

ABSTRACTS

Wound Healing, by **Paul Brand, F.R.C.S.**: New England Jl. of Med. (1956), 254, p. 64.

No properly controlled experimental study of wound healing in leprosy has yet been carried out. In this clinic, however, over 800 operations on the hands and feet of patients with leprosy have been performed, and the healing process has been followed with some care and attention. In the same clinic many orthopaedic and plastic reconstructions have been carried out on the hands of non-leprosy patients.

It has been my impression that although most wounds in leprosy patients heal normally, delay in union may result from a poor nutritional state, which is common in these patients. Also, anaesthesia of the wound area deprives the patient of normal protection. It is good practice, therefore, to leave the skin sutures in place for two or three extra days. Gross sepsis has occurred in only one case, although stitch abscesses and other superficial infections have been about as common as in the hands of non-leprosy patients.

Skin flaps and tubes have been transferred, the same rules as apply to healthy persons being used, and with at least as good results. Free grafts have taken with more regular success than in other cases. "Tendon suture and free tendon grafting have been performed in hundreds of cases and with more regular success than in any similar series that I have seen of traumatic or other injuries." This success is probably due in part to the fact that post-operative exercises are not inhibited by pain.

***Tropical Diseases Bulletin, Vol. 53, No. 1, January, 1956.**

On the Advantage of Using Diluted Lepromins, by **H. Floch**. Bull. Soc. Path. Exot. 1955, V. 48, No. 3, 367-71.

The author shows by means of a curve a diminution of about 17 per cent. of positivity by using in the Mitsuda test an antigen diluted 1/750 as compared with one diluted 1/20, but with a dilution of 1/1000 it was diminished by 40 per cent. On the other hand with diluted antigen (1/750) he obtained 90 per cent. of positivity in 46 tuberculoid type children, and 59 per cent. in 58 undifferentiated type children; whereas with the undiluted he obtained 93 per cent. and 43 per cent. in 43 tuberculoid and 85 undifferentiated respectively. Using the diluted antigen (1/750) there were found 78 per cent. of conversions of negative to positive Mitsuda reactions after intradermal inoculation of BCG, whereas in Brazil they obtained 100 per cent. of conversions using massive oral doses of BCG and testing with undiluted lepromin antigen. The conclusion is to recommend, chiefly with a view to conserving an antigen difficult to obtain, the use of 2 dilutions: one 1/150 and the other 1/750.

***Tropical Diseases Bulletin, Vol. 53, No. 2, February, 1956.**

Radiological Appearances of Lesions of the Hands seen in Leprosy Patients in the Congo, by **J. Chardome** and **M. Lechat**. Ann. Soc. Belge de Méd. Trop. 1955, June 30, No. 3, 267-78.

The hands of 126 patients in the Yonda leprosarium were radiographed, and the lesions found are described in the text and by means of 9 photographs. The bone changes were: resorption especially at the ends of the fingers and not different from those found in other neurotrophic troubles such as psoriasis, syringomyelia, Charcot's disease and Raynaud's disease; decalcification and osteoporosis present in 28 cases; osteitis was rare and was considered to be the result of injuries and other infections; cavities in the carpus were found in 17 cases, and these were not confined, as other authors had found, to the lepromatous type; blocking of the nutrient canals especially when there was resorption of the terminal phalanx; changes in the interphalangeal joints; and changes in sesamoid bones of the thumb. An attempt is made to classify the frequency of the lesions found according to the type and the duration of the disease. (There is no discussion of the mechanism of the bone changes.)

***Tropical Diseases Bulletin, Vol. 53, No. 3, March, 1956.**

Isoniazid in Leprosy, by R. F. R. Scragg. Trans. Roy. Soc. Trop. Med. & Hyg. 1955, Nov., V. 49, No. 6, 548-54 [11 refs.].

Five lepromatous type patients and 1 tuberculoid, who had responded poorly to sulphones or had suffered from repeated reactions under sulphone treatment, were placed on isoniazid treatment alone for 17 to 26 months. The daily dosage ranged from 3.9 mg/kg. to 9 mg/kg. of body weight. In 4 of the 5 lepromatous cases there was clinical improvement, but none in the tuberculoid. There was an improvement in the bacteriological findings of the 5 lepromatous cases, the mean index diminishing from 6.4 to 0.5. Two of the patients developed lepra reactions during treatment, and 2 of them had severe neuritis. The results obtained differ from those of other workers who have noted no improvement. The author attributes this to the larger doses used. (As there were no controls there is nothing to indicate to what extent the good results were attributable to delayed action of the sulphones given previously.)

***Tropical Diseases Bulletin, Vol. 53, No. 5, May, 1956.**

The Leprosy Problem in Brazil, by H. C. de Souza-Araujo. Mem. Inst. Oswaldo Cruz, 1954, June v. 52, No. 2, 427-41, 22 figs. on 7 plates.

The author first described leprosy in Brazil in 1925, when efforts at control were first being initiated. There were then 1,963 cases in primitive leprosaria, 9,002 known cases, and a total estimate of 24,000. From 1946 to 1950 there were 22,245 new patients recorded, of which 56.5 per cent. were open cases of leprosy. At the end of 1950 there were 60,623 known cases, 1.12 per thousand of the population. Of these there were 21,917 in the State of Sao Paulo, and 13,591 in Minas Gerais. There were in 1952 23,421 patients in leprosaria, of which 7,901 were in the State of Sao Paulo, and 5,465 in Minas Gerais. The total amount spent by the Union on leprosy in 1951 was the equivalent of U.S. \$1,800,000. There are also 29 preventoria for children of patients, housing in 1952 some 4,045 children. There are also 93 leprosy clinics. At least 200 dispensaries are needed for follow-up work, the treatment of closed cases, and after treatment of discharged patients. There are 4 centres for research and training. Many details of the incidence in the various States are given; in some of them leprosy is considered a very serious problem.

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***Tropical Diseases Bulletin, Vol. 53, No. 6, June, 1956.**

Hydnosulfone in the Treatment of Leprosy, by **Dharmendra and K. R. Chatterjee**. Leprosy in India, 1955, Vo. 27, No. 4, 230-33.

Hydnosulfone is a condensation product of hydnocarpic acid with DDS. It is a slightly yellowish powder with a molecular weight of 716, and a melting point of 122°C. It is insoluble in water and ether. It is similar to Chaulfone, a French preparation, but differs in retaining the original saturated group. It is well tolerated, does not produce any toxic effects, and does not break down into its component parts in the body when taken orally. It was found too irritant for intramuscular injection. In only 4 out of 26 patients treated was there a slight initial reduction in erythrocytes and haemoglobin. There was, after treatment varying from 30 to 100 weeks' duration, complete or almost complete clinical subsidence in 8 of the 18 lepromatous patients, 3 of them becoming bacteriologically negative. In 6 others there was considerable clinical and bacteriological improvement. In 7 tuberculoid cases there was subsidence of erythema and thickening. Most of the patients included in this trial had previously been treated without any, or lasting, effect. It is concluded that Hydno-sulfone is of definite value in the treatment of leprosy, particularly in patients who cannot tolerate, or do not make satisfactory progress with, some other drugs, such as DDS, isoniazid and thiosemicarbazone.

The Value of Vaccination with BCG in the Prophylaxis of Leprosy, by **V. Pardo-Castello, F. R. Tiant and R. Ibarra Pérez**. Bol. Soc. Cubana de Dermat. y Sifil. 1955, Sept. v. 12, No. 3, 144-53.

Twenty-two children with negative Mitsuda reactions were given 100 mgm. of BCG by mouth once a week for 3 weeks. Three weeks after the vaccination the Mitsuda reaction was positive in 9 and negative in 13. Of these 22 children, 15 were the children of These 15 were given another similar 3-week course of BCG. Three weeks after this revaccination the Mitsuda reaction had become positive in five who had been negative before; in four who had been positive or doubtful before the reaction had become negative; and in the other six cases the reaction remained the same.

It is acknowledged that these results are not as good as those obtained by some workers, though they correspond to those found

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by others. The authors still consider that BCG increases resistance to leprosy, and uphold its universal use where leprosy is endemic.

Regarding Sulphone Treatment of Leprosy, by **L. Swerts**. Ann. Soc.

Belge de Méd. Trop. 1955, Dec. 31, v. 35, No. 6, 785-800.

The author working at the Red Cross of the Congo anti-leprosy centre at Nepoko reviews the treatment of 2,500 tuberculoid cases of leprosy and 800 lepromatous cases over a period of 3 years. As regards the tuberculoid macules, these disappeared more or less completely in 90 per cent. But the thickened nerves were more difficult to assess as to their improvement, as the thickness might diminish without any corresponding improvement in sensation. There was, however, a gradual improvement in about 40 per cent. of cases over the 3 years. Much better results as regards function were obtained in patients with only a single tuberculoid lesion than in those with multiple lesions. With the lepromatous type there was 90 per cent. of definite improvement in the skin lesions, though the nerve lesions were little improved. The bacteriological findings became negative in 11.24 per cent., and very much reduced in 37.85 per cent. at the end of the 3 years.

Tests with Tuberculin and Lepromin in the Makoda Chiefdom

by **L. Swerts**. Ann. Soc. Belge de Méd. Trop. 1955, Dec. 31, v. 35, No. 6, 801-4, 1 chart.

Preliminary to BCG vaccination in the Makoda Chiefdom, tuberculin and lepromin tests were made of the population. For the Mantoux test a dilution of 1/1000 was used and readings made after 48 hours. Positive readings were with 10 to 20 mm. infiltration and upwards. For the lepromin an antigen was used composed of a suspension of 0.4 gm. of dried leproma per 100 cc. of saline. Positive reactions were when there was a nodule formed of over 4 mm., the reading being made after 3 weeks. The Mantoux and Mitsuda reactions are compared, and also males and females in each of these categories. The results are shown in curves. With the tuberculin the curve increases at first very slowly up to the 6-10 period, accelerates for the 10-15 period, then rises abruptly at 16-20. Up to 15 years the curve of the 2 sexes is practically the same, but after that the male curve rises more quickly than the female. They stop rising at 50 to 60 per cent at the age of 36 to 40 years, but the curve for the men rises higher than that for the women. The lepromin curves are quite different. There is not the initial latent period, and they rise much more abruptly, the 2 curves overlapping till a maximum is reached of 65 to 75 per cent. at the age of 16 to 20 years.

The two main differences between the tuberculin and the lepromin reactions are: (1) The absence with the lepromin of the initial latent period before the curve starts to rise, and (2) The more abrupt rise of the lepromin curve, so that it reaches the maximum earlier and at a higher percentage level. This is explained by a supposition that the people in this region are impregnated with leprosy at an earlier age than they are with tuberculosis. The fact that the lepromin reaction is converted earlier than the tuberculin does not support the idea that the conversion of the lepromin reaction is due to Koch's bacillus.

Induced Immunity in Leprosy, by **P. C. R. Pereira**, *et al.* Arquivos Mineiros de Leprologia, July, 1955, p. 172. (Authors' Summary.)

The authors, working as a team, established a plan of study and have vaccinated with the bacillus of Calmette and Guérin thousands of contacts and of other persons resident in leprotic areas. A clinical examination of the patients is made, the possibly infected cases separated and the others receive Mitsuda's antigen.

All the negative cases are treated with BCG and after a period of from 30 to 60 days are again treated with Mitsuda. The great majority (93.4 per cent) showed the Mitsuda change. The authors hope to keep these patients under constant observation during a period of from 5 to 10 years to determine whether they have really become immune to leprosy.

The authors make a large number of observations as regards the data obtained and suggest the continuation of the study of this interesting subject.

The experiments were begun more than 3 years ago (about 1953) and the paper is illustrated by various tables and graphs, showing the index of positive Mitsuda reaction before and after BCG.

Dr. de Souza Lima writes in the Memoirs of the Third Panamerican Conference on Leprology on the "*Pseudoexacerbation*" *Reactional State of Leprosy*.

The term "pseudo" is used because the reaction of this nature results not in an actual exacerbation of the disease, but in improvement and sometimes in complete clearing up. It occurs in patients of the lepromatous type under sulphone treatment, and yet it has the "clinical appearance of the reactional tuberculoid eruption." Histological examination of the lesions may reveal

tuberculoid and frankly lepromatous features side by side, and there may be a reactional tuberculoid histological picture without the corresponding clinical aspect. The lesions of the pseudo-exacerbation may replace those of the lepromatous type, mask them, or coexist with them. The aftercourse may be that of the reactional tuberculoid or that of the lepromatous type. The author describes two groups of patients. Group 1 consisted of 29 patients. The reaction appeared suddenly and without affecting the general condition, though in some there might be slight fever lesions might appear, and there might sometimes be severe neuritis followed by muscular atrophy. The duration was usually 3 to 6 months. There was complete clearing up of all the cases in this group although in 22 of them the disease had been more or less advanced. In the second group of 61 patients lepromatous and tuberculoid lesions coexisted, but in spite of this the pseudo-reaction was beneficial, leading to clearing up much more rapidly than usual, so that 44 could be transferred to outpatient clinics. In all but two cases the lepromin reaction remained negative, and in them it was only slightly positive.