

Leprosy in South America.

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IN GENERAL.

LEPROSY is a disease that is essentially human and follows the great migratory movements of population as caused by military or commercial operations. It has been known in Africa, China and India for thousands of years, but the place of its origin still remains obscure. It appears to have been known in south-east Europe as early as 350 B.C., having been brought from Asia, and its existence in Great Britain in the seventh century is recorded. It increased greatly in Europe during the Middle Ages, especially during and after the Crusades, but declined in the fourteenth century, after the Black Death in 1349. It appeared in Spain, according to one authority, about 60 B.C., probably brought by the soldiers of Pompey who were returning from their campaigns in Egypt and Syria.

Two decades ago the total number of those suffering from leprosy in the world was estimated at 2,000,000. More

recent statistics give the number as 3,000,000. Moreover, since there are two or three incipient cases in existence for every typical advanced case, the grand total of those infected with the bacillus of Hansen may easily reach the staggering total of 5,000,000, or one to every 370 of the entire population.

There is no record of the existence of the disease in South America before the arrival of Europeans. It is also a well-attested fact that, even to-day, among the native Indians of the far interior of the continent, where they have had little or no contact with outsiders, the disease is unknown. Its appearance, therefore, in this continent, must be attributed to the presence of foreigners, especially those who came from Spain and Portugal in the sixteenth and seventeenth centuries, or, as slaves, from the jungles of Africa.

EARLY EFFORTS TO COMBAT THE DISEASE.

The first leprosarium in the New World, so far as may be historically determined, was established near the beginning of the seventeenth century in Cartagena, a city in what is now the Republic of Colombia. It was at first located in the centre of the city, but, in view of the urgent protests of the people, was later removed to the summit of a near-by hill. There a lazarette, modelled after those in Europe in the Middle Ages, was organized. In the beginning it was simply a site on the hill, open to the wild beasts of the jungle or to any person who cared to enter. It had no hospital, no houses, no church and no school for the children. It was simply a collection of poorly constructed huts to which the cases found in the city were driven in order to rid the populace of their presence.

However, a priest, Peter Claver by name, who also did much for the slaves of that time, became interested in the unfortunates who formed this little colony and decided to dedicate his life to the bettering of their physical and spiritual condition. He did a great work and deserves to rank with Father Damien, of Molokai, although his performance was much less spectacular and has the added disadvantage of being shrouded in the mists of history.

TYPES OF THE DISEASE IN SOUTH AMERICA.

Physicians who specialize in the treatment of leprosy in the various countries of the continent state that all types of the disease are to be found. The most common are: (a) the pure skin type, going on to the formation of nodular

thickening, (b) the pure nerve type, with thickening of nerve trunks and affection of the dermal nerve endings, producing anesthesia and muscular atrophy, and (c) the mixed type, with symptoms belonging to the other two. The mixed type is the most prevalent.

PREVALENCE OF THE DISEASE IN SOUTH AMERICA.

While this paper deals especially with the problem of leprosy in South America, it should be stated, before entering on a detailed study of the situation in the various countries, that the disease abounds, also, in the islands that rim the continent to the north, in the Caribbean Sea, and in Central America and Mexico. There is also a comparatively small number of cases in the United States of America, probably about 1,000 in all, most of whom have entered from surrounding countries. But, in that country, the disease tends to disappear, or is maintained only by infiltration from neighbouring countries.

The ten Republics and the three foreign colonies that occupy the territory of South America will now be mentioned separately and a few facts given in regard to the extent of the disease in each, beginning with those that lie along the Spanish Main.

Venezuela, with a population of about 3,000,000 has several thousand leprous inhabitants, of which number only a few hundred are cared for in some degree in the two official leprosaria. One of these institutions is just outside La Guayra, which is the port for Caracas, and the other is inland near Maracaibo. The writer found very little interest in the disease among the physicians of Venezuela and the colony which he visited presented a most dismal aspect. Evidently, little or no attempt is made to treat the complaint, there is no obligatory segregation, and the patients seemed resigned to death and their final transfer to the large cemetery, near which one had to pass in order to reach the leprosarium.

Colombia, whose population reaches almost 8,000,000, has a very large number of cases of leprosy, the reported number varying according to the nationality of the physician who makes the report. National dermatologists state that there are only 4,000 to 5,000, although their own statistics locate over 4,000 in the leprosaria, while foreigners have declared that the total number of lepers must reach at least 30,000. Probably the latter number is more nearly exact, although no reliable statistics have been given.



Showing some of the Children now in the Pirapitinguy Government Colony, Sao Paulo, Brazil. 1,500 will ultimately be accommodated here.



Paraguayan lepers in old quarters at Asuncion. Visitors in dark coats, (left to right) Dr. W. E. Browning, a Paraguayan doctor and Dr. John N. Hay.

By kind permission of the Mission to Lepers.



Modern buildings
in the cottage
style line this
street in the new
section of the
Pirapitinguy
Colony, Brazil.



Site of new Farm Camp, replacing crowded quarters in
the City of Asuncion.

Women's Ward
in Curupaity,
one of Brazil's
Leprosaria.



There are three leprosaria in the country. One of them is located in the valley of the Tocaïma river near Bogotá, the capital, and has about 3,000 inmates. A second is near a place called Santander del Sur, on the right bank of the Magdalena river, and reports about 1,000 patients; while the third, called Cano de Loro, is on an island in the bay of Cartagena, with about 200.

Considerable interest in the disease is manifested by the physicians of the country, and the Government provides for the care of the sufferers who care to go to the colonies. But, again, segregation is not enforced and it is not unusual to meet cases on the country roads or in the streets of the cities. One gets the impression, in Colombia as elsewhere, that the physician is glad to have a chance to study the disease professionally, but that he has little or no interest in the recovery of the patient. It would be very costly to provide chaulmoogra oil for so many patients, and the colonies, located so far from the urban centres, offer little attraction to the average physician. The colonies of Colombia appear to be—as was the case of the first one established in Cartagena—merely centres to which the sufferers may go or are driven, where they are cared for to some extent, but receive very little expert attention and treatment.

Ecuador, which lies along the west coast of the continent, with a population of about 2,000,000, has many cases of leprosy, possibly several thousand, but no statistics are available. There is one small leprosarium near Quito, the capital, situated almost on the equator, which is used principally as an experimental station for the medical students of the university, who are supposed to visit it once a year for the purpose of studying the disease. Another is located near Cuenca, a city of 40,000 inhabitants. This appears to be merely a tract of country to which the cases are driven when the disease has so disfigured them that they cannot be allowed to walk the streets of the city, and there is no statement available of medical assistance or other care given them.

Peru and *Bolivia* do not consider leprosy one of their major problems, inasmuch as those suffering from the disease, whose number is unknown, are generally to be found in the warmer regions, in the basin of the Amazon, and, thus, far from the centres of population. Probably the disease has crept up the slopes of the Cordillera de los Andes from the plains of Brazil, where, as we shall see, it is exceedingly prevalent. It is known that leprosy generally follows the

great river systems, and this is probably another proof of this accepted fact.

Chile alone, of all the countries of South America, is free from leprosy on its mainland. There is a small colony on Easter Island, which belongs to Chile, a thousand miles out in the Pacific, but it is only occasionally that a case is found in the country itself, and care is taken that the disease does not spread. This is due to the fact that Chile is shut off, on the north, by a great desert, through which lepers could not travel; on the east by the high Andes, so that they cannot cross from Argentina; and on the west rolls the wide Pacific. The cold lands to the south, around Cape Horn, make the presence of leprosy impossible. Moreover, the sanitary authorities of the nation are very careful in their revision of all incoming passengers by train or steamer, and it would be difficult to pass their minute inspection. An occasional case of elephantiasis may be found and although this is not generally classed as true leprosy, yet the sufferer is segregated and cared for by the sanitary authorities until his death.

Argentina, whose population is around 12,000,000, has a large and constantly increasing number of cases of leprosy, but it is not possible to secure an exact census. Some national writers put the number as high as 10,000, others declare that it does not exceed 4,000, while a recent publication states that, according to the Ministry of Foreign Affairs, "a census reveals that there are in the country 2,500 leprous persons, of whom only 250 are cared for in corresponding institutions". Undoubtedly the former figure is altogether too low, and the latter is too high. There is but one leprosarium in the country, and that is a ward in one of the hospitals for contagious diseases in Buenos Aires. At the close of 1934 there were in this ward, by actual count, 110 men and 48 women.

The disease is especially prevalent in the provinces that border the Parana river—Corrientes, Entre Rios and Santa Fé—but there are also many sufferers in Chaco, Misiones, and Formosa, and no inconsiderable number in Buenos Aires, in addition to those in the ward of the hospital cited. An expert in the treatment of this disease who visited Buenos Aires some years ago, declared that the group cared for in the ward referred to constituted one of the most saddening sights he had seen in all the world. Men and women, in separate connected buildings, are crowded into a

small space with no entertainment or employment which would tax their ingenuity or free their minds from their condition. Argentina, so far advanced in all other matters that pertain to social legislation, has been slow to recognize the peril to her future in the presence of so many cases among her rapidly increasing population. She has done exceedingly little in the prophylaxis of the disease, and but few physicians interest themselves in its therapeutics.

A few years ago plans were drawn for a magnificent building to be erected on an island in the Parana river, in the far interior of the country. This building was actually erected, but, on account of strong protests from people round about, was, in the end, dedicated to other purposes. The plan, now, it is said, is that each province should take care of its own lepers, but no attempt seems to be made in this direction. Meanwhile, the disease spreads with alarming rapidity and is quickly becoming a major menace to the public health.

As a contrast to the apathy of public officials it should be said that a large number of ladies, representing the highest social circles, formed, about five years ago, a society for combatting the disease, known as the *Patronato de Leprosos*. A considerable sum of money has been collected by personal and public contribution, and the fact that ladies of this class of society are interested in their unfortunate fellow citizens is encouraging and makes one hope that in the future the Government itself may be spurred into action.

Uruguay, the smallest of the South American Republics, which lies just across the River Plate from the great province of Buenos Aires, Argentina, has, in a population of about 1,500,000, more than 500 cases of leprosy, according to the most recent computation available. Formerly, about 25 were cared for in two tumbled-down huts in the grounds of one of the hospitals in Montevideo. Due to insistent urging, in which the medical students finally joined, a new and sufficiently commodious ward has been erected, in which both men and women, in separate departments, are now given light occupation and are properly looked after. About thirty men and ten women are thus cared for at the present time.

Paraguay, the Mesopotamia of South America, whose population is estimated at 800,000, has not less than 4,000 cases of leprosy and the number may reach 10,000. It is said that in the interior, but little visited by foreigners, there are villages in which almost everyone is affected with leprosy.

Fortunately this brave little country, which defended

itself against the attacks of a much more powerful neighbour, giving to that defence its total man-power and draining its financial resources, has awakened to the peril that lurks in the presence of so many lepers among its people and, in the midst of so many other serious pre-occupations, is taking steps to curb the evil.

A Presidential Decree has recently set apart a beautiful tract of land, of about 2,500 acres in extent, in the interior of the country, which is fast being developed as a model colony. The more than 100 sufferers from the disease who had been crowded into filthy quarters in the city of Asuncion have now been transported to this colony; new buildings are rapidly going up, and it will not be long before a very large number of cases will be gathered together under its auspices. The colony is under the direct supervision of an experienced European-trained Christian physician, who works under the counsel of a small committee in Asuncion. This committee is active in securing funds for the bettering of the conditions under which the inmates are obliged to live, and also in maintaining contact with officials of the Government.

In a short time this colony should develop into a model institution of its kind, thus serving not only Paraguay but all this part of South America. Due to help given by the American Mission to Lepers and friends resident in Buenos Aires, a number of milk cows, mules for heavy work on the farm, tools, fowls of different kinds, and many other useful articles and special equipment have been provided, and the patients are happy and improved in condition.

Brazil, the only country of Portuguese speech in South America, with a population of almost 45,000,000, in an area greater than that of the United States of America, has more cases of leprosy than any other country in the Western Hemisphere. According to the latest official estimates available—and they are but estimates—as quoted by the President of the Brazilian Mission to Lepers, there are not less than 50,000 cases in Brazil.

In some States, the average of positive cases is more than 4 per 1,000, which is unusually high. Moreover, the official census includes only those who have presented themselves for treatment, or who, in some way, have become known to the medical fraternity, and the popular estimate, made by those in a position to know, would greatly increase the total. Some declare that there are 75,000, and others go still higher. Physicians who specialize in the treatment of the disease

have declared that their country might well be re-named "Leperland," so numerous are the cases that have come under their personal observation.

But, if Brazil has more of these sufferers than any other country in South America, it has also done and is doing more than any other to combat the disease and prevent its further spread. There are many leprosaria in the various states, and the medical fraternity is alive to its responsibilities. The State Boards of Health, the Federal Board of Health, and other official groups are interested and active. There is a "Brazilian Mission to Lepers," which, with other private organisations is doing its part to prevent further spread of the disease, and, at the same time, care for those now afflicted.

GENERAL CONCLUSIONS.

Leprosy is widespread throughout the continent of South America, and is fast becoming a menace to public health, Chile being the only Republic in which no cases are found.

Because of the lack of exact statistics it is not possible to make a definite statement with regard to the total number of sufferers in the continent. One official organization, in a position to secure exact information, after a study of the situation, announced that there are 300,000. Others would reduce the number to 50,000. The writer believes that 100,000 would be as nearly exact as it is possible to determine.

A few countries pride themselves on laws that make segregation obligatory, and others have none. In no case is such a law enforced. Physicians, as a general rule, do not rank leprosy as a major menace. Consequently, but few specialize in its treatment or advocate its prophylaxis. All types of the disease exist, the mixed being most common.

In a few cases, as in Paraguay, the national government is awakening to its responsibilities and is dictating measures calculated to care for those who are now leprous and prevent the spread of the disease.

For some time to come, help from outside, such as is given by the American Mission to Lepers, will be needed to stimulate local interest. Physicians and governments are occasionally interested in the disease, but there is much need of help for those who have contracted leprosy, in the bettering of conditions under which they live and in the introduction of modern methods in the promotion of colonies.