

REPORTS

Report from Brazil, kindly sent by DR. H. C. DE SOUZA-ARAÚJO.

The attempts to cultivate *Mycobacterium leprae* in Sao Paulo (Brazil) failed.

Dr. Orestes Diniz, Director, Serviço Nacional de Lepra, was officially invited to attend the demonstration in Sao Paulo of the culture of *M. leprae*. The meeting, which was put out on television and presided over by the Secretary of Health of the State, Dr. Fauze Carlos, took place at the Instituto Adolfo Lutz, on 10th November 1959.

Drs. Murilo P. de Azevedo, Paulo Rath de Sousa and Maria Pereira de Castro stated that they have cultivated *M. leprae* in tissue culture, using biopsy of a skin lesion of a woman suffering from mycosis fungoides associated with lepromatous leprosy. The communication was illustrated with colour slides of smears of the culture, showing cells parasitized by globi. A tube of the culture was shown.

In conclusion, the authors claimed to have cultivated *M. leprae* in human tissue *in vitro*, for the first time in the world.

A summary of the communication was published on 11th November, by the periodical O GLOBO of Rio de Janeiro, which because of the importance of the matter has been cabled all over the world.

On 12th December, 1959, the three above named technicians of the Department of Control of Leprosy of Sao Paulo came to Rio and spoke at the meeting of the Associação Brasileira de Leprologia, under the chairmanship of Dr. Orestes Diniz. Their speech may be summarised as follows:—

1. The tissue culture was made with a biopsy of skin lesion from a woman suffering from mycosis fungoides associated with lepromatous leprosy.

2. Until the 40th day, smears of the culture, stained by Ziehl-Neelsen method, showed many cells with globi of typical aspect.

3. From the 80th to 120th day, the acid-fast bacilli decreased in number progressively until disappearing in the culture, without leaving detritus and granulations, in contrast with the intense multiplication of the cells.

4. New fresh cells were not added to the culture, which was transplanted on to artificial media of the type used for mycobacteria, with negative result.

5. The authors said that they were not sure that the bacillus seen was really the *M. leprae*, which did not multiply in the culture.

In conclusion, the authors denied their statement made in Sao Paulo on 10th November, and said that they have the intention to repeat the experiment using tissue culture from another case of mycosis fungoides not associated with leprosy.

Rio de Janeiro, 21st December, 1959.

Teaching in Leprology

The Faculdade de Ciências Medicas (University of Rio de Janeiro) since April 1936 has given regular courses on leprology. Two courses were given in 1959, each of 40 theoretic and practical lectures, from March to June and from August to November, lectures being given by Professor H. C. de Souza-Araujo and his Assistants, Drs. Avelino Miguez Alonso and João Baptista Risi. The Faculty gave diplomas in leprology to 91 alumni of the 6th year of the medical course.

Spectacular Efficacy of Ciba 1906

E.B., a white man of 37 years, had his leprosy classified as tuberculoid in 1942 (Dr. H. Portugal), which progressed to lepromatous in 1945 (Dr. H. Portugal). From 1947 till 1959 he took, intravenously, about 15 litres of sulfones (6 kgs. DDS), mostly Promin. His treatment was interrupted on various occasions due to mild lepra reactions, but from May 5 1959 he has had a severe LR., in which his skin is covered by lepromata and plaques. Nasal mucus shows innumerable intracellular globi. From 5/5 till 11/8 he was subjected to 4 skin biopsies and the nasal secretion was collected for inoculation in murines.

From July 1st to Dec. 17th he took 720 tablets of Ciba 1906 (360 g.). In October his lepromas started softening. From November 7th to December 17th many smears of skin lesions and nasal mucosa were examined. After 44 years experience in the treatment of leprosy I never had reason to be too optimistic of his cure, but now I was surprised with the rapid amelioration of this patient, whose smears are showing mostly pale acid-fast bacilli, detritus, absence of granules, and mostly broken down globi in the mucus. If this case continues in such manner and be confirmed in other lepromatous cases for whom I prescribed the new medicine I will proclaim that Ciba 1906 is suitable for mass treatment. Unfortunately it is too expensive here (ten times more than Ulfasone). (The price has been reduced, and in England at present it is £3 per 1,000 tablets to hospitals. Editor.)

Leprosy Report, Western Australia; DR. W. S. DAVIDSON, Deputy Commissioner of Health, has kindly sent a report on the leprosy work there which is of great interest. It will appear in the 1958 Annual Report of the Commissioner of Public Health, and in the meantime permission has kindly been given for this summary of the Leprosy Report to appear in *Leprosy Review*.

Leprosy was introduced to Western Australia about the turn of the century, and is therefore a comparatively new disease among the aboriginal non-immune population. The picture of leprosy is there-

fore probably a truer one than in long-endemic countries. There appear to be at least three lepromatous cases for every one tuberculoid case. Neural involvement is an almost invariable feature of the lepromatous and proceeds step by step with the evolution of the disease to a degree of tissue destruction rarely seen in the tuberculoid cases there. Another feature of West Australian leprosy is its *lability*. Cases that have been regarded as tuberculoid have broken down after a number of years, and have become frankly lepromatous, with demonstrable acid-fast bacilli and a negative lepromin reaction. Under treatment the converse is also true, in that lepromatous cases have become lepromin positive parallel with a rapid clinical improvement. It has become natural therefore in Western Australia to regard leprosy classifications as applying only to the resistance being displayed to the infection at the time of examination. There is also in age incidence no suggestion that the disease is acquired in infancy, but there is a broad spread of susceptibility through age groups. Contacts who were of white race have developed the disease after apparently very brief or cursory contact. The number of white persons who have acquired leprosy in Australia is remarkably high, bearing in mind the few who are at risk and the few opportunities for infection, and the lepromatous cases are 2 to 1 against tuberculoid. It seems as if susceptibility must be linked to some intrinsic factor. "With such a hypothesis, infection may be acquired by brief contact, but prolonged contact will greatly increase the chance of the two factors being available at the same time."

In treatment their experience in Western Australia began with Diasone and Promine in 1947, and later Sulphetrone by injection, Thiacetazone, and DDS by mouth, INH, Ciba 1906, and Etisul were tried. These drugs have had a dramatic effect on the discharge rate from Derby Leprosarium. In the early days of the drug therapy patients were discharged too soon: now it is only after 2 years of negative smears. Combinations of drugs are now used. For neural cases surgery has been used, but the influence of chemotherapy has been disappointing until recently, when Ciba 1906 has brought more promising results, and the use of intra-neural hydrocortisone is being tried as an adjuvant. Ciba 1906 also has a very satisfactory effect on the general wellbeing and mental attitude of the patient. DDS, on the other hand, has seemed to have a low-grade toxicity which is anti-euphoric. They think a good plan of treatment would be to start with Ciba 1906 for the first year possibly with Etisul added during the early months. Later DDS may be used with Promacetin or INH plus Thiacetazone as alternatives for DDS when the latter is badly tolerated.

The social and epidemiological effects of the new therapy are good. Patients come voluntarily for treatment and cases are seen much earlier. The need for isolation is not considered to be abolished,

but greater surveillance in the field is being developed. A medical officer has been appointed to help control the endemic diseases of the aboriginals and he will examine all persons in order to detect leprosy at an early stage, and to supervise contacts, and the aim is complete eradication of leprosy, perhaps in the next decade. For whites, segregation may be in home conditions after a period of stabilisation in hospitals. The low toxicity of Ciba 1906 makes this plan quite practical. Prophylactic BCG has been confined to infants born in the leprosarium. They are removed at birth to the care of Mission bodies or foster parents.

In the leprosarium, which dates from 1935, in 1952 for the first time in its history there were more discharges than admissions, and that has remained so ever since. In 1951 there were 333 patients at the end of the year, and in 1958 there were 150, and discharges had risen to 65.

Western Nigeria Campaign to Eradicate Leprosy: Government's New Battle to Remove Public Fears of the Disease. "News from Western Nigeria", 10, Bruton Street, London, W.1, has sent the following information:—

At Ossiomo, a Centre of the Leprosy Service of Western Nigeria, following on the practical experience of the curability of leprosy, they have begun to try to change the social prejudice against the disease. Ossiomo leprosy hospital was opened by the Benin Native Administration in 1930 under the direction of a woman doctor, Dr. L. M. Lengauer. It is a model village, containing not only a hospital of 160 beds, but full civic features and welfare and recreative facilities. When positive cure of the disease approaches the patients are apt to be apprehensive about their welcome when they leave and enter civic life. There is the fear of ostracism and public indignity and the application to them by the public of the stigma of having been in the leprosy "colony". The Health Minister, Mr. J. O. Adigun, analyses the task of eradicating the fear and stigma of leprosy as an educational job in the main. The subsidiary leprosy treatment centres which have been set up in every town and village in the area help considerably in the diffusion of the knowledge and understanding of leprosy which combats irrational prejudice. They have already made some impact on the tendency for leprosy patients to consult "bush doctors" whose only remedy is to apply a corrosive fluid to the lesions of leprosy. They also hope to persuade more and more patients to come forward, by a policy of rehabilitation as well as cure of the disease. Western Nigeria aims at nothing less than eradication of leprosy.