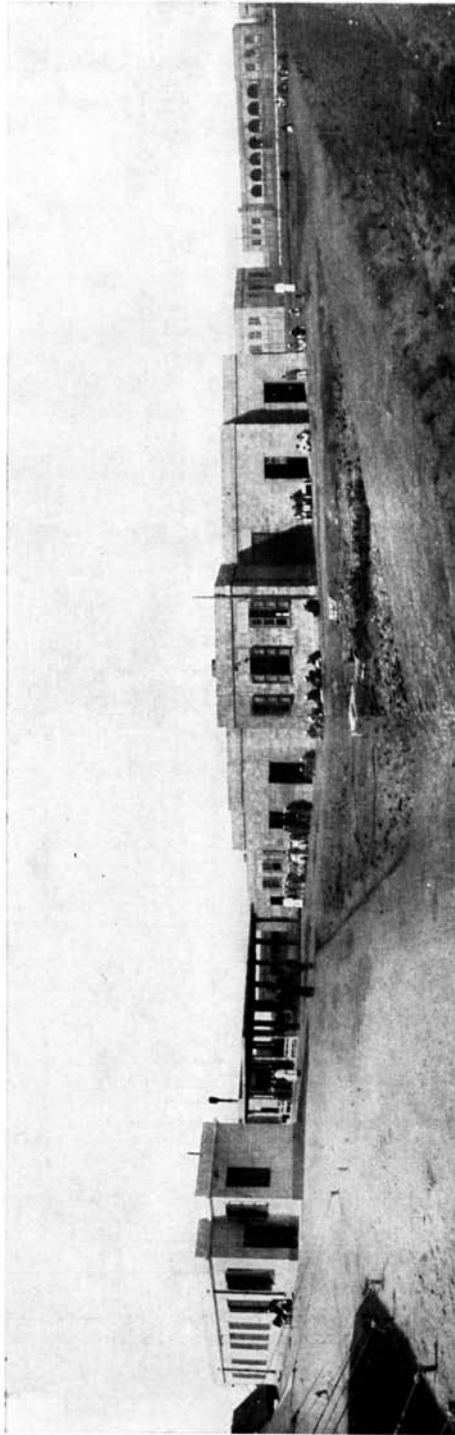


PLATE I

PLATE 2

FIG. 2. Inside front view of the Cairo Leprosy Hospital.

FIG. 3. Provincial travelling leper clinic. Injections given by the roadside.

FIG. 4. Inside of travelling leper clinic.



PLATE 2

PLATE 3

FIG. 5. Tanta Leprosy Main Outpatient Clinic, entrance for staff.

FIG. 6. Same, garden on the male side.

FIG. 7. Same, entrance for patients.



PLATE 3