Relationship of C1q-Precipitins with Leprosy

TO THE EDITOR:

A high incidence of occurrence of C1q-precipitins has been described in the sera of leprosy patients. Moren and co-workers (Lancet **11** [1972] 572-573) found that 70% sera of lepromatous leprosy patients with active *erythema nodosum leprosum* (ENL), 33% of lepromatous leprosy patients without ENL and none of tuberculoid leprosy patients and normal subjects showed C1q precipitation reaction. Gelber and associates (Int. J. Lepr. **40** [1972] 455-456) observed that presence of C1q-precipitin was associated with ENL. Rojas-Espinosa and co-workers (Clin. Exp. Immunol. **12** [1972] 215-223) found a high incidence of C1q-reactivity in the sera of lepromatous leprosy patients and in only 1 of 35 sera of healthy controls. Two of nine sera of tuberculoid leprosy patients showed C1q-reactivity in their studies.

From our study no such relationship between lepromatous leprosy with ENL and C1q-reactivity could be established as tested by the method of Agnello and co-workers (Immunology **19** [1970] 909-919). Sera of 11 of 14 tuberculoid, 11 of 16 lepromatous and 7 of 11 normal subjects of African origin living in Kenya showed C1q-reactivity. On the other hand, 1 of 7 tuberculoid, 1 of 6 lepromatous (with ENL) and 1 of 12 lepromatous (without ENL) patients of West Indian origin living in the Netherlands showed positive C1q reaction. None of the 10 sera of normal Dutch individuals and 13 of normal West Indians tested gave precipitin lines against C1q. Sera of leprosy patients of Dutch and Kenyan origin and of normal Kenyans living in the Netherlands was not available to include in this study.

Possible explanation of the results of these studies remains speculative. The discrepancy between our results and those of other investigators may partly be explained in the differences in the selection of controls as we selected our control persons in the same area as that of the patients. Another explanation may be sought in the possible presence of other chronic infections such as worm infections without apparent clinical symptoms, in some geographical areas but not in others. Alternatively, some dietary factors might play a role.

It will not be inappropriate to make a passing comment on C1q precipitation method for detection of immune complexes. A positive reaction does not necessarily indicate the presence of immune complexes and negative results do not indicate their absence. The limitations of the sensitivity of this method are unknown. If the reaction is due to immune complexes, certain amounts of free antigen or antibody may inhibit the reaction. Caution must therefore be exercised in the interpretation of the presence or absence of C1q-precipitins. —[William R. Faber worked as a temporary staff member of the Medical Research Center, Nairobi, to carry out part of these studies.]

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