BOOK REVIEW

Epidemiologisch Onderzoek naar de Beteekenis van de Duur en de Aard van het Contact met Lepralijders. [Epidemiological Investigation into the Significance of the Duration and Nature of Contact with Leprosy Patients.] By R. BOENJAMIN. Thesis for the Doctorate in Medicine, University of Indonesia, 1949, 96 pp. [Summary, conclusions and tables in English.]

Five hundred unselected leprosy households in Djakarta city were used as material for a study of the significance of the duration and nature of contact. In addition, and as a control, an investigation of leprosy transfer was made in Tanah Abang, a district of Djakarta, where 80% of the 2,500 inhabitants were examined. With regard to terminology, by "household" is meant the composition of a family at the time of study, including relatives and other housemates. Distinction is made between "first" cases and "new" cases which developed later. As for the nature of the contact, distinction is made between (1) contact inside the household and (2) that outside the household, and the latter is subdivided into (*a*) "house contact," meaning mutual visits to houses or other premises, such as a bathhouse, well or lavatory, and (*b*) "village (campong) contact," meaning contact as at school, on playgrounds, and in other public places. Length of contact signifies the period between the beginning of the contact and the appearance of symptoms.

The total number of persons in the 500 households was 2,897, comprising 1,055 children up to 14 years of age and 934 males and 908 females beyond that age. The number of "first" cases seen was 476; 3 of the original 500 had left for other places and 21 had died. The number of housemates of the first cases (deducting from the total of 2,897 the 476 actual cases then present) was 2,421 of whom 983 were children, 643 older males, and 705 older females. In 253 of the households the first case was of the "neural" type, in the other 247 households it was the lepromatous type. The data of these two groups of households are analyzed separately.

First group: The number of housemates in the 253 households with neural first cases totaled 1,197. Among them 28 new cases were found (2.4%). Contact with other leprous persons outside the household was determined for 479 of this group; 23 of the new cases (4.8%) were found among these persons. The other 718 housemates insisted that they had had no definite contact of that kind; among them there were only 5 (0.7%) who showed symptoms.

Second group: The number of housemates in the 274 households in which the first case was lepromatous totalled 1,224. Among them there were 108 new cases (9.6%), four times the rate for the first group. Contact with other leprous persons outside the household was determined for 371 of these individuals, among these were 42 new cases (11.3%). For the other 853 housemates contact outside the household was not determined; among them there were 66 individuals with symptoms of leprosy (7.7%).

From these data two conclusions are drawn: (1) Transfer of leprosy as a result of contact in the household with persons suffering from the neural type has not been proved; the observed new cases found in those

households are ascribed to contact of the housemate with leprous persons outside the household. (2) Most new cases of leprosy in households of sufferers from the lepromatous type can in principle be ascribed to contact of the housemates with the infected members of the household; in this case the influence of contact with leprous persons outside the family is of minor significance.

In the investigation of factors which influence the transfer of leprosy inside the leprous household, only housemates for whom contact with cases outside the household has not been determined were taken into account. In view of the conclusions just stated, the study was further restricted to the 247 households with lepromatous first cases. Two important factors of transmission are:

(1) Bed contact. In the households with lepromatous first cases there were 67 housemates with bed contact, aged 14 years or less. Of them, 31 have symptoms, or 46%. There were 50 older housemates with bed contact, of whom only 3 have leprosy, or 6.0%. The difference between these two percentages is statistically significant.

The housemates married to first cases and who had regular bed contact numbered 40. Of them, one is infected with leprosy, which is 2.5%.

(2) Family intercourse without bed contact. The number of housemates of this category aged 14 years or less is 415, of whom 25 have leprosy, or 6.0%. The older persons of this category number 321, of whom 7 have leprosy, or 2%. The difference by age is not significant.

The data of duration of bed contact showed a sharp rise in the second year of contact from 1.5% to 17%, after which it gradually fell. The average length of contact, including incubation, after bed contact started for the child group was 3.6 ± 0.3 years, and for family intercourse without bed contact for all ages was 7.2 ± 0.5 years. The difference is 3.6 ± 0.58, which is significant. In other words, the short length of the period of contact and incubation after bed contact is, in comparison with the length of the period after family intercourse without bed contact, a typical phenomenon. It is also pointed out that infection through bed contact at an early age is so easily effected as to surpass by far that of all other forms of intercourse between leprous and nonleprous inmates of the infected household.

The study of the source of infection in an unselected group of leprous persons in the city of Djakarta [1] revealed that of the 612 cases involved 420, or 68.7%, had had contact with individuals with the lepromatous type of the disease. Of the 420 with such contacts, 141 had had contact with leprosy infected housemates, 322 had had house contact with infected neighbors, relatives or friends, and 108 had had more or less regular contact of the campong kind. This makes a total of 571 sources of contact with sufferers from lepromatous leprosy.

The data have been analyzed further, as follows: In the case of the 141 individuals with contact with infected housemates, that contact has been assumed as the cause of the infection (i.e., family infection). This is 33%, or $22.9 \pm 1.70\%$, of the total group of 612 cases. (*b*) Infection by

[1] This apparently refers to the survey of the Tanah Abang district, mentioned in the first paragraph of this review.—EDITOR.

house contact with infected neighbors, relatives and others has been established as the most acceptable source in 35 cases. This gives a frequency of 35.5±1.93%, which is greater than that of household infections. (*c*) Campong contact has been established as the cause of the infection in 63 cases, which is 10.3±1.21%. From this it is concluded that, at most, one-fourth of the leprosy-infected population of Djakarta has been infected by housemates; the other cases have been caused by less intimate forms of contact.—[From material supplied by the author.]

Historia de las Dermatosis Africanas en el Nuevo Mundo. By C. F. GUILLOT. El Ateneo, Buenos Aires, 1950, 107 pp.

The author, a dermatologist belonging to the school of Professor Quiroga and technical secretary of dermatology of the Ministry of Public Health, presents in six chapters a study of a subject which hitherto has been little dealt with, that of "the modifications which the great human mass, imported from Africa by forced migration, has imprinted upon pathology and epidemiology in the new continent. After describing as a pathological osmosis the phenomenon by means of which each race, historically and phylogenetically distinct, transmits its peculiar diseases to others, he discusses the origin of the Negro people and the treatment of the slaves. The study of dermatoses in the Negroes of America is divided into four chapters: those introduced by the Africans; those acquired by them in the new continent; cosmopolitan affections including syphilis, smallpox and leprosy; and finally those proper of the state of slavery consequent on abuse, filthiness, promiscuity, undernourishment, etc.

The author has the gift of making interesting a topic which is gloomy and, to us, of minor concern. This can be said because in our midst the Negro is not an important element, and less so his skin diseases. The subject is unpleasant because the afflictions of slavery are evident throughout the entire work, especially in the last chapter with its tone of tragedy which, although evidently not intended by the author, nevertheless flows forth naturally and vividly because of its being wrapped up in deep human sympathy.

There is revealed in this little book a solid and deep erudition, for it successfully unites the most diversified disciplines: history, sociology, anthropology, medicine, hagiography, and others. They are so beautifully welded together that their diversity can only be perceived from the abundant bibliography given at the end of each chapter. There appears terms which are seldom used in our idiom, but they read naturally and pleasantly since they are not "rediscovered" but rather are carefully selected to express clearly and accurately the ideas which are brought forth. The book is well illustrated, and is a sober and elegant presentation.

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