ABSTRACTS

REES, R. J. W. The Significance of the Lepromin Reaction in Man. *Progress in Allergy*, 1964, vol. viii, pp. 224–258 (88 refs.).

This article is a masterly and much-needed survey of the position of the lepromin reaction. After a useful introduction and general description of leprosy the author studies the lepromin test historically, and gives details of its preparation, and goes on to study the test in practice, with its early reaction in the human being, its late reaction, and the histology. The results of the lepromin reaction is next considered in patients with leprosy, in persons who are contacts with leprosy, and in persons who are not contacts. The author further analyses the test by describing the reactions to the different constituents of lepromin, namely the bacillary and tissue constituents, and the relationship of the lepromin test to skin tests with other mycobacteria, that is with tuberculin and other mycobacterial antigens, both in the general population and in patients with leprosy. The author finally considers lepromin reactions induced by repeated lepromin testing, the effect of BCG vaccination on the lepromin reaction, and the relationship between the lepromin reaction and immunity to leprosy.

Because *Myco. leprae* has not been cultured *in vitro* and there is still no definite evidence that the disease can be transmitted to experimental animals, many of the investigations on leprosy have to be carried out in man rather than animals. This applies in particular to the lepromin reaction, because animals cannot be infected with leprosy. Because the only source of *Myco. leprae* is from infected human tissue, any attempt to sensitize animals with these mycobacteria will be obscured by sensitization both to them and to human tissue antigen.

Lepromin as a dermal antigen has been compared to tuberculin. The antigens however are entirely different; whereas tuberculin is prepared from a culture filtrate of tubercle bacilli, lepromin is prepared from infected human tissue, which is the only available source of leprosy bacilli.

As regards the reaction to lepromin, there are two positive types seen in the skin: (1) the early reaction seen after one to two days which is essentially similar to the tuberculin reaction; (2) the late reaction which begins as a distinct nodule and reaches its maximum in the 3rd or 4th week. The cruder type of lepromin produces both early and late reactions, but when the more purified type of bacillary antigen is used the early reaction predominates. Both the bacillary and tissue component of the lepromin antigen plays a part in the dermal reaction. Normal skin antigens can elicit late reactions, though they are weaker in patients and the healthy who are lepromin positive. The lepromin reaction is positive in patients with the tuberculoid type of leprosy and negative in those with the more severe lepromatous type of the disease. It becomes clear that a positive lepromin reaction is not specific for leprosy, seeing that patients with lepromatous leprosy are negative to lepromin and even non-contacts in

countries where there is no leprosy can show positive response to lepromin. There is evidence of a strong association between the reactions to lepromin and tuberculin in healthy persons, and of cross-sensitization between the bacilli of leprosy and tuberculosis and BCG can convert to positive the reactions to both tuberculin and lepromin. Even though patients with lepromatous leprosy fail to react to lepromin, more than half of them react to tuberculin, as well as antigens prepared from many other species of mycobacteria. Therefore there seems to be a specific anergy to lepromin in patients with lepromatous type leprosy, which predetermined the chances of the healthy person developing that kind of leprosy when faced with infection by the leprosy bacillus. This is more probable than that the established infection determined the anergic state.

ROSANT, M. Essai de Thérapeutique Anti-Hansénienne Par L'Acétylsulfaméthoxypyridazine (Trial of Therapy of Leprosy by Acetylsulphamethoxypyridazine). *Bull. Soc. Path. Exot. 56*, 3, May-June 1963, pp. 320-327. 320 - 337

After finding that the drug caused considerable digestive tract disturbance, the author tried acetylsulphamethoxypyridazine at 2 gm. a week for six weeks then 4 gm. a week for six months in 12 leprosy patients in Guadeloupe. The drug caused marked bacteriological and clinical improvement in one major tuberculoid patient, two borderline, and nine lepromatous patients, and further work is called for in comparison with known anti-leprosy drugs.