

REVIEWS

LEPROSY SURVEY OF CEYLON, 1933. (By R. G. Cochrane and D. S. de Simon.)
Ceylon Government Press, Colombo, 1934, pp. 42.

The need of a leprosy survey as the first essential step in tackling the problem in Ceylon was pointed out by the Director of Medical and Sanitary Services in his report for 1930, and as a result two medical officers were sent to India for training. In October, 1932, they made a preliminary survey of known cases, and in March, 1933, started a survey of the Eastern Province. On invitation of the government Dr. Cochrane joined the survey officers in May, 1933. The report under review consists of: (1) Cochrane's findings and suggestions, and (2) Dr. de Simon's reports on (a) the known cases of leprosy in Ceylon, and (b) the survey of the Eastern Province.

Cochrane's report comments on the inadequacy of the present antileprosy system, with rigid segregation, laxity of home-isolation, and control of discharged patients. Emphasis is laid on the importance of arresting the disease in an early stage. He recommends (1) creation of a leprosy board, (2) organization of treatment and prevention centers, (3) a voluntary segregation system similar to the British mental institutions, (4) postgraduate courses, and (5) special training of medical officers. These findings were based on the observations made in the rural areas of the Eastern Province and the urban area of Colombo Municipality, but the recommendations, Cochrane states, will probably apply equally to any area in Ceylon. His report concludes with a suggested plan of work for the leprosy survey officers.

Knowledge of the early history of leprosy in Ceylon is scanty. The leper ordinance of 1901 was responsible for the present practice of segregation in the two asylums at Hendala and Mantivu, which institutions afford the records of known cases in Ceylon. Out of a population of over five millions there had been, to the end of 1932, a total of 2,235 cases, of whom 1,489 were then recorded as still alive while 746 had died. Of those alive, 1,212 were males and 277 females, a proportion of 4.3 to 1. The principal endemic areas were the Western, Southern and Eastern Provinces. No race was found to be exempt, but the highest incidence was amongst the descendants of the Portuguese and the Dutch. The oldest case was 85 years of age and the youngest 4 years; in 61 per cent of cases signs of disease were shown before the thirtieth year.

The main feature of the survey in the Eastern Province was the manner in which the problem was tackled with the co-operation of all officers of the medical department, the chief headmen of the districts and the minor headmen

(*vidanes*) of the villages. The work was carried out unobtrusively, the people being made to understand that it was a survey of skin disease with special reference to leprosy. Careful handling of the patients and their contacts opened the way for propaganda work and the teaching of preventive methods to the patients and their families. The survey signifies a complete change in the outlook and attitude towards the whole problem in Ceylon, characterized by the opening of treatment centers and the inauguration of preventive propaganda, training of officers, and the periodical examination of contacts and school children.

—D. S. DE SIMON.

LOBEL, L. W. M. *Lepra bubalorum*. Drukkerij Schotanus and Jens, Utrecht, 1934; pp. 234 and 22 plates. Also issued as *Vecartsenijkundige Mededeelingen* No. 81, Department van Economische Zaken Nederlandsch-Indië.

The author, a veterinarian connected with the veterinary institute of Buitenzorg, Java, has devoted himself to the study of a disease of the water buffalo which was described by Kok and Roesli in 1926 as "tuberculosis(?) of the skin." On the basis of histological findings the author has named it "buffalo leprosy," on quite as good grounds, it may be said, as the name "rat leprosy" is applied to the condition which it designates. In the present monograph he records observations which, apart from their intrinsic scientific value, are important in that they broaden the field for the study of leprosy-like diseases in animals, knowledge of which may contribute materially to that of the human disease.

The manifest cases of buffalo leprosy are marked clinically by the presence of skin nodules varying in size from 5 to 60 mm., which may soften or ulcerate. The hair of the animal may be thin locally or generally, and the skin may be depigmented in discrete spots or conglomerated areas. Apparently the general state of health is not seriously affected; animals with manifest disease are considered by their owners to be perfectly satisfactory for work. The condition does not seem to be very progressive, or only progressive to a certain extent, in analogy with rat and human leprosy. Bacteriologically the skin-nodules are characterized by the presence of great numbers of acid-fast bacilli, both well-shaped rods and granules; these are grouped in large bundles and globi which can be recognized under low magnifications. As in rat leprosy, these conglomerated (intracellular) colonies of bacilli form a simple and reliable diagnostic criterion. In two of the cases studied the organisms were found in granulomata of the nasal mucous membrane, and once in the subcutaneous lymph nodes of the affected region. Apparently the lymph nodes are generally free from bacilli. The skin nodules are located in the corium, and generally a thin zone next to the epidermis is free, as in human leprosy. The author draws a comparison of the histological features of these two affections. In the buffalo lesion cells occur with the same characteristics as Virchow's lepra-cells, though the vacuolization is more advanced than in human leprosy and the stage that in the human lepra cell is considered extreme is common here. The author did not succeed in cultivating those microorganisms, and animal inoculations into buffalos, guinea pigs, white rats and fowl were negative within an observation period of one to two years. Most of the tuberculin tests (bovine and avian)

were also negative, and this together with the negative result of the inoculations suffices to exclude bovine and avian tuberculosis.

Lobel concludes that buffalo leprosy is a chronic infectious disease, caused by acid-fast micro-organisms, which shows a great resemblance to nodular leprosy in man. The questions whether the micro-organism is identical with that of human leprosy, and whether mutual infection is possible can not yet be answered. Further investigation of the occurrence of this leprosy-like disease, a search for latent cases, and study of the contacts of the observed cases will be most important. The same applies to experiments aimed at transferring the disease to other buffalos. The field of investigation deserves the intensive interest of research workers in human leprosy. —P. H. J. LAMPE.

RIBEIRO, E. B. Aspectos cirurgicos da caseose dos nervos na lepra. [Surgical aspect of caseation of the nerves in leprosy.] Sociedade Editora Medica Limitada, S. Paulo, Brazil, 1934, pp. 47.

This study of the caseation of nerves in leprosy, presented to the Society of Medicine and Surgery of Sao Paulo, is based on ten cases observed personally by the author and is limited to the surgical aspects of the condition; the clinical and pathological features of this condition will be dealt with by Drs. Campos and Oria. However, the condition is described briefly. In leprosy neuritis the peripheral nerves become enlarged, sometimes showing swellings similar to the beads of a rosary. Generally fibrosis follows ultimately, but sometimes caseation occurs, probably due to an increased defensive power of the organism with destruction of the bacilli and formation of toxic substances; following this there is liquefaction. This material is surrounded by a granulomatous tissue containing fibroblasts, collagenous fibers, giant cells, lymphocytes, histiocytes and newly-formed vessels, generally without leprosy bacilli. The caseous area, usually found in the endoneurium, protrudes in the epineurium into the superficial tissues toward the skin, which it eventually reaches and bursts spontaneously.

The author concludes that this is a surgical condition, and divides the cases into three groups according to their clinical features and the surgical measures indicated. The first group includes cases in which the tumor has burst, resulting in a contracted scar that binds the nerve to the skin; in such cases he performs neurolysis, ensheathing the nerve with a piece of peritoneum freshly taken from another operation. The second group comprises the cases in which there are tumors in the nerve in one or more places; in such circumstances he dissects and excises the tumors and incises the nerve to remove the caseous material. In the third group are those cases in which the condition has reached the secondary, cutaneous nerves; in these less conservative measures are taken, the tumors being removed by excision of the portion of the nerve affected.

—[From the AUTHOR'S SUMMARY.]