

REVIEWS

La Lepro. Organ of the Japanese Leprosy Association, 28, 1 and 2, January-March, 1959.

This has many interesting original articles. M. Kamiya gives his *observations on psychiatric cases in Aisei-en National Leprosarium*. There were 50 such cases in the year ending April 1958. There were only three cases where leprosy and its sequelae were involved as psychogenic factors. The incidence of functional psychoses was 0.75%, and of organic psychoses was 0.58%, not differing much from the rates for the general Japanese population. There was no form of psychosis peculiar to leprosy, and no special relation between the type of leprosy and the psychosis found. Leprosy was recognised as psychogenic inducement in two cases of schizophrenia, and as cause of a schizophrenic reaction in one psychopathic personality, and as causative factors of several anxiety neuroses. The suicide rate at Aisei-en was 58 per 100,000, not greatly different from the general Japanese rate.

T. Sindo, M. Narita and eight other colleagues investigated *humoral antibodies* in the sera of 200 leprosy patients who were free of tuberculosis. In the passive haemagglutination test of Middlebrook-Dubos the positive rate was 80% as a whole, and the mean value of end titres was 1/33.2. In the Sindo-Middlebrook haemolytic test the positive rate was 81% and the mean value of end titres was 1/85.8. These rates were somewhat less in tuberculoid than in lepromatous leprosy with both the serological tests. The average pattern of the two-dimensional haemolytic test was less steep in leprosy than in tuberculosis. The tuberculin dermal reaction and the haemolytic test showed no correlation in this series of leprosy cases. The tuberculin-negative cases in the series showed a rather lower rate of positive haemolytic test than tuberculin-positive cases, though the mean value of haemolytic titre was higher.

K. Hayashi reports on *a method for calculation and enumeration of leprosy bacilli in various organs*. He sought a simple and precise method, which is important in judging of proliferation. He devised a method based on a proportional calculation between *E. coli* and *M. leprae*, or *M. lepraemurium*. He found that subcutaneous nodules of mice and rats contained 2×10^{10} – 4×10^{10} /g. bacilli. For human bacilli in human leprosy nodules it was 2×10^9 – 6×10^9 /g. In Mitsuda antigen he found a count of 2×10^8 /cc.

K. Hayashi also reports on *changes in the number of leprosy bacilli inoculated into various organs of mice*. He found that mice infected by pernasal instillation of a dose of approximately 34×10^4 bacilli developed no lesion detectable by smear for a period of seven months, but thereafter there was a sudden change to logarithmic proliferation of the bacilli. Bacilli inoculated into testes showed a logarithmic proliferation with a generation time of seven

to ten days. Murine leprosy bacilli inoculated into the brains of mice also showed a good growth, but not lethal to the animal. The growth curve of proliferation in the spleen was the same for intravenous inoculation as for direct inoculation into the spleen after laparotomy. K. Hayashi next reported on *the fate of leprosy and other acid-fast bacilli when inoculated into the testes of mice*. He found that heat-killed human leprosy bacilli became less in number after inoculation, but living bacilli lasted over 300 days without appreciable reduction in number. Heat-killed murine leprosy bacilli showed no decrease in numbers for over 100 days. Both living BCG and heat-killed tubercule bacilli H 37 RV gradually reduced in number. Reverse cultivation of the living BCG was positive as long as 90 days after inoculation. Non-pathogenic acid fast bacilli, whether heat-killed or living, showed a rapid reduction in number. Reverse cultivation of living bacilli was positive as long as 70 days.

Y. Kawaguchi reports on *the selection of mouse strains adequate for murine leprosy experiments*, and he has found value in first generation hybrids obtained by crossing two inbred strains. The male parental strains selected were C 57 BL/6, and the female parental strains ddY and ddD.

Leprología. Organ of the Argentine Society of Leprology, 3, 2, July-December, 1958, Casilla de Correos 2899, Buenos Aires.

The Editorial by M. M. Giménez develops the themes of decentralization and co-ordination in the *antileprosy campaign in the Argentine*. He points out that in a vast country it is wise to leave the execution of the plan to the local health authorities, with full collaboration with the central ones.

N. Olmos Castro, P. B. Arcuri, and colleagues, give three papers dealing with Total Proteic Leprolin. The first deals with its trial on 122 contacts, in whom they found that the previous intradermal injection of whole lepromin created hypersensitivity in a high proportion. It was impossible to distinguish between hypersensitivity acquired naturally and that provoked by other means. Their second paper deals with a comparative study of the hypersensitivity to Total Proteic Leprolin provoked by BCG and whole lepromin in healthy contacts, as regards duration. It persists longer in those who have been injected with whole lepromin than in those with BCG. In the latter also it fades more, and the percentage of the hypersensitive diminishes within the first seven months (whereas in those given whole lepromin the percentage tends to rise during the first year). In their third study they used 2 Total Proteic Leprolins, one obtained from human lepromatous and the other from human tuberculoid tissues. There were negative results from the latter. They think that the antigenic activity of the total proteic extracts

of lepromatous tissues is due to the bacillary protein contained in them, and not to the accompanying tissue proteins.

C. A. Consigli discusses the concept of the *Mitsuda Reaction as evidence of a state of resistance*. He thinks that the lipid fraction of the bacilli is very probably that which is responsible for the production of the Mitsuda reaction, and that this reaction originates in the states of resistance of the body, connected with various factors. We should continue to accept the good prognostic significance of a positive Mitsuda as a certain degree of resistance to *M. leprae* in patients, contacts, and those free of leprosy.

E. D. L. Jonquières studies the *toxicity of the sulphones* in lepromatous and tuberculoid leprosy. He concludes that only a few cases of anaemia, exfoliative dermatitis, and psychosis are genuinely sulphone toxicoses. Most of the blood, liver, and kidney lesions are already determined by the influence of the leprosy *per se*, and there are concealed insufficiencies which are elicited by the sulphones and/or by reactions of leprosy.

M. Bergel reports, with 11 illustrations, *on the use of Vitamin E in the treatment of leprosy*. To three lepromatous and one tuberculoid case he gave daily 800 mg. of Vitamin E, 160 mg. of INH, and 400 mg. of ascorbic acid, by mouth. He obtained favourable clinical and bacterioscopic results. He thinks there is a synergic action. The INH protects the Vitamin E from oxidation by metallic pro-oxidants and the ascorbic acid potentiates and prolongs its activity. There was no sign of intolerance and toxicity. Lepra reactions were absent during the period of treatment of six to eight months.

C. A. Consigli, R. Biagini and A. C. Vázquez report on the *use of an emulsion of human placental tissue in the treatment of leprosy, and the results in the cases with lepra reaction*. They think that the use of this extract Tisulin may be a valuable adjuvant therapy. They treated six cases of lepra reaction of varying intensity, also five lepromatous cases keeping on the sulphone therapy. There was complete regression of the reactional symptoms in most, and attenuation of them in the rest. There was a marked surge of improvement in the lepromatous cases also treated with sulphones. The placental extract was given as injections of 1 ml. twice weekly, rising to 3 or 5 ml. and slowly reducing to one injection every five days, or maintaining the higher dose for a while. There was no intolerance. Among the indications against the use of Tisulin is the presence of an acute febrile infectious disease, but lepra reaction caused no trouble. The patients showed an increase in appetite and body weight and feeling of wellbeing and there seemed to be a speeding up in the process of decline in the bacillary index. The reinforcing action of placental extract now needs a longer period of observation.