

REVIEWS.

International Journal of Leprosy, Vol. V, No. 2, April-June, 1937.

The first article by M. L. R. Montel and J. Bablet describes *Tuberculoid Leprosy in Cochin China*. Three questions are asked and discussed:—Is “tuberculoid leprosy” a special form of leprosy? Is it of the nerve or

cutaneous type? Is it a transition between these two types? After an excellent and picturesque description of the appearances of tuberculoid lesions he sums up as follows: "The histological appearance of the leprides called tuberculoid is not that of an evolving lesion but of one in a state of equilibrium, perhaps provisional, between aggression and defence. It seems that the bacillary multiplication becomes arrested by tissue reaction, by a defensive organisation particularly effective where the nodules with giant cells play the rôle of centres of resistance." He mentions that occasionally he has found typical tuberculoid lesions transforming themselves into lepromatous lesions of the cutaneous type. He describes and illustrates with excellent photographs a case of the advanced cutaneous leprosy which after treatment with methylene blue developed tuberculoid nodules in the hands, the two types of lesions being present at the same time, cutaneous leprosy in the face and especially the ear lobes, and tuberculoid leprosy in the extremities. [This offers additional evidence: (a) that as the process of healing of advanced cutaneous leprosy takes place (whether spontaneously or as the result of treatment) the disease in the extremities takes on the neural type; (b) that the neural type is possibly always of "tuberculoid" nature.]

J. L. Maxwell gives *A Statistical Review of 1,379 cases of Leprosy in China*, information having been obtained through a questionnaire. There were 1,091 males to 288 females; he remarks: "It is certain that this is not the true state among the lepers of China. Because of the greater provision in this country for the medical treatment of men than for women, and the general rule that men come for treatment for most diseases in larger proportion than do women, the relative proportion of males is greatly exaggerated. In clinics where the provision for the treatment of women is the same as that for men the difference is much less striking." Under "occupation," 88 per cent. were among farmers, labourers, herdsmen, hawkers, fisherman and sailors. The age at which the disease was most frequently first noticed was between 15 and 19 (20 per cent.). Thirty five per cent. showed their first signs in the buttock and lower extremity. Regarding classification Dr. Maxwell truly remarks: "Our own experience is that even those with expert knowledge will often differ with regard to the subtype to which a case should be assigned, and that classification by a single observer will itself vary with his increasing ability in securing positive bacteriological examination."

G. A. Emerson in a paper dealing with this subject shows that "Comparison of toxicity curves indicates that chaulmoogra oil given orally is appreciably more toxic when preceded by parenteral injection of dehydrocholic acid, presumably through promotion of intestinal absorption."

A. J. Salle and J. R. Moser write on *Influence of environment on the Phenomenon of Acid-fastness*. In a previous paper it was considered that human and rat leprosy are caused by the same organism, as acid-fast rods morphologically and physiologically identical had been grown from human and rat leprosy lesion. "However, it is doubtful if the true leprosy bacillus has been cultivated, because it appears that no two workers have isolated the same organism in culture." Regarding the subject of the present paper it is concluded regarding four strains of diphtheroids, "that for the production of acid-fast forms from these organisms two factors are essential: (a) The medium must be of such composition as to foster the growth of the organisms to the stage at which they are capable of becoming acid-fast. (b) Cholesterol or some other substance must be supplied in the medium when this stage is reached."

Leprosy in India, Vol. IX., No. 1. Jan. 1937

In the Editorial Dr. Lowe states: "I have recently visited various parts of India and seen many different institutions and clinics. Though the visits were made with other ends in view, I took the opportunity of investigating in a cursory way the clinical manifestations of leprosy as seen in various parts of India. My own previous general impressions, and also the findings of Wade, were confirmed. There seems to be no doubt whatever that Calcutta is peculiar in producing so many cases of tuberculoid leprosy and also such marked forms of it. This, however, is only one side of the picture. The other side shows that in other parts of India tuberculoid leprosy, while not nearly so common as in Calcutta, is still of not infrequent occurrence, patients with such lesions forming in many places 10% to 25% of the patients attending a clinic, and that the true nature of the condition is often not realised by the doctor in charge, cases being classified as 'C' cases because of the thickening and erythema of the skin. On one occasion a doctor said 'Yes, we see "tuberculoid" macules but we don't find the thick cutaneous nerves and nerve abscess which you write about in Calcutta.' However, when we came to examine his cases, we did find thickening of the cutaneous nerves supplying the macules, and also one case of nerve abscess. The cases had not been properly examined. I had other similar experiences."

Wade describing the result of his visit to India remarks on the comparative frequency of the tuberculoid type of leprosy in North India and especially at the Calcutta clinic. He also writes of the diffuse type of leprosy as found in India:

"However, there is another phase of leprosy in that country that is striking to an outsider, and in discussing the peculiarities of the disease there it should be mentioned. This refers to that form of the cutaneous type of the disease in which bacilli can be obtained from almost any part of the body surface, though there may be no definite infiltration to lead one to suspect their presence. To one accustomed to working with lighter-skinned people in whom one expects to find at least definite erythema if not frank infiltration in areas from which bacilli can be found, it is somewhat bewildering to be shown many cases that have widespread leprotic involvement but little or no suggestion of infiltration of much of the involved surfaces (especially of the trunk) only a peculiar indefinite mottling, perhaps due to slight erythema under the pigment but not definitely pathognomonic, and at most a slight shininess. Muir ascribes this to (a) a lack of general resistance to the infection that permits the bacillus to multiply generally throughout the skin, and (b) to lack of local response to its presence that results in failure to produce infiltrations and nodules. Apparently no detailed comparative study has yet been made of the pathology of these cases and of the more ordinary ones, but material has been collected for such a study."

Wade stresses the importance of transfer of workers, quoting from the Leonard Wood Memorial Conference Report:

"It not infrequently happens that the results obtained by a worker or a group of workers in one country are not confirmed by those working in other countries. Whether this is due to peculiarities of conditions prevailing, or to the personal equation, or to other factors, it is usually not apparent. Progress toward the clarification of questions of regional differences could undoubtedly be accelerated were it possible for persons who have carried out studies in one region to be transferred to another in order to continue or repeat such studies there or to undertake correlative investigations. It is deemed desirable to bring the possibilities of such a plan to the notice of institutions and organisations concerned with the study of leprosy."

H. H. Gass writing on *A Neural case* says:

"I do not think it wise to remove parts of phalanges or metatarsals or metacarpals. Very seldom have we gotten healing following such a procedure. Even though merely the head of a metatarsal seems to be involved, I prefer to disarticulate the entire bone. Results have borne out the advisability of this. In the beginning of my experience I was prone to be too conservative, and removed only those parts which seemed, upon close inspection, to be involved."

Leprosy in India, Vol. IX., No. 2. April, 1937.

An article appears by H. W. Wade and J. Lowe on *Type-Distribution of patients at the Purulia Leper Colony*. The last two paragraphs are of particular interest and may be quoted in full:

"In both Purulia and Calcutta among the cases recorded as cutaneous, an outstanding feature was the common occurrence of the 'diffuse' form (26 out of 74 cases in Purulia). In several instances it would have been very difficult to say from superficial observation

that there was anything wrong with the patients. Many of these cases showed the typical persistence of the diffuse condition of the trunk after fairly conspicuous infiltrations and even nodules had appeared elsewhere. It would be of interest to obtain data on prognosis on these cases as compared with those with lesions of more limited distribution, in which the lepromatous process is more active and produces evident infiltration more promptly.

Another interesting group among the cutaneous cases there are those which may be called 'secondary cutaneous', i.e., those in which there was evidence of neural-type lesions (macules) precedent to the development of the cutaneous form of the infection. The number was not large (12 in Pufulia and 5 in Calcutta), but it was enough to suggest that among such cases the cutaneous-type skin affection often does not become widely distributed, or diffuse. This leads to the question whether, in cases becoming cutaneous by conversion from a well-established neural-type phase, the prognosis is better than in those that either become cutaneous after an indefinite 'incipient' stage, or else are frankly cutaneous from the outset."

There is an interesting article on *Tests of the Suitability of Hydnocarpus Oil for Injection*, which we hope to reprint in this Journal at a later date.

I. Santra writes on *Leprosy in the Eastern States Agency*. Frequently it was found that yaws and leprosy had been confused.

Leprosy, a practical text-book for use in China by J. L. Maxwell.

This is a practical text-book of some 100 pages and many well-produced illustrations. While written with special reference to China it will be found useful by anti-leprosy workers throughout the world. Regarding the distribution of the disease Dr. Maxwell says:

"Writers of works on leprosy have a way of suggesting that climatic factors are of considerable importance in the prevalence of the disease and that low lying, damp, tropical, areas are particularly the places where leprosy is to be found. The distribution outlined above is sufficient evidence that any statements of this nature are to be looked on with great suspicion. There is no single climatic factor that is common to the areas where leprosy is of high incidence in China. The disease is very prevalent in the low, hot, tropical, steamy delta of the Canton rivers. It is equally prevalent in the highlands of tropical Yunnan and in the dry sandy northern plains of Shantung. It is common in the low, hot, coastal regions of Canton and Shantung and in the cold, high mountainous areas of western Szechwan and Eastern Tibet. Indeed we can point to a valley in the former province among the eternal snow clad mountains of the 'Roof of the World' known among the inhabitants as 'the leper valley'. Leprosy is common in the southern alluvial plains and in the north-western loess steppes. It seems quite hopeless to associate the disease with any climatic factors.

Dietetic factors (see Chapter IX) may possibly be of more importance but, interesting though certain suggestions are along this line, the knowledge we have of the vitamin and caloric values of the diets of the people is too scanty to allow of anything but quite unjustifiable

speculations. Rice as a principal article of diet has been suggested, in India, as a contributing factor and its extremely low protein content has been associated with this suggestion. In China, while the large bulk of the cases are found in the rice eating districts, the disease is also prevalent in areas where kao-liang (sorghum), millet and maize form the staple foods, these being of a somewhat higher though still low protein contents.

Speculation along these lines is little more at the moment than waste of time but the matter deserves further investigation and the possibility of an a-vitaminosis factor in the development of leprosy needs careful consideration. It is at least suggestive that leprosy is said to be on the increase in the province of Hupeh since the flood disaster and subsequent famines of 1931, and there are some suggestions that the disease has become more common in the Swatow region of Kwangtung following on the appalling typhoon destruction of 1922."

Regarding staff and management he says:

"The most successful leper settlement that we know has, apart from the visiting doctor, only one non-leper on the staff—the business manager. This is quite the ideal for the settlement that is to be run on economical and practical lines. Nurses and technicians can be chosen among the lepers themselves and trained. The cooks should be leper inmates best chosen by the patients themselves. All coolie work should be done by lepers. Carpenters, masons, tin-smiths and other craftsmen can usually be found among the inmates. All this takes time to establish and it may be necessary when the settlement is begun to employ outside help but this should be dispensed with at the earliest possible date. This is especially the difficulty of the small settlement but as the numbers grow it is practically always possible to find craftsmen and other workers among the inmates.

The one great problem of management is to secure the right man for general-superintendent. Such men are few and far between and the settlement is happy that can get the ideal man. His qualifications have to be rather numerous, the ability to handle men and keep them working, the knowledge of agriculture and how best to plan the available ground for vegetable crops, the power to keep every inmate at work and happy over his or her work, the genius for enforcing discipline without the use of force and keeping the whole place clean and tidy without constant nagging."

Lupus Vulgaris Treated by Intradermal Injection of Hydnocarpates by E. Wallace. B.M.J. June 5th, 1937, page 1151

Fifteen cases were treated by this method, first iodized moogrol and later phenyl-ethyl hydnocarpates being used. Of these 7 became quiescent, 2 quiescent except for a few active nodules, 3 much improved and 3 only slightly improved. The length of treatment varied from six months to three years. Subsequent infiltrations were only given when all reactive signs of previous injections had disappeared. "Progress has undoubtedly been more rapid than that made by artificial light treatment alone." The author states that, as the esters are absorbed very slowly from the skin and their effect on lupoid tissue is continued long after

the purely irritant reaction has passed off, he hesitates to regard the action entirely as a non-specific one.

We might suggest as a likely hypothesis that possibly the action of hydnocarpus preparations in lupus and in leprosy, may be to stimulate the tissue cells to active phagocytoses of the mycobacteria present in very small numbers in the lesions. If this is so then the disappearance of clinical signs would be dependent on the gradual resolution of the granuloma, which would begin only after the germs had been destroyed.

Damien the Leper by John V. Farrow (Burns Oates and Washbourne, Ltd.), with a foreword by Hugh Walpole.

Mr. Farrow's first interest in leprosy dates from a time when he was marooned on a beautiful island and found that he had unwittingly slept in a bed formerly occupied by a leper. A friend of this leper had been born in Molokai, Damien's leper island, and spoke with great reverence of Kamiano—the native name for Damien. Thereafter the writer made investigations at Hawaii and in Belgium, where Damien was born, and the interest thus aroused resulted in this book.

Damien, a young Catholic priest, offered, when his brother was prevented by an attack of typhus from going abroad, to take his place as a missionary to the South Seas. He volunteered for service in Molokai the leper island in Hawaii. There he lived among the lepers, tended them, fed with them and in the end acquired their disease. Gradually the disease advanced, but he stayed with his fellow sufferers till the end heroically ministering to their physical and spiritual needs as long as he had strength. Great and noble as was Damien's service to lepers during his life, he served their cause still more in death. In reply to an ignoble attack on the life and character of this devoted man, Robert Louis Stevenson wrote his famous open letter which roused the whole civilized world to do something to alleviate the sad lot of those suffering from this terrible plague. Stevenson's letter forms a land-mark in the history of leprosy from which date innumerable humanitarian efforts.

The old type of leper refuge was indeed a place of extreme horror and distress, very different from the modern leper settlement of the best type where the atmosphere of fatalistic despair has been replaced by one of hope and happy industry. But the transformation is largely due to those who, like Damien, have given their lives to the service of these poor people despised and spurned by their fellow creatures.