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EDITORIALS

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EXAMINATION OF CONTACTS IN THE CONTROL OF LEPROSY

Since Hansen discovered *Mycobacterium leprae* 80 years ago and thus established the fact of the communicability of leprosy, isolation of the patient, or more particularly segregation in an institution, has been considered by most authorities to be the ideal method of control. The reasoning seems convincing: leprosy is a communicable disease; by isolating the infectious patient his association with the outside is prevented; the disease will cease to be communicated, and will gradually die out.

But practice has shown that this logic is at fault. Among others, there are three main factors which defeat institutional control: the insidious nature of the onset of leprosy; the psychological, social and economic complications which the presence of leprosy creates; and the expense of maintaining case-finding activities and segregation institutions on an adequate scale.

The onset of lepromatous leprosy is insidious. The experience of many experienced workers is that the average patient suffering from this, the infectious form of the disease, has already reached a fairly advanced stage when he comes for diagnosis and treatment, and must already have been a potential danger to his associates for some years. In these cases, in spite of the large numbers of bacilli infiltrating the skin and mucous membranes, the tissue reaction is at first so mild that

the lesions present may be extensive and yet remain unrecognized. Also, constitutional symptoms are absent, or so slight that they are not noticed or are attributed to some other cause. Recognition often waits till an allergic reaction is superimposed, causing the lesions already present suddenly to flare up. The difficulty in early recognition exists most in patients with dark skin, as the pigment masks the red markings which are more easily recognized in lighter-colored skins.

Another factor which defeats the institutional control of leprosy is social ostracism, which is often extended to the family as well as to the patient. Fear of this leads to concealment, and still further widens the gap between the beginning of infectiousness and the time when the disease can no longer be hid and the doctor's help is sought. If the lepromatous form of leprosy were conspicuous and easily recognizable from the beginning, if it were even as conspicuous in the early stage as is the milder tuberculoid form, then possibly leprosy would never have become a widely spread disease.

The third factor which makes control by institutional internment impossible, at least in poorer countries, is the expense. Institutions are expensive to build and maintain. It is calculated that there are over a million sufferers from leprosy in India, of whom one in every four or five is lepromatous and consequently a potential spreader of infection. There are, therefore, at least 200,000 infectious cases, and for these there is room in institutions for only some 10,000; so that some 90 per cent must be dealt with, if at all, outside of leprosy institutions. Also to be considered is the fact that the patient is often the bread-winner of the family, and he remains at his work as long as he can lest his family starve.

While not depreciating the value of institutional treatment, dependence on it alone for the control of leprosy is like trying to empty the ocean with a bucket. Another method of control, one which is less expensive and can deal with larger numbers, is the dispensary, where the patient can attend once or twice a week for treatment. Many patients are benefited by dispensary treatment, especially since the introduction of the sulfones. There are, however, three strong objections to this method. The dangerous gap between first infectiousness and the time of first attendance at the dispensary is not filled. While under treatment the patients continue to infect their families and other associates; indeed, they are liable to spread the disease more widely during their often long journeys to

and from the dispensary, travelling in public vehicles and often spending a night or two with friends or with an unsuspecting householder. Also, climatic, social and economic conditions tend to make attendance irregular and therefore ineffective.

There is a third way of control which may be termed the "contact examination method." This does not exclude residential institutions where they are available, for there are many advanced cases, and others with acute complications, who require hospital treatment at least for a time. Nor does it exclude the dispensary; but it transforms it from being an end in itself, with the sole purpose of giving treatment, into a clinic with many activities directed towards further ends. It becomes a center from which antileprosy work is extended into the surrounding district; but its sphere of operation is limited in area, so that the work is thorough and no attending patient has to travel more than a few miles. More important, it seeks to bridge the infective gap by examination, with the consent of all concerned, of all contacts of known cases, making early diagnoses and bringing under treatment as early as possible all cases found. But perhaps the most important aim of all is to win the confidence of the patient, his family and his associates, and to give practical instruction in the home on the nature of leprosy and simple measures that can be taken in daily life to minimize the danger of spreading the infection.

The contact examination method commends itself particularly for poor communities such as India. Institutions are expensive, but any village medical practitioner who has the right spirit and the necessary training can initiate the method in his own area with very little expense, and much of the work can be done by unpaid, part-time lay workers who have been trained for the purpose.

Attempts were made to start work along these lines in India more than 25 years ago, but met with very limited success at that time. Recently the Gandhi Memorial Leprosy Foundation, a branch of the Gandhi Smarak Nidhi (Gandhi Memorial Fund) has worked out a scheme for setting up sample centers of this nature in all of the Indian states, and for training doctors and social workers. Details of this scheme are given in abstracts of two memoranda by Dr. R. V. Wardekar, secretary of the Foundation, which appeared in the last issue of *THE JOURNAL* (pp. 91-93), and it is expected that an article by him on the practical working of the scheme will be presented in the near future.

A plan of this general kind, adapted to the nature of the people and the country, has been used with much success in some of the provinces of Eastern Nigeria. In that region an important feature of the scheme is the voluntary segregation village. [See the article on Leprosy Control in Nigeria, by Ronald R. Bland, *THE JOURNAL* **20** (1952) 175-184.]

At the recent conference on leprosy arranged by the World Health Organization in Rio de Janeiro, the subject which occupied most interest and time was leprosy control. It was recognized by all present that institutional segregation alone does not control leprosy, and the method approved was along lines similar to those here recommended.

—E. MUIR