

REVIEWS

International Journal of Leprosy, Vol. VIII No. 1, Jan-Mar, 1940.

Early Lepromin Reaction, by J. M. M. Fernandez. The writer describes the initial erythematous halo produced within 24 hours after intradermal injections of lepromin (a sterilised suspension of ground up leproma) or lepromin filtrate. He found that this halo reaction corresponded in positivity in 95% of his cases with the late lepromin reaction when readings were taken after three weeks, both being positive in tuberculoid and negative in lepromatous cases. He considers that the immediate reaction is due to soluble, and the later reaction to insoluble, products of lepra bacilli, to both of which the patient may or may not be sensitized. Similarly when the filtrable toxins of the Koch bacillus (tuberculin) and the total toxins of the same (suspension of the bacillus killed by heat) are injected intradermally into lepers, the former induces only an early reaction whereas the latter induces both this reaction and a late one consisting of a nodule or papule in the third week.

Mitsuda's Skin Reaction (Lepromin Test) in Children of Leprous Parents, by C. B. Lara. One hundred and ten children of ages from one to eighteen months were tested, the tests being repeated twice at four months intervals. Sex had no influence on the reaction. The frequency of positive reactions was in direct proportion to the age. In the retests there was a progressive increase in the proportion of positive reactors which could not wholly be attributed to further ageing.

Treatment of Lepra Reaction and the Lepromatous Ulcers by Antimony and the Arsphenamides, by R. C. Germond. The author obtains fall of temperature and clinical improvement with intramuscular injections either of foudadin (0.5 to 3.5 c.c. daily or every second day) or prontosil (5 c.c. daily), the latter giving better results.

"Intra-arterial injection of 5 to 10 c.c. of soluseptasine in septic leprotic ulcers and burns results in their rapid cleansing with corresponding improvement in the general condition. Growth of healthy granulations is promoted and dead tissue is rapidly eliminated. Despite the presumably greater concentration of the drug on the injected side, the effect does not seem to be more pronounced than on the noninjected side. The results obtained by the intramuscular injection of soluseptasine do not seem to be inferior to those obtained by the employment of the intra-arterial route. The hypothesis that acute lepra reaction is due to secondary infection is rendered more plausible by the success of prontosil in the treatment of this condition. Neither foudadin nor the arsphenamides appear to possess the least curative value on leprosy itself. Their virtue lies in their action against the inflammatory element (secondary infection). The treatment of burns and lepromatous ulcers is greatly simplified by chemotherapy. Their rapid cleansing is insured without active local treatment, and elastoplast can be applied at a much earlier date than ordinarily. In neural cases chemotherapy does not dispense with surgical treatment in the presence of necrosed bone. When, on the other hand, the septic condition originates in the tendon sheaths or small articulations, chemotherapy may render surgical measures unnecessary."

Tuberculoid Changes in Leprosy, by A. A. Stein. Six cases of leprosy are described and discussed, most of them having tuberculoid lesions. The author remarks:—

"Everything points to the conclusion that the tuberculoid condition is not characteristic of a definite form of the disease."

He explains this statement by saying:—

"It is known that the tissue change is not only typical for tuberculosis, but that it also occurs in syphilis (third stage), fungus infections and other diseases. In the lesions of tuberculosis the proliferative character of the process is very marked, especially in tuberculosis of the skin."

Basal Metabolism in Leprosy, by H. Ross. The examination of three hundred and eight cases of leprosy showed that 75.4 per cent had rates within the normal limits. There was no definite correlation between the rates and the various stages of the disease.

Leprosy Control in Brazil, by J. B. Barreto. He estimates 35,241 cases in Brazil for which there exist, or are planned for the future, 24,888 beds in 51 institutions.

In an editorial replies to a symposium are summarized and discussed, the question being whether or not a medical student with leprosy should be allowed to continue his course.

' From the discussion on the whole, material support is to be found for the conclusions (a) that a student with the lepromatous form of leprosy should be required to discontinue his medical course, regardless of how advanced in it he may be; (b) that a student with the benign form of the disease might be allowed to continue, provided that he submit to proper medical supervision and that opinion of those with whom he comes in contact is not adverse, but that even in such a case the individual concerned should give serious consideration to the limited promise that the future would hold for him professionally should the disease not be overcome early in its course; (c) that in any case it would be preferable for the individual to give up the burden and strain of student work in order to concentrate his efforts on combating the infection, and (d) that once this is accomplished successfully he might be permitted to resume his course should he then consider it desirable to do so."

A Serologic Verification Test in the Diagnosis of Latent Syphilis, by R. L. Kahn, *Arch. Derm. and Syph.*, 41, 5 May, 1940.

"A serological test is presented in this article which should help to detect false positive reactions obtained in serodiagnosis of syphilis. The test is based on experimental studies which indicate that serums of non-syphilitic subjects which give positive reactions possess characteristics that can be differentiated from those possessed by serums of syphilitic subjects. The technic of the test is similar to that of the standard Kahn test except that it is carried out at 37° C and at 1° C Potentialities for the general biologic type of serologic reaction appear to be a frequent occurrence in patients with leprosy who have negative serologic reactions. Of 24 such patients, 50 per cent showed potentialities for this type of reaction. Table 6 summarizes the results obtained when 10 serums from patients with leprosy presumably free from syphilis, which gave negative reactions to the Kahn test, were tested at the different temperatures. It is evident from this table that the precipitation results at 37° C are negative, while those at 1° C are positive.

Case Number*	Standard Kahn Reaction				Precipitation Results					
					37 C.			1 C.		
	Tube 1	Tube 2	Tube 3	Final Result	Tube 1	Tube 2	Tube 3	Tube 1	Tube 2	Tube 3
644	—	—	—	Neg.—	—	—	—	0†	+++	++++
694	—	—	±‡	Neg.—	—	—	—	0	++++	++++
755	—	—	—	Neg.—	—	—	—	+++	+++	++++
860	—	±	+‡	Neg.—	—	+	+	0	++++	++++
918	—	—	—	Neg.—	—	—	—	++	+++	++
963	—	—	—	Neg.—	—	—	—	++	+++	++++
994	—	—	—	Neg.—	—	—	—	+++	++++	++++
1019	—	—	+‡	Neg.—	—	—	—	+++	++++	++++
1058	—	—	—	Neg.—	—	—	—	+++	+++	++
1084	—	—	±‡	Neg.—	—	—	—	+++	+++	+++

*These case numbers accompanied the specimens submitted for examination by the United States Marine Hospital, Carville, La.

†0=insufficient serum.

‡These precipitation readings are below the reporting scale of "doubtful."

"The verification test is intended to be used as a supplementary procedure to diagnostic serologic tests when such tests are doubtful, weakly, temporary or fluctuating positive reactions in cases of asymptomatic syphilis."

Leprosy in India, XII-2, Apr. 1940.

An Epidemiological Study of Leprosy with Special Reference to the Leprosy Survey in Santalpur (North Bengal), by J. Lowe and I. Santra. This paper is one of considerable importance and is summarised as follows:—

“ The clinical and epidemiological variations of leprosy seen in different parts of the world are briefly discussed, and it is considered that the chief factor concerned in the production of these differences is that of race. The importance of age-distribution and type-distribution as indications of the seriousness of leprosy in a community is strongly emphasised. The hypothesis is made that when leprosy is increasing, the proportion of lepromatous cases is usually high, the incidence in children is also relatively high, and in old people low; whereas when leprosy is decreasing the proportion of lepromatous cases falls, the incidence in children is relatively low, and in old people relatively high.

“ The details of a survey of 3,600 Santals in North Bengal are given. The incidence was high (7.4%) but the proportion of lepromatous cases was very low (4.1%), while the study of age-distribution showed a relatively low incidence in children and a high incidence in adults and old people. The forms of leprosy were exceedingly mild, and figures of type-distribution in the different age-groups indicated that very few of the mild cases later became serious.

“ It is considered that the above findings justify the opinion that in Santalpur, in spite of very high incidence, leprosy does not constitute an important health problem. The desirability of further studies along similar lines is emphasised.”

[There can be no doubt of the importance of *race* as determining both the predominant type of leprosy and the seriousness of the disease as a health problem in any endemic area. But it is important to consider to what extent racial susceptibility is internal and physiological and to what extent it is environmental and dependent on social and economic factors.—Editor.]

Preservative Effect of Creosote on Hydnocarpus Oil, by N. K. De. This effect was determined by changes in the acid value, peroxide value, and specific rotation. The results of various controlled experiments suggest that creosote may act as an anti-oxidant when hydnocarpus oil with a comparatively high peroxide value is stored under conditions which accelerate oxidation, i.e., when it is kept exposed to air, light and foreign impurities. Obtaining a supply of really good oil and its proper storage are, however, much more important than the addition of creosote to it.

Leprosy Situation in War-Torn China, by T. C. Wu. *The Leper Quarterly*, Dec. 1939.

“ The Sino-Japanese war has wrought havoc with every phase of the life of the nation, politically, economically, socially and what not. That it also has an adverse effect on the leprosy situation is quite understandable. The fact that eight of the most heavily affected provinces with approximately three-fourths of the best

organized leprosaria and leprosy clinics in the country have fallen into Japanese hands, gives us a clear idea as to the effect upon the general condition of leprosy and its relief work. It is quite within our imagination that this devastating war has not only deteriorated the organised work of leprosy, but also caused the shift of the leper population from the city to the country and from one place to another. When one city was threatened by invasion the lepers would naturally flee for their lives to places of safety, and they would very often travel by foot hundreds of miles seeking for a refuge, their destination being invariably a leprosarium. We have a striking example in the behaviour of some patients in the Shanghai Leprosarium. Shortly after the outbreak of hostilities the majority of our patients left for home and elsewhere, and ten of them were so adventurous that they went, almost penniless, as far as Nanchang, Kiangse, Sinhwa and Hunan, where two of our affiliated leprosaria were located. But when these two cities became too hot for them with war rumours and atmosphere, they hastened back to Shanghai under unimaginable difficulties and hardships!

“According to the estimate of some authorities on leprosy, there are today no less than 5,000,000 people in the world suffering from the dread disease of leprosy. Of this number China contributes at least 1,000,000 scattered all over the country. Generally speaking, leprosy is more prevalent and virulent in the South and South-west than other parts of the country due to hot climate and mode of living.

‘But leprosy is a strange and mysterious disease. While climate is an important factor, it cannot be regarded as a criterion, for such northern provinces as Shantung and Kansu are as badly infected with leprosy as the southern provinces. Nor is the economic standard of people a deciding factor. Take, for instance, Shansi and Honan, where most people are living in mud houses and under most insanitary conditions. Yet these two provinces are practically free from leprosy. Tibet and Szechwan furnish another example. In spite of their cold climate, they are not immune from the dread disease.’

Self-healing of Reacting Tuberculoids in Infants, by N. S. Campos.
Revista Brasileira de Leprologia, Vol. VII, No. 4, Dec. 1939.

The author tells of two cases of leprosy in infants of 20 and 30 months respectively. He classifies them as reacting tuberculoid cases. They underwent spontaneous cure, no treatment having been used. The author concludes that there are certain forms of leprosy in infancy which, in the absence of superinfection, produce

lesions of tuberculoid nature and heal spontaneously with cicatrization.

Surgical Correction of Nasal Deformities Caused by Leprosy, by Antonio Prudente. *La Presse Medicale*, February 6, 1940.

The author recounts the various nasal deformities in leprosy and their causation by leproma formation and its contraction, and by destruction of the nasal cartilages, especially that of the septum. He uses two types of operation for their correction: (1) simple inclusion of resistant material with the object of replacing the cartilagenous nasal framework; (2) a skin transplantation to reconstitute the skin itself. The first operation depends upon the nature of the cartilagenous destruction. In simple saddle-back deformity due to alterations in the cartilage similar to those in the congenital or syphilitic deformity it is rare to have any respiratory trouble. Operative correction is done with the object of improving the appearance. He introduces an inert substance which is often condemned by French surgeons as having the disadvantages of a foreign body. He avoids the use of cartilagenous grafts as these are apt, in a leper, to become absorbed. He does not believe in using paraffin wax as in the damaged skin of a leper it does not give good results. He considers ivory the ideal material for inclusion. Not only is it tolerated by the patient, but also it can be moulded to the desired shape. It resists absorption, a fact which is so necessary in Hansen's disease. If the ivory is shaped exactly to the nasal depression it can easily be fixed in position. It must be smaller than the seat in which it is to be placed; the difference should be at least 3 or 4 mm. in each diameter. When there is a falling in of the point of the nose it is necessary to make a new inclusion at the level of the septum. In these cases the ivory does not give such good results, as the skin lacks elasticity. In the severer cases where the skin is destroyed the author takes a flap of skin from the forehead. The article is well illustrated and shows apparently satisfactory results in the cases described.

Ascites in Leprosy.

A letter in the *British Medical Journal*, May 18, 1940, describes a technique used by Dr. G. A. Rylie for treatment of ascites due to cirrhosis of the liver in leprosy.

"If the intra-abdominal fluid tension is high, enough fluid is removed to take off any considerable strain. Then a saturated solution of ammonium chloride is injected into the peritoneal cavity sufficient to make approximately a 1 per cent solution of ammonium chloride. In most cases this can be done with a 20 c.cm. syringe. The plunger is drawn back and pushed forward several times to ensure a rapid diffusion of the salt.

Care must be taken to avoid leaving ammonium chloride along the needle track, otherwise a sinus may ensue. This injection is repeated every second day, and with the fourth injection 2 c.cm. salyrgan is given intravenously. The patient is then rested for two to four days, according to his condition. The course is then repeated, up to six times if necessary, though usually three or four courses are sufficient."

[Whether leprosy ever causes cirrhosis is questionable, but it is a not uncommon condition among lepers in tropical countries.—
Editor.]