

# Reviews

INTERNATIONAL JOURNAL OF LEPROSY, Vol. II, No. 2 (April-July, 1934).

Dr. G. W. Peschkowsky writes on "Increase in the Phagocytic Activity of Polymorphonuclear Leucocytes as the Result of Inflammatory Reaction in Leprosy." We reproduce the summary, which is as follows:—

The blood picture appears to be an expression of the type of inflammatory reaction of the organism—of the reticulo-endothelial system of the organism—to the introduced leprous infection.

(1) Monocytosis seems to be unfavourable from the viewpoint of prognosis, since in the majority of the cases it marks the dissemination of the process, the formation of fresh granulomata and increase of the old ones. From the pathologic-anatomical viewpoint it corresponds to the proliferative chronic inflammations.

(2) Lymphocytosis appears to be a favourable symptom from the prognostic viewpoint in the majority of cases, since it coincides with the period of convalescence in the course of the disease, and from the pathologic-anatomical viewpoint it is manifested by decrease or checking of the inflammatory process.

(3) Polymorphonuclear leucocytosis runs parallel with an intense exacerbation of the process in the lepromata, manifested by suppurative inflammation with subsequent destruction of the bacilli in the polynuclear leucocytes.

(4) A mixed white-cell picture corresponds to the clinical course and to the pathologic-anatomical substrate.

Dr. Gordon A. Ryrie contributes a further article on "The Use of Fluorescein and Phthallic Acid in Leprosy." Fluorescein injected as described in the article, he states, appears to be worthy of a trial as a six weeks' course of treat-

ment between the chaulmoogra preparations. Dr. Ryrie states that it has been found that in a number of cases the hydnocarpus esters are better tolerated after such a course, and has gained the impression that improvement due to fluorescein sometimes continues some time after the drug has stopped. He concludes that there appears to be little evidence of beneficial effect of fluorescein in advanced cases.

The article on "The Irritant Constituent of Anti-Leprotic Oils," by Drs. Paget, Trevan and Attwood, was abstracted by the authors and appeared in a previous number of LEPROSY REVIEW (Vol. VI, No. 2, April, 1935).

Dr. J. O. Nolasco writes on "Histologic Studies of the Plancha or Infiltration Method of Leprosy Treatment." His conclusions are as follows:—

(1) In monkeys given intradermal and subcutaneous injections of hydnocarpus oil and its iodised ethylesters, the injected oily drugs are absorbed by way of the lymphatics.

(2) With subcutaneous administration comparatively little of the drug infiltrates the corium. The intradermal method is therefore superior since the bulk of leprotic skin lesions are in the corium.

(3) Nerve trunks (ulnar and median) were found to be unaffected by injections in the forearm in this experiment.

(4) Cellular reaction in the tissues injected with oil is not a prominent feature, in contrast with that caused by the iodised ethyl esters. From this it is inferred that the latter is probably the more effective drug in the local treatment of leprosy.

(5) The macrophage is mobilised locally at the site of the injection, along the lymphatic vessels, and in the regional lymphatic nodes, this being an increased local defence reaction against the injected oil and, incidentally, against *Mycobacterium leprae*.

(6) The local injections of the lesions in lepers and the consequent absorption of the injected drug into the lymphatics and the regional lymphatic nodes, is believed to be effective in bringing the drugs in concentrated form into direct contact with the bacilli in the lymphatic system.

Drs. Ota and Sato contribute an article on the "Cultivation of Leprosy Bacilli" and conclude with:—

(1) An acid-fast bacillus cultivated from leprosy materials is not necessarily the leprosy bacillus. We have obtained cultures of the human tubercle bacillus from a clinically typical leprosy nodule and a typical leprotic lymphoma.

(2) It is very difficult to obtain the tubercle bacillus from the blood by Lowenstein's method, even with lepers having complicating tuberculosis. We used this method in 83 cases of advanced nodular leprosy, one half with pulmonary tuberculosis, and obtained no culture of the tubercle bacillus. On the other hand we cultivated twelve strains of acid-fast bacilli which were not tubercle bacilli.

(3) In one instance, four months after an acid-fast bacillus was obtained from a leper by the blood culture method, the same organism was also recovered from a nodule removed from the same patient, demonstrating that the cultures were not contaminations from outside, but that the patient had a general infection with this organism. This is important evidence that the organism is the leprosy bacillus.

(4) Two other strains of the acid-fast bacillus were cultivated from nodules from two patients. It is more difficult to obtain these organisms from the nodule than from the blood, though we believe that more positive results may be obtained by improving the technic.

(5) From the results of animal inoculations and complement-fixation and skin reactions not described in this paper, it seems highly possible that the strains obtained by us are *Mycobacterium leprae*.

(6) These strains may be divided into two types according to the colour of the cultures, one being whitish, the other ochre or orange coloured, though these characteristics are not always constant, and in some cases whitish strains change to ochre colour during sub-cultivation. These types we call *Mycobacterium leprae* var. *album*, and *Mycobacterium leprae* var. *aurantiacum* respectively.

The article on "The Distribution of Leprosy in the Sudan," by Dr. O. F. H. Atkey, was reprinted in LEPROSY REVIEW, Vol. VI, No. 1 (Jan., 1935).

It is becoming increasingly difficult to give readers an adequate idea of the valuable material which is being published in the *International Journal of Leprosy*, and therefore we would urge those who are in touch with leprosy work to join the International Leprosy Association, and so be able to read these excellent articles in the Journal.