

round rifle, ankle and boot, tying off on sole of boot; then encircles upper part of chest with one belt and hips with another, passing each one, when length permits, round the rifle first. Two field dressings are next applied, pads on wound as far apart as possible, short end of bandage to outer side, long end brought round under thigh, round the rifle, then over and round both thighs, being tied off to the short end, knot on rifle. Finally, pair of anklets buckled together placed round both legs just below knees and then the pull-through cord passed round them and tied to give the anklets a firm grip on the legs.

With acknowledgments to Dr. H. C. Harley who showed in a letter to the *Lancet* that the men's personal equipment could be effectively used for fixation of the rifle.

Current Literature.

J. AMER. M. ASSN. 1941, May 24, v. 116, No. 21, 2405-11. Diagnosis and Treatment of the Venereal Diseases.

This is one of a series of letters issued by the Committee on Medical Preparedness of the American Medical Association. It was prepared by the Sub-Committee on Venereal Diseases of the Committee on Chemotherapeutic and other Agents. It deals with gonorrhœa, syphilis, chancroid, L.i. and granuloma venereum, and is a miniature textbook on the subject, presumably for guidance of medical officers of the Services, though it deals with the above diseases in both sexes. As it is, itself, a very condensed summary of a very large subject, only a mere sketch of its contents can be given here, with some comments on points in which the recommended practice differs strongly from the British. In gonorrhœa it gives directions for diagnosis such as are found in good textbooks with due insistence on the necessity of laboratory aids. In treatment of males it advises no local measures except in cases resistant to sulphonamide therapy, and then the local treatment, even irrigation, is to be administered only by skilled technicians; for females no intravaginal treatment is recommended except in complications. Under chemotherapy it is stated that gonorrhœa may be treated on an ambulatory basis. [If this is to be the practice in dealing with the Services, it differs strongly from that in this country where men are kept in hospital until, in gonorrhœa, suitable tests have shown there is good reason for believing that the infection has been eradicated. Here it may be said that the British practice differs from the American recommendations for cases of syphilis in that our Service men are kept in hospital until outward signs have completely disappeared. It may be said for the British practice that it reduces to a minimum the numbers of Service men who are carriers of venereal infection mixing with the civilian population.] The dosage of sulphathiazole, the preferred remedy, or of sulphapyridine, the remedy re-

commended for sulphathiazole-resistant cases, is 3.0 grammes the first day (0.5 every three hours) and 2.0 grammes a day from the second to the ninth. If the discharge is still present on the fifth day, the treatment is to be switched over to sulphapyridine; if it persists on the ninth day, the patient is to be sent to hospital. [The dosage here is much milder but more prolonged than is at present favoured in the British Forces.]

The tests of cure are on usual lines except that instrumentation, sexual excitement and alcohol are barred. Local treatment of sulphonamide-resistant cases is detailed but nothing is said of examination to discover the locality of the focus responsible for holding up the cure. Blood tests to guard against coincidence of occult syphilis are recommended at least three to four months after the onset of the gonorrhœa. For syphilis the alternating continuous plan is recommended, bismuth subsalicylate, 0.2 gramme per dose, and mapharsen, 30 to 60 mgm. per dose, being the preferred remedies. The arsenical course is eight injections and the bismuth course ten; the two drugs are not to be given simultaneously except for overlap in passing from one remedy to the other at the end of a course. The total duration of the treatment does not seem to be stated, but absolute regularity is insisted upon during the first twelve months.

[Simple calculations will show that the treatment proposed for the U.S. Forces is much less intensive than that for the British, which is based on recommendations of the League of Nations' Committee on the subject. In the British Army the syphilitic patient receives in a year four courses of neoarsphenamine and bismuth, the two remedies being given simultaneously, the number of injections of each being ten, and the total amount per course approximately 5.8 grammes neoarsphenamine and 2.5 grammes bismuth metal, whatever compound of bismuth is chosen. Thus in a year under this scheme the patient receives approximately 23.2 grammes neoarsphenamine and 10.0 grammes bismuth metal. Under the U.S. scheme the patient is presumably to receive in a year thirty injections of bismuth subsalicylate, totalling 3.6 grammes bismuth metal, and twenty-four injections of mapharsen, totalling at most 1.4 grammes. The dosage of mapharsen is based on the assumption that therapeutically it is ten times as potent as neoarsphenamine, so that theoretically the 1.4 grammes just mentioned should correspond to 14 grammes neoarsphenamine. But there is good evidence that its potency is not so great as this. In a symposium on the massive arseno-therapy of early syphilis which has been under trial in New York for some years (reviewed in *Bulletin of Hygiene*, 1940, Vol. 16, 716) it was pointed out by Bruce Webster that the results with 4 grammes neoarsphenamine had been better than those with mapharsen in dosages lower than 1.2 grammes, and this was the total dosage to which mapharsen was stepped up as experience dictated. In an investigation to determine whether experimental yaws of rabbits would respond as well to treatment with neoarsphenamine and with mapharsen as did experimental syphilis, which was reported by Longley, Clausen and Tatum in *J. Pharm. & Exper. Therap.*, 1941, Vol. 71, 49 (*Bulletin of Hygiene*,

1941, Vol. 16), the tables show quite clearly that in yaws and in syphilis 3.5 mgm. mapharsen per kgm. rabbit achieved rather less than did twice this amount of nearsphenamine.

The inference from these investigations, which were not designed to compare mapharsen with nearsphenamine but do so more clearly than do any clinical trials in which the issue is obscured by the administration of bismuth, is that 1.4 grammes mapharsen given in accordance with the U.S. Schedule will not achieve as much as would 14 grammes nearsphenamine.] Careful directions are given for care of syphilis in other than the early stages, for tests of cure and progress, including examination of the C.S.F., for the prevention and treatment of reactions and for the recording of notes on case records. Directions are given on similar lines for the management of the other venereal diseases mentioned above.

J. W. HARRISON.

Reprinted from "Bulletin of Hygiene," Vol. 16, No. 10, 1941.

HOPKINS, J. W. **B.C.G. Vaccination in Montreal. Statistical Analysis of the Results of Research by Dr. J. A. Baudouin on B.C.G. Vaccination in Montreal.** *Amer. Rev. Tuberculosis.* 1941, May, v. 43, No. 5, 581-99.

B.C.G. vaccination has had little vogue in Britain. Partly because the incidence of tuberculosis on young children is relatively low (of the 25,176 deaths attributed to all forms of tuberculosis in 1938, 1,377 were at ages under five and of the 21,932 assigned to respiratory tuberculosis only 149), partly because the claims of Calmette and his disciples were extravagant and their statistical data grossly defective. But there was nothing biologically absurd in Calmette's argument, and room for further careful statistical analysis. The present paper is an example of such careful work. The data are not numerous, but cover some thousands of years of life, and are derived from the observation of more than two thousand children. Pains have evidently been taken to secure real comparability of controls and vaccinated children and precision of diagnosis. The result is to make it probable that in respect of both mortality and morbidity, the vaccinated children had a significant advantage over the controls; mortality rates and morbidity rates were uniformly lower; for instance, taking active tuberculosis, the morbidity rate on the controls (ages 0-5) was 120 per 1,000, on the vaccinated 31. Mortality rates were 54 per 1,000 and 19 per 1,000 respectively. Mortality rates for causes other than tuberculosis showed no significant difference between the groups.

M. GREENWOOD.

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BOYD (Mark F.). **Observations on Naturally and Artificially Induced Quartan Malaria.**—*Amer. Jl. Trop. Med.* 1940. Nov. Vol. 20. No. 6. pp 749-798. With 5 figs.

This paper contains a very comprehensive analysis of observations made on forty-three patients subjected to malaria therapy with *P. malariae*. Three strains of the parasite were used; they came from widely separated localities

but no observations were made to determine their antigenic relationship. In five patients infection was naturally induced; in forty-three patients trophozoites were inoculated intravenously. In naturally inoculated cases the incubation period varied between four and five weeks; parasites were detected in the blood from three to twelve days before the clinical onset. In artificially induced infections the mean interval between inoculation and the first detection of parasites was 9.5 days, and between inoculation and the clinical onset 19.2 days. The mean duration of naturally induced attacks, regardless of therapeutic interference, was 132 days, and of artificially induced attacks 92 days. Early paroxysms were always simple quartan in type; double quartans and quotidian fevers were only seen in advanced stages of the attack. An onset with remittent fever was rarely seen. Paroxysms after artificial inoculation show greater complexity and irregularity than those following natural infections. The parasite densities observed were considerably lower than those commonly observed in *P. falciparum* and *P. vivax* infections. In one very exceptional case of the series, however, a parasite density as high as 114,000 per c.mm. was observed on one occasion; this patient died, apparently of malaria, in spite of heavy doses of quinine. In the two other cases that terminated fatally malaria does not appear to have been responsible for death.

But little justice can be done to this exhaustive study within the scope of a summary. N. W.

Reprinted from the "Tropical Diseases Bulletin," Vol. 38, No. 7, 1941.

Reviews.

DENTAL SURGERY AND PATHOLOGY, Eighth Edition. By J. F. Colyer and E. Sprawson. London: Longmans, Green and Co. 1942. Pp. xvi + 1067. Price 45s.

So extensive is the field of dental surgery and pathology to-day, so often does it overlap that of general medicine and surgery, so numerous and complex are the operative procedures, that it is increasingly difficult adequately to survey the subject within the confines of one volume. For the dental student this eighth edition of a standard work is a highly satisfactory condensation giving "something on everything," information on up-to-date advances and researches and an authoritative answer to any question likely to be asked in an examination.

The sub-divisions follow the well-conceived plan of the extensively revised previous edition (1938) with further revisions, additions and illustrations. The clarity of exposition, well-spaced paragraphs with bold type