## SIGNIFICANCE OF LEPROMIN POSITIVITY

TO THE EDITOR:

In THE JOURNAL, 24 (1956) 475, Dr. Guillermo Basombrio reproduced the following paragraph from my paper read before the International Congress for the Defence and Rehabilitation of the "Leper" (Vol. 1, p. 246):

"It is also necessary to state that from the strictly public health point of view the immunological condition of the children demonstrable by the Mitsuda reaction has no value."

Then he puts the following question:

"Has it been proved that the immunological condition of children who give a positive Mitsuda reaction has no value?"

My reply to this question is:

1. I fully recognize the value of the Mitsuda reaction, as in continuation of the part of the paragraph quoted above I said (and this was in Basombrio's quotation):

"This matter [is] of extraordinary theoretical and scientific importance," [although it] "cannot serve at the present time to establish a control measure."

2. There exist areas of high endemicity of leprosy, for example Spanish Guinea, where 100 per cent of the children are Mitsuda positive, this condition coinciding with one of the highest indices of prevalence (23.09 per thousand), as reported by Martinez Dominguez (Memorias del VI Congreso Internacional de Leprologia, Madrid, 1953, p. 1104).

3. The working conditions in mass campaigns do not permit a systematic study of the Mitsuda reaction among the sick population due to lack of workers, time, or even Mitsuda antigen.

4. We cannot accept without exception the formula:

Mitsuda + = Hyperergy = Type T = mild form, with tendency to cure.

Mitsuda - = Anergy = Type L = serious form with progressive development.

All leprologists know cases of abortive evolution in Type L. I have personally described cases of that type with spontaneous recovery. On the Correspondence

other hand, progressive development in Type T cases does exist, in time effecting the general state.

Basombrio mentioned children reported by Dr. Lauro de Souza Lima who had been lepromin positive and had nevertheless developed lepromatous leprosy. Similar cases have been described by Martinez Dominguez.

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TO THE EDITOR:

The following opinions are offered in response to the question raised by Dr. Basombrio.

1. Sensitivity to lepromin due to the impregnation of the organism with the Hansen bacillus is regarded, with reason, as an index of a state of relative immunity against leprosy, which is reflected by the resistance of the tissues to the bacillary invasion.

Hence, a large proportion of individuals with benign leprosy react to lepromin, and the disease never evolves to the malign form as long as the patient remains sensitive to that antigen. However, this allergy to lepromin is not immutable. Leprologists who have had the opportunity of following cases for many years have seen, especially before the sulfone era, that this allergy may not only diminish in intensity but may even disappear completely. One cannot, then, in every allergic person, regard sensitivity to lepromin as a definitive test of relative immunity. It cannot be said, however, that the lepromin test has no value in the epidemiology of leprosy, since the great majority of individuals maintain their lepromin sensitivity for many years, and probably even for life.

2. According to my experience, untreated lepromatous patients are and remain negative to lepromin. Indeed, it may even be asked if the rare socalled lepromatous patients in whom sensitivity to lepromin appears during or after sulfone treatment were not in reality borderline patients.

3. I have observed in Indochina, during the chaulmoogra days, at least 20 cases (about 3%) of the indeterminate or tuberculoid forms which at the beginning were positive to lepromin, even strongly so, which became anergic and transformed to lepromatous. I also had the opportunity, in 1956 and 1957, to observe many such cases at the Rovisco Pais Hospital Colony, in Portugal.

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## -R. CHAUSSINAND

409