

## CURRENT LITERATURE

*To take due notice of the current literature of leprosy is one of the most important objectives of the JOURNAL. For the benefit of readers to whom medical libraries are not readily accessible it is intended that, so far as possible, abstracts of the more important articles shall be sufficiently full and complete to afford a clear understanding of them, rather than merely of the nature of their content.*

*The Contributing Editors are depended upon primarily to provide these abstracts. However, since authors' abstracts are generally to be preferred to those prepared by others, readers are invited to submit abstracts of recent papers or reports written by them which have been published elsewhere.*

BARTMAN, I. Essai de traitement de la lèpre par de fortes doses des ethylethers de l'huile de chaulmoogra. Essai de traitement par l'iode. [Trial of strong doses of chaulmoogra ethyl esters in the treatment of leprosy.] Ann. Soc. Belge Méd. trop. 14 (1934) 7.

The author has employed large doses of chaulmoogra ethyl esters, in some cases going as high as 20 cc. For instance, one patient was given several doses of 8 cc. each during the first month, 7 doses of 15 cc. in the next two months, and 4 doses of 20 cc. in the next month. Another case was given 6 doses of 10 cc., 3 of 15 cc., and 4 of 20 cc. Three other patients received more moderate doses, from 10 to 15 cc. Local tolerance was not very good, and necessitated temporary interruption of treatment. The general tolerance was good, but the clinical results in these five cases were negative. The author does not commend this manner of treatment.

The author has used iodine in the form of a 10 per cent solution in alcohol, administered in milk. This was given in increasing dosage, going to 150 drops per diem in 3 doses, or even at one time. The treatment was continued for two or three months. Tolerance was perfect. The results as regards the clinical appearance of the macules seemed good. The patients were either treated before, or at the same time, with ethyl esters, or were without other treatment.—A. DUBOIS

BOURGUIGNON, G. C. Nouveau cas de lèpre diagnostiqué au Congo Belge chez des Européens. [A new case of leprosy diagnosed among Europeans in the Belgian Congo.] Ann. Soc. Belge Méd. trop. 14 (1934) 389-391.

Leprosy was contracted by a Catholic missionary who had lived for thirty years in Central Africa without returning to Europe. He was for some years in close contact with lepers, his own cook being a leper. The form of the disease was lepra maculosa, with bacilli and anesthesia. —A. DUBOIS

DUBOIS, A., WESTERLINCK, H. and DEGOTTE, J. Essais thérapeutiques dans la lèpre: le Manganyl. [Therapeutic experiments in leprosy: manganyl.] Ann. Soc. Belge Méd. trop. 15 (1935) 19.

Manganyl is an organic manganese compound containing oxyquinoline, with 7.15 per cent of manganese. The injections were intramuscular or intravenous the doses were 0.25 or 0.50 gm., the total amount given 5 to 6 gm. Tolerance was good, but the therapeutic results were nil. —A. DUBOIS

DUBOIS, A., WESTERLINCK, H. and DEGOTTE, J. Essais thérapeutiques dans la lèpre: le sulfate de cuivre. [Therapeutic experiments in leprosy: copper sulphate.] Ann. Soc. Belge Méd. trop. 15 (1935) 25.

Copper sulphate was employed incidentally in leprosy in the Congo by Oechino and Kernkamp (1933), who reported good results, especially as regards ulcers. The present authors have tried the drug in different forms of leprosy. They employed ammoniacal copper sulphate in 2 per cent solution, giving it intravenously in doses of from 3 to 10 cc., twice a week. The total doses given varied from 3 to 5 gm. of the crystalized drug, over a period of several months. The results were negative. —A. DUBOIS

DUBOIS, A. and DEGOTTE, I. La réaction de Mitsuda dans la lèpre. [Mitsuda reaction in leprosy.] Bull. Soc. Path. exot. 27 (1934) 802.

The results have been in accord with the findings of Hayashi. Of 171 lepers, 122 had few or no bacilli; of these only 1 gave a negative reaction. Of 47 with many bacilli, 31 gave negative reactions. Of 12 healthy people, 1 gave a negative reaction; this was a child. The authors conclude that the Mitsuda reaction demonstrates a great difference in the "terrain" in the two forms of leprosy. As regards diagnostic value, the test is not useful; its significance in prognosis has not been studied. —A. DUBOIS

DUBOIS, A., WESTERLINCK, H. and DEGOTTE, J. Essais thérapeutiques dans la lèpre. Le bleu de méthylène. [Therapeutic experiments in leprosy: methylene blue.] Bull. Soc. Path. exot. 28 (1935) 63.

The authors have tried the treatment advocated by Montel in 15 cases. Solutions of 1, 2 and 4 per cent concentration were given intravenously. The maximal dose was 0.40 gm.; usually less was given. The total doses varied from 3 to 6 gm., over several months. Results were nil. —A. DUBOIS

DEMANEZ, M.-L. Recherches sur la lèpre murine et le bacille Duval 514. [Studies on rat leprosy and the Duval bacillus No. 514.] Ann. Soc. Belge Méd. trop. 15 (1935) 31.

Aquarium fish, fed on rat leproma for several months, did not show bacilli in the organs. Lice from a rat infected with the Stefansky bacillus, wandering freely on a healthy rat, did not infect the latter. This observation extended over a period of six months, on a single rat. With simultaneous injections of an acetone extract of the tubercle bacillus and the Stefansky bacillus (10 injections) the author succeeded in obtaining a local lesion with the latter in a rabbit, without generalization. The bacilli from the lesion were pathogenic to the rat. The author also tried to inoculate rabbits and guinea pigs with the

Duval bacillus No. 514. The rabbit was the more receptive, showing a local nodular lesion. Simultaneous injections of acetone extract of the Hansen bacillus did not lower the resistance, but rather increased it; it seems that a similar extract of the Duval organism had a slight lowering influence on the resistance of the animal.

—A. DUBOIS

LEFROU, J. and DES ESSARTS, J. Q. Le probleme de la lèpre tuberculoïde. [The problem of tuberculoïd leprosy.] Bull. Soc. Path. exot. 28 (1935) 301.

Clinically, tuberculoïd leprosy, as the authors have observed it in Guadeloupe, appears in the form of dyschromic (achromic or hyperchromic) macules, annular macules and lichenoid macules. Bacilli are rarely found in these lesions. Disturbances of sensibility usually exist, but not always. The condition consists of a special histological reaction which is not absolutely specific. Syphilis, lymphogranulomatosis, acid-fast bacilli and foreign bodies may cause analogous nodules; the authors have described the differences between the tuberculous nodule and the tuberculoïd nodule of leprosy. This latter lesion is most often seen in young patients. It is probably an intermediate form (*une forme de passage*) from the primary perivascular infiltration toward the leproma, or on the other hand toward cicatricial sclerosis. As for the presence of an "inframicrobe," no decision can be made as yet; it is necessary to observe the evolution of this form of leprosy. For this form the authors prefer the designation "*lèpre à type tuberculoïde*."

—ET. BURNET

MOISER, B. Ngomahuru Leprosy Hospital. Annual report for the year 1933. Lep. Rev. 5 (1934) 117.

Continued good results among some 300 patients are reported from the use mainly of iodized esters given intramuscularly in large doses. The cauterizing action of local applications to nodules and infiltrations is also of value and is appreciated by the patients. Exercise and occupation are most important. After 25 years of tropical experience the author is convinced that the results now obtained are far better than formerly seen. Almost all early cases are easily curable, and sometimes the results are spectacular, all symptoms clearing up completely in six months. Some of the worst nodular cases have shown remarkable improvement, so all should be treated as they have a feeling of well-being, and few cases remain stationary or become worse. An analysis of 722 cases showed 271 discharged as "arrested" after four quarterly negative bacteriological examinations; of these 6 have been readmitted. Of 98 N1 (early nerve cases) 95 per cent have been or will be discharged, or if C1 (early cutaneous) ones are also included "it can be said that over 90 per cent will be (arrested), and called 'cured' if we do not quibble about the word." Cutaneous cases were much less common than nerve ones. In all but very advanced N3 and C3 cases improvement has been seen. Moiser emphasizes the greater value of examining contacts, as compared with general surveys, for success in the detection of early cases.

—L. ROGERS

HAY, J. N. Leprosy in the Republic of Paraguay. Lep. Rev. 5 (1934) 145.

This brief note records that in the population of one million in Paraguay there are estimated to be between 2,000 and 4,500 cases of leprosy, and that the

disease is believed to be spreading. Some 2,500 acres of good agricultural land have been taken up for a colony near the railway line. The patients will be attracted by persuasion rather than be brought by force, preference being given to open cases. Provisions are being made for modern treatment, research, and training students and others. The policy includes segregation of open cases, and early diagnosis and treatment, with examination of all contacts every six months over a period of five years.

—L. ROGERS

LEGGATE, J. Bonney's blue solution in the treatment of leprosy. *Lep. Rev.* 5 (1934) 161.

This is a brief report on the effects of spraying open lesions, and injecting intramuscularly, intravenously and intradermally, advanced C3 cases of leprosy with a solution of brilliant green and crystal violet each 0.5 gm., absolute alcohol 25 cc. and aqua distilata to 2,500 cc. The sores ceased to suppurate and started healing in a few days, and striking general improvement was noted, including laryngeal, throat and nose conditions. The author states that he had met with no case which had not done better on the dye than on iodized esters, and thinks that the new method is worthy of extended trial. The doses were gradually increased from 3 to 5 cc. up to 10 to 12 cc.

—L. ROGERS

WILSON, R. M. A review of the work at Soonchun Leprosy Settlement, and notes on the leprosy situation in Korea. *Lep. Rev.* 5 (1934) 166.

Diagnosis is discussed, and the value of local anesthesia and thickening of nerves in early cases is stressed. In treatment the author used biweekly intramuscular injections of hydnocarpus oil, obtained directly from Siam. It is given in 5 to 7 cc. doses. This he finds to be the most satisfactory and the cheapest method: it is almost painless and produces very distinct improvement in three months. In early cases marked improvement is thus obtained in 70 to 80 per cent. In the past year 82 patients were returned to their homes, and many more could have been sent out if the villagers did not fear them. In arrested cases vasectomy has been done and marriage in the colony allowed. He remarks that humidity has much to do with the incidence of leprosy; most of the 20,000 cases in Korea are in the southern half of the country, and only a very few north of Seoul. Pellagra is a frequent complication in the spring.—L. ROGERS

LAMPE, P. H. J. General light treatment of leprosy. *Lep. Rev.* 5 (1934) 180.

The writer reports on the use in Netherlands India, by Dr. D. Mulder, of mass general exposure of the bodies of leprosy patients to weak, diffused ultra-violet light for 8 to 10 hours a day, continued for at least three years. It was thought that the natural powers of defence would be stimulated by light, and the exposures were given daily for series of six days with intervals of 10 to 14 days. The conclusion come to by Lampe after an inquiry into Mulder's results is that "it cannot be determined that the method possesses scientific value or practical usefulness." More carefully controlled trials are to be made.

—L. ROGERS

RAO, G. R. Studies on the therapeutic efficacy of certain dyes in leprosy. *Lep. Rev.* 6 (1935) 4.

A trial was made of brilliant green trypan blue and Bonney's blue in twenty cases of leprosy. No material effects were observed either on the symptoms and course of the disease or on the lepra bacilli in the tissues. —L. ROGERS

MITSUDA, K. Curability and relapse in leprosy. *Lep. Rev.* 6 (1935) 15.

This experienced worker records that in Japan leprosy usually advances from the macular type to the more serious neural stage, and some years later it passes into the cutaneous, nodular type. To decide on the curability of the neural type he thinks 100 cases should be observed for 10 to 20 years, and such data are not yet available. With regard to the cutaneous type, Dr. Y. Hayashi studied the question for seventeen years in the Zensei Hospital with 662 cutaneous cases, among whom 128 had at one time been considered in a stage of cure, but the average years of freedom from the disease was 6.5 years and then relapse followed. "These statistics were compiled from data concerning relapsed cases, therefore it is impossible to say that every case takes this course." [It must be remembered that compulsory segregation is in force in Japan so very few cases are likely to obtain prolonged skilled treatment in an early stage.] —L. ROGERS

COCHRANE, R. G. Leprosy in the West Indies. *Lep. Rev.* 6 (1935) 65.

This paper deals with the incidence of the disease in Jamaica and in Barbados. In Jamaica the number of pauper and indigent lepers isolated under the law has remained about 120 with an increasing population, so he thinks the disease is diminishing. The law may require modification, and endemic foci should be sought for and any cases found dealt with in colonies, with land to cultivate, instead of in the present rather prison-like institution. Barbados has compulsory segregation, but the numbers in isolation have decreased during the last decade from 173 to 75. The asylum here also requires to be provided with land. Surveys are needed, as the distribution of the disease appears to be patchy, and if the foci could be found and dealt with the disappearance of the disease from the island would be hastened. —L. ROGERS

DOW, D. P. and NARAYAN, J. S. Treatment of nerve reaction. *Lep. Rev.* 6 (1935) 79.

The writers find the treatment of nerve reactions in their Jamaican cases difficult, but intradermal injections of hydnocarpus oil or its esters were more effective in relieving the pain and tenderness of such reactions than other drugs. Diathermy is contraindicated in acute nerve reaction. —L. ROGERS

BROWN, J. A. K. The Leprosy Colony, Uzuakoli, S. Nigeria. Second Annual Report, March 31st, 1934. *Lep. Rev.* 6 (1935) 92.

During the year the inmates increased from 390 to 436, of whom only 65, or 15 per cent, were early; 235 were late able-bodied, and the remaining 136 advanced disabled lepers, 38 of whom died. Sixteen were discharged as quiescent or arrested and noninfectious. For treatment, intramuscular injections of alepol or of equal parts of hydnocarpus oil and its ester were given, and iodized esters

were used intradermally in some cases. The addition of vitamin B to the diet was tried, with a definite bodily response in some. Uninfected children are now removed from their parents and sent to relatives, or looked after in a special home, with artificial feeding by healthy nurses. Cultivation of food supplies is encouraged and 80 of the patients will thus become self-supporting.—L. ROGERS

HOLLENBECK, H. S. Leprosy in Angola. *Trans. Roy. Soc. Trop. Med. and Hyg.* 28 (1935) 655.

In the province of Angola, Portuguese West Africa, leprosy is widespread and is said to have increased during recent years, because the people have become impoverished through the prevalence of partial famine conditions resulting from several years of scanty rainfall. Since 1925 small colonies and temporary camps have been started with missionary help, and free chaulmoogra oil treatment is supplied. The admissions have increased following striking success from the first. All the cases treated showed marked improvement in a few months, and after 18 months those in the early stages were discharged symptom-free. The nodular cases have responded about as well as the nerve ones, and the treatment is so popular that it is considered that only sufficient funds are needed to bring a very large proportion of the leper population under treatment. —L. ROGERS

CHIYUTO, S. Clinical relation of the early macules in children of lepers and the leprotic skin lesions in positive lepers. *Mo. Bull., Bu. Health (Philippine)* 13 (1933) 347.

The author compared the location and extension of the hazy depigmented macule in 40 children of leprosy parents with the advanced skin manifestations of 40 positive lepers. The conclusion is arrived at that "the early leprotic changes in children of lepers are replicas of the skin lesions of positive lepers, and that the contention that leprosy infection is contracted in infancy but develops in adult life is again supported." —J. O. NOZASCO

CHIYUTO, S. Early leprotic changes in children and their bearing on the transmission and evolution of the disease. II. *Mo. Bull., Bu. Health (Philippine)* 14 (1934).

This is a continuation of clinical observations in 40 children born in Culion of leprosy parents [see abstracts, this *JOURNAL*, 3 (1934) 247]. The author believes that the initial lesions are multiple depigmented macules that appear in different parts of the body, although their progress may not be simultaneous. Some of the features observed were: groups of minute papulo-vascular eruptions in 42.5 per cent of the cases; small pinkish irregular areas of papule-like formations, rather erythematous, in 12.5 per cent; and minute, pale, lichenoid papules, varying from pin-point to bird-seed in size, follicular in distribution, in 20 per cent. As to the progress of the lesions since the previous report, 27.5 per cent remained stationary, 20 per cent advanced slightly, 35 per cent advanced moderately, and 17.5 per cent advanced markedly. In 22.5 per cent the skin manifestations have advanced to a typically leprosy nature, so that even without histological confirmation a diagnosis of leprosy could be established. For a better understanding of the grouping of clinical leprosy the author suggests that the term "clinical leprosy" be used temporarily, together with the adjectives "early"

or "advanced" depending on the tissue reaction. The hypothesis of Muir and the work of Lampe are commented upon critically. —J. O. NOLASCO

VELASCO, F. Frequency of leprosy among parents and children. Its bearing in the transmission and epidemiology of the disease. *Rev. Filipina Med. y Farm.* 25 (1934) 423.

The author has examined 27 families (42 parents and 80 children) in which there was leprosy. Seven parents were found bacteriologically positive, and 15 were clinical lepers. Both parents were examined in 15 families; in 13 one parent had leprosy, in one both had it, and in one both were healthy. In the other 12 families only one parent was examined; in 7 of these instances the mothers were clinical lepers, and in the remaining five the parent was healthy. The findings are believed to tend to show immunity of adults in spite of years of the intimate contact of marital life.

Of the 80 children examined 61, or 76.3 per cent, were leprosy; of these cases 47, or 77 per cent, were clinical lepers and 14, or 23 per cent, were positive lepers, from which it is concluded that children are highly susceptible. The results of the leprolin reaction are claimed to support this view. The incidence in children is highest when one or both of the parents are positive, next highest when the mother is a clinical leper (negative), less when the father is a clinical leper, and least when both parents are healthy. It is concluded that the clinical leper parents, though negative bacteriologically, probably carry an invisible or a nonacid-fast form of *Myc. leprae*, and that the rôle played by the clinical lepers, who are generally unrecognized and considered unimportant in the transmission of the disease, may be a very important factor in the leprosy problem.

—J. O. NOLASCO

NOLASCO, J. O. Local effects of injection of iodized wightiana ethyl esters and wightiana oil around nerve trunks. *Jour. Philippine Islands Med. Assoc.*, 14 (1934) 421.

Seven monkeys were injected with *Hydnocarpus wightiana* oil and its iodized ethyl esters, around the ulnar nerves above the bend of the elbow and in the cubital fossa, and were sacrificed at intervals of from one day to twelve and a half months. Histological examination of the nerves at different levels showed no demonstrable globules of the injected drug in the nerve trunks. They were only found in the loose perineural tissues and the external portions of the epineureum. However, the acute inflammatory reaction induced by the injected drug was found to extend into the nerve trunks in the form of slight diffuse sprinkling of eosinophiles, a few neutrophils, and collections of round cells, especially prominent around the larger blood vessels (*vasa vasorum*).—[AUTHOR'S ABSTRACT.]

MONSERRAT, C. Does chaulmoogra treatment influence the shifting of serologic findings in lepers as obtained by the Wassermann, Kahn, and Vernes reactions? *Philippine Jour. Sci.* 54 (1934) 343.

The sera of 84 lepers were examined by the Wassermann, Kahn and Vernes tests. No chaulmoogra had been given to 46 of them, 33 had received such treatment, and 5 had received, besides chaulmoogra, antitreponematous treatment. The disease was active in 69 cases, quiescent in 5, and 10 were "clinical"

cases. The author believes that the Vernes test behaves in leprosy more like the Kahn test. Of the 84 cases, 21.6 per cent were positive to the Vernes test, 21.4 per cent to the Kahn test and 39.2 per cent to the Wassermann test. Positive findings were more frequent among lepers with bacilli in the lesions (84 per cent) than among the negative cases (46.6 per cent). The exclusive and continuous administration of chaulmoogra may bring about a marked decrease of the positive serologic reactions, a change which is not always accompanied by marked improvement of the leprosy lesions. In the case of the Vernes test marked quantitative changes are easily demonstrated after a few injections of chaulmoogra, compared with the Wassermann and Kahn tests.—J. O. NOLASCO

LARGOSA, M., ALONSO, J. M., TIONG, J. O. and PARAS, A. Treatment of acute leprosy neuritis with iodized wightiana ethyl esters, with report of cases. *Jour. Philippine Islands Med. Assoc.* 15 (1935) 87.

Fourteen cases of leprosy neuritis were treated with iodized *Hydnocarpus wightiana* ethyl esters, 4 with dilester (ester of dilo oil, *Callophylum bigators*), and 1 with both preparations. The drugs were injected in and around the nerves affected, about 1 cc. at each puncture, making several punctures. The first of these drugs lessened the pain, and in most cases caused its disappearance, within an average of 10 days after the first injection. One to two injections of 2 to 4 cc. each, at an interval of one week, were sufficient. When the nerve is hit during the injection the pain is excruciating and the patient may faint. Pain upon injection with swelling may persist for the first 2 or 3 days. Increase in strength of the injected extremity, decrease in anesthesia and numbness, and straightening of contracted fingers (when these latter changes have been of short duration) were noted. With the dilo esters the pain recurred in all cases. The authors recommend associating the drug with some local anesthetic like benzocaine to control the pain on injection. —J. O. NOLASCO

BALIÑA, P. L. and BASOMBRÍO, G. [A case of leprosy cured 20 years ago.] *Rev. Argentina Dermat.* 18 (1934) 101.

The authors relate the history of a Spaniard, 53 years of age, who had symptoms of leprosy with anesthesia 20 years ago, having been diagnosed and treated by two competent dermatoleprologists. In a few years all symptoms disappeared, and at the time of the report the patient had only one round area of anesthesia affecting the territory of different nerves. The histamin test and the absence of sweat indicated that this was a sequel of leprosy. The left ulnar nerve was enlarged, but biopsy revealed neither histological alteration nor *Mycobacterium leprae*. They conclude that some cases of chronic leprosy infection, just as syphilis or paludism, can attain complete cure. [AUTHOR'S ABSTRACT]

PUNTE, J. J. and FIOL, H. Extirpación quirúrgica de las lesiones iniciales de la lepra. [Extirpation of solitary lepromatous lesions.] *Sem. Med.* 1 (1935) 117.

The extirpation of solitary lesions is recommended, when they are not situated in the face. The technique is very simple, by bistury and cicatrization "per primam." The results have been good, and there has been no relapse.

—G. BASOMBRÍO