

shirt and his under-vest, and a wound about one and a half inches in depth in the fleshy part of his left shoulder. His clothes at the site of the hole must have been burnt up, as there were no fragments of clothing in the wound, which was dressed daily and was healed in thirty days. It is obvious what serious injury might have been inflicted if the rifle had been fired over a more important region, such as the face.

TREATMENT OF SYPHILIS BY INTRAVENOUS INJECTION.

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THE incidence, prophylaxis, and treatment of venereal disease possesses a perennial interest for all Army medical officers. When we consider that a few years ago the admission rate in India reached the appalling figure of over 500 per 1,000, and that it is still enormously high, it is no exaggeration to say that anything which may even in small measure tend to diminish this inefficiency is of the highest importance. From time to time efforts have been made to remedy matters, often in face of adverse influences, apathy, scepticism, and the like, and of late years a general awakening, a "revival," so to speak, has been in evidence, a determination to stamp out, or at any rate greatly diminish, this scourge, which is at once a disgrace to our Army, a slur upon the professional capacity of its medical officers, and a danger to the country at large. I venture to think, therefore, that the following notes of personal experience of the treatment of syphilis by the intravenous injection of mercury, done some time ago in India, may not only prove of interest to readers of the Journal, but encourage others to give a further and more extended trial to this method.

Bacelli, in Italy, in 1893, was the first to describe this treatment, and subsequently, in 1896, Mr. Ernest Lane read a paper on the subject before the International Congress of Dermatology in London. He wrote so favourably on the method that I determined to try it on the first opportunity. The *modus operandi* was that recommended by Mr. Ernest Lane, and is as follows:—

A 1 per cent. solution of cyanide of mercury is used, and 10 to 40 minims, according to the severity of the case, is injected into one of the superficial veins at the bend of the elbow, usually the median basilic, the vein being rendered prominent by a bandage applied round the arm. Strict antiseptic precautions are, of course, essential; the syringe should be thoroughly sterilised, the needles must be very fine and sharp, and air rigidly excluded. The syringe having been filled with the solution, the needle is entered obliquely into the distended vein, the bandage removed, and the contents slowly injected. If the needles are fine and skilfully introduced there is little or no pain, but if the vein is missed and the

solution forced into the surrounding tissue, considerable discomfort and irritation follow. With a very little practice, however, one very soon learns to penetrate the vessel properly, and the feeling of the needle moving freely in its lumen, as described by Mr. Lane, is very characteristic. If the veins are small and the needle introduced too perpendicularly, the result may be complete transfixation and injection of the solution into the tissues posteriorly. A few other points of difficulty that may be met with in injection are : obscuration of the veins when the skin is thick and dark coloured, tattooing, abnormal smallness of superficial veins, &c.

In no case did I observe the slightest sign of phlebitis, but on one or two occasions, when the vein was missed, there was temporary local swelling and discolouration, while in another an abscess followed, due probably to want of antiseptic precautions. In the majority of cases I used 20 minims injected daily until active manifestations had disappeared, and thereafter the same dose was given bi-weekly, and subsequently weekly.

In 50 cases I gave altogether 1,600 injections, the greatest number in any one case being 80, nearly all of which were made into the *same vein at the same site*.

The results in the 50 cases were as follows : 36 were very satisfactory, 3 were improved, 2 were invalided, and in 9 treatment was suspended.

Of these 36 cases returned *very satisfactory*, almost all had no signs of syphilis when examined some months after commencement of the treatment, were performing all military duties and attending weekly or fortnightly for injection. In the 3 cases shown *improved* all skin eruptions had disappeared, but some trouble was experienced in getting rid of obstinate throat lesions. Of the 2 cases *invalided*, one was for debility after all syphilitic manifestations had gone, and the other having suffered from repeated relapses, change to England was considered necessary. Of the 9 cases in which *treatment was suspended*, 4 were for difficulty in finding superficial veins, in 2 treatment seemed to have no effect, in 1 the veins, although prominent and superficial, were tortuous, with numerous valves rendering injection difficult, 1 contracted dysentery, and 1 malarial fever.

Although I have only given the results in 50 cases, I may add that I have treated many more by this method with excellent results, but no detailed notes were kept.

The *advantages* of the intravenous method are, I think :—

It is almost painless ; the dose can be easily regulated ; the absorption is certain ; the therapeutic effect is obtained with the greatest possible rapidity, a point of some value when dealing with syphilis of important organs, or unsightly syphilides of the face ; the digestive system is not interfered with ; it is specially suitable for outdoor practice ; it is often successful when other methods fail.

The *disadvantages* are stated to be the risk of phlebitis, thrombosis and embolism. I have never met with any of these in the cases I have done. A certain number of patients, however, object to this method on account of the supposed risk and pain. The main drawback I experienced was the difficulty in sometimes finding superficial veins.

While convinced of the efficiency of this method of treating syphilis, I do not recommend it as a routine one. I think it is specially valuable in those cases of obstinate skin eruptions, notably so in disfiguring syphilides of the face, which it is desirable to get rid of quickly. In those chronic cases of ulceration of the tonsils and fauces the results were somewhat disappointing, and sometimes negative until potassium iodide was freely administered.

These cases were treated in India in the plains, during the hot weather, under unfavourable climatic conditions. In a better environment—climatic, hygienic, dietetic—there is every reason to believe that the results would be more favourable. I would submit, however, that they are sufficiently encouraging to warrant a more extended trial, for it seems clear enough, *ceteris paribus*, that the direct introduction of the specific remedy into the circulation possesses certain inherent advantages.

A CASE OF EARLY GRAVES' DISEASE WITH APHONIA.

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THIS patient, aged 20, was admitted to the Queen Alexandra Military Hospital, Millbank, on March 22nd, 1906, suffering from aphonia. He stated that, after feeling hoarse for some days, he suddenly lost his voice while on sentry duty three nights previously.

On admission he was found to be unable to speak above a whisper, he phonated slightly on coughing, and on laryngoscopic examination bilateral adductor paralysis was present; he presented no other abnormal physical sign. Three weeks after admission he found his neck was getting larger, and on examination slight enlargement of the thyroid gland was noticed; about this time he began to get out of breath on exertion. His condition on August 1st was as follows: Still unable to speak above a whisper, uniform enlargement of the thyroid gland, which felt soft and was difficult to define accurately. He had a fine tremor of both hands, and stated that he frequently felt very hot but was unable to perspire. There were no abnormal ocular signs or symptoms; no cardiac bruit.

From July 25th to August 6th his morning and evening pulse rates varied from 112 to 72, the average morning and evening rates both being 88; on running the length of the ward his pulse rate rose to 130. During this period patient had a variety of treatment, chiefly directed towards curing his aphonia, *e.g.*, high frequency for nine weeks, galvanism,