EDITORIALS

The article by Dr. J. A. K. Brown, abstracted in this issue (p. 87), raises a point of great interest and importance: can patients with the tuberculoid type of leprosy spread the disease? He writes: "There are parishes of 1,000 people dispersed over 20 square miles without a single lepromatous case, and tuberculoid cases occur five miles or more from the nearest lepromatous patient. It would require the greatest mobility and popularity on the part of the lepromatous subject if all the leprosy in the country could be attributed to them. Open cases could act as the only source of infection in Uganda on the assumption of carriers, an assumption less easy than that tuberculoid cases are infectious."

Put so, this conclusion seems reasonable enough. But what is meant by "a carrier" when applied to leprosy? An "incubatory carrier" is defined as "an individual who is in the incubation period of an infectious disease and will soon manifest the symptoms." Do such cases occur in leprosy? The description of a patient encountered some years ago may help to answer this question. This patient appeared at the Skin Department of the School of Tropical Medicine, Calcutta, where he was treated for three months for seborrhoic dermatitis. It was then noticed that there was a certain amount of anaesthesia of the lower limbs, and he was sent to the Leprosy Department as a possible case of neural leprosy. On inspection the patient appeared strong and healthy, and there was nothing to suggest leprosy, but there was a mild degree of anaesthesia of the ankles. Routine bacteriological examination of skin smears, however, showed massive infection with lepra bacilli extending over almost the whole skin surface. Even epithelial scrapings showed masses of bacilli on the surface of the skin. The skin of this patient was very dark, which probably partly accounted for the absence of visible signs. After a few weeks nodules began to appear, after which the diagnosis at sight was easy, but this patient must have been a potent unsuspected spreader of infection for years before he was first admitted for diagnosis and treatment. This was not an exceptional case, the writer has since then seen many like him, though few of them have shown such massive infection.

Should such a patient be called "a carrier"? This depends on the meaning of the word "incubation," which the dictionary defines as "the period between the implanting of an infectious disease and its manifestation." But obviously this definition is inapplicable to lepromatous leprosy as the manifestation required a microscopic examination. "Concealed" leprosy is a more

suitable term, and the existence of this condition has not been sufficiently recognised. There is reason to believe that if lepromatous leprosy became *manifest* as soon as it becomes *infectious*, the solution of the leprosy problem would be rendered much simpler. The only way to close this gap, which often extends for three or more years, is careful and laborious following up of diagnosed patients to their homes, and bacteriological examination of contacts.

Another, though probably much less frequent, source of concealed infection is the border-line form of leprosy, which may closely resemble and be mistaken for the tuberculoid, while still showing many bacilli on examination.

In the writer's own experience in Calcutta a high percentage of tuberculoid type patients denied at first all knowledge of contact with the disease. It was found, however, that careful and prolonged investigation carried on over a considerable time was able in the end to trace a clear connection with the disease in the majority of such cases.

Reacting tuberculoid leprosy may show large numbers of bacilli in the skin, but, apart from this, before accepting the hypothesis that ordinary tuberculoid leprosy is responsible for spreading infection, even to specially susceptible people, it would be well to prosecute a careful follow-up of contacts as mentioned above.

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Much literature has gathered round the controversial subject of classifying leprosy, and perhaps we have sometimes lost sight of the wood because of the trees. It may be well to ask "What are the reasons for wanting a classification?" Without keeping this question and its answers clearly in mind there is a danger of seeking classification just for its own sake, and that may create a vicious circle which leads nowhere.

I suggest that there should be five clear objectives in mind when we set about dividing cases:

(1) *Control of the spread of infection.* We must divide the infectious from the non-infectious, and divide the infectious according to their degree of infectiousness. In assessing this the important points are the number of bacilli and the degree to which they are likely to be shed from ulcers, etc. On the principle that "prevention is better than cure," surely this division should have the first consideration.

(2) *Facilitate treatment.* The standard treatment of leprosy is now the sulphones, and particularly the simplest form of DDS, and this treatment is appropriate for all forms and stages of the

disease. But patients vary in the dose they can tolerate, and particularly in the initial amount and the rate at which it can be increased. A few suffer from anaemia, anorexia and other complications, and these should perhaps be corrected before specific treatment is begun. Another small number appear, at least at first, to be intolerant of sulphones, and may with advantage be changed for a time to a course of thiosemicarbazone.

A special category is also required for those who have developed or are in danger of developing secondary neural lesions of the limbs or face. The future of many patients depends on appropriate early attention to these conditions.

(3) In a dreaded disease like leprosy much depends on a reliable *prognosis*, and patients should be divided according to their chance of recovery, the time required and the possibility of permanent sequelae. Here the clinical phenomena, the lepromin reaction, and the duration and advance of the lesions are the main determining factors.

(4) Patients may also be grouped according to certain *extraneous elements* apart altogether from the disease itself, but which have an important bearing on the danger of spreading the disease, on the effectiveness of treatment and on the chance of recovery. Among these are the patients' social and economic circumstances, whether they allow of sufficient nourishment, and whether there is freedom from anxiety about the family in the case of the breadwinner. There are also the character, mental attitude and intellectual capacity of the patient, upon all of which depend so much his whole-hearted co-operation, so essential during the prolonged period of treatment.

(5) Lastly, there is the division of leprosy from the *research* point of view. This may to a certain extent include all the above divisions, but also takes cognisance of pathological, biochemical, serological and other matters which, though important for the increase of our knowledge of leprosy, are of less direct significance in dealing with the individual patient.

Whether leprologists agree to be content with the Madrid Congress classification, or decide to amend it further, the above practical divisions should not be lost sight of. Particularly they should be kept in view in assessing the value of new drugs in the treatment of leprosy.