## REVIEWS

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Estudio epidemiologico y clinico de la endemia de lepra en la Guinea espanola. (An Epidemiological and Clinical Study of the Endemic Disease of leprosy in Spanish Guinea.) 113 pp. 15 graphs (one coloured on pl.) and 105 figs. on 32 pls., 1954. Madrid: Instituto de Estudios Africanos, Consejo Superior de Investgaciones Científicas. (60 pesetas.)

This small colony, situated in the Gulf of Guinea, consists of two islands, Fernando Po and Annobon, and a district on the African mainland 26,000 square kilometres in area. The population of Fernanda Po is 14,735, that of Annobon 1,396, and that of the mainland 129,039. The leprosy rate is higher in the continental area than in the islands, calculated during the last 15 years at about 4,621 cases, and varying in different districts from 71.1 to 2.9 per thousand. The incidence is highest in the interior !and especially in the north-east, indicating that infection originally spread with the Bantu invaders from that direction. In the islands the population is much denser and partly urbanised, and the incidence of leprosy is much less.

Under "Incidence in Relation to the Clinical Form," the cause of the greater incidence on the mainland as compared to that in Annobon is discussed. In the former the relation of tuberculoid to lepromatous types is 5.7 to 1; in the latter it is 1.8 to 1, that is, on the mainland the proportion of tuberculoid cases is 3.1 times as great. On the other hand, on the mainland the general incidence is 35 per thousand and only 7.8 per thousand in Annobon. The larger proportion of resistant form cases on the mainland is easily explained by the fact that the disease has been there for a much longer time. But the higher total incidence on the mainland is more difficult to explain on the supposition that leprosy infection goes on producing an increasing resistance to the disease.

The author explains the phenomenon by concluding that the lepromin reaction indicates sensitisation to Myco. leprae, and only indirectly a degree of immunity. Hypersensitivity does not necessarily imply high immunity. Lack of sensitivity (anergy) does not indicate complete lack of immunity in all cases. In Spanish Guinea the population is strongly sensitised by exposure to Myco. leprae (Ioo per cent); yet the high incidence appears to indicate a low index of immunity. To explain the want of relationship between the high incidence and the comparatively small number of sources of infection (open lepromatous cases) it is necessary to suppose that there is hypersensitivity which increases liability to infection, and at the same time determines a great predominance of hyperergic forms (tuberculoid and intermediate).

Of the extraneous factors influencing the spread and control of leprosy the most important are considered to be density of population and the arrival of people of a more civilised race. It is found, as it has also been found elsewhere, that though leprosy is less common in the more sanitary conditions of an urbanised area, in spite of the denser population, yet in rural areas where the population is dense the incidence of leprosy is particularly high. The fact that the advent of a higher civilisation lowers the incidence of leprosy is explained by the better sanitation which results, and possibly by the spread of tuberculosis which often accompanies the white races, the latter infection bringing about a degree of resistance to leprosy.

Regarding the examination of contacts, generally considered an important part of control methods, the author says that promiscuity is so rife, the people wander about so much, and divorce is so common that it would be necessary to consider every member of the territory as a contact, or at least all those living in the mainland territory. The mortality is not dissimilar from that of the general population, which shows that leprosy is not a killing disease.

The introduction of sulphone treatment had a phenomenal result: instead of avoiding the doctors as before, there was a "veritable avalanche" of patients coming from every corner of the colony, and 1,638 new patients were registered voluntarily within a year. In the campaign against leprosy a new standing order has been issued, according to which everyone, of whatever race, has to have a passport with a special visa stating that he is not suffering from leprosy.

Anyone suspected of having leprosy can, if it is considered necessary, be kept under observation for a period of up to five years. According to the form and condition of the patient he can be kept under observation without or with treatment, but if the disease is open and active he must be isolated.

This brochure is illustrated with numerous photographs and a number of charts and diagrams.

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(Abstracted in Tropical Diseases Bulletin.)