drained by the infected gland, preferably the right and left inguinal region. I have not seen good results by injecting it into remote areas.

5. In phagedenic ulceration complicating venereal sores this serum would appear not only to neutralise the toxins in the blood, but also to bring about a healthy condition of the ulcer.

A CASE OF SEPTICÆMIA TREATED WITH ANTISTREPTOCOCCUS SERUM: DEATH.

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THE following case, when first seen, merely presented the features of acute lymphangitis, such a case as often gets rapidly well under the treatment adopted, and gave no warning of the terrible course it was doomed to run.

The drainage of the patient's house was in a decidedly defective condition, and had been condemned by the district sanitary inspector; this fact may have some bearing on the subsequent development of the case.

On July 18th W. H. consulted me, giving the following history: He was inspecting some tea chests which had been damaged by fire and water at the docks on July 13th, when in passing down a dark passage he struck his leg against a projecting chest and fell heavily forward. From that time to July 18th, when I saw him, he had had pain in the leg and sundry constitutional symptoms—headaches, etc.—which he ascribed to his liver; beyond this he did not complain of anything. He had gone about his business as usual, although not feeling quite well.

I found in the lower third of the right leg, over the prominent ridge of the tibia, an extensive ecchymosis with inflamed lymphatics extending thence to the groin; there were no enlarged glands in the groin. In the middle third of the shin, immediately above the bruise, there was an old wound, the result of an injury inflicted some twenty years earlier, which had never healed. The whole of the anterior aspect of the limb was swollen, hot, red, and tender; at one spot near the old wound doubtful fluctuation existed, and at that site I made a deep incision, but evacuated no pus. The wound was dressed antiseptically, the inflamed lymphatics painted with glycerinum belladonnæ (1 in 2), and the entire limb bandaged.

On the morning of July 19th there was less swelling and redness of the leg. The temperature was 102° F.; pulse 80, regular, and of good volume. At 8 P.M. the temperature had risen to 105.4°, and the patient became delirious. He was ordered phenacetin gr. iv, caffeine citrate gr. j, in a powder every four hours; at midnight the temperature was 104°, and the patient was much quieter.

On July 20th he was delirious all day, talking incessantly, but had occasional lucid intervals. The temperature rose again in the morning to 105°; he was then ordered cachets containing quinine sulph. gr. iv every four hours; by 10 P.M. the temperature had fallen to 103.6°.

On July 21st the general condition of the patient remained unchanged; free incisions were made in several places in the leg; a quantity of serous fluid was discharged through these incisions, but no pus found. His mental condition improved slightly, and the temperature fell to 99.8° at 10 P.M. During the two succeeding days the leg was dressed with boracic fomentation every four hours. Several more incisions were made in the leg, wherever fresh patches of redness appeared. The quinine treatment was continued throughout, and fluid nourishment (about 80 ounces) and brandy 6 ounces administered in the twenty-four hours. The delirium continued unabated during these days. The temperature fluctuated between 102° and 97.4°.

On July 24th I obtained the consent, previously refused, of the patient's wife to treatment by injections of antistreptococcus serum. At 11.15 A.M. I injected 10 c.cm. of the serum with the strictest antiseptic precautions. The temperature at that time was 99.2°, and fell to 99° subsequently; pulse 100, respirations 20. No perceptible result followed this injection, and the same quantity of serum was again injected at 3.30 P.M., and again at 7.30. At 10 P.M. the temperature had risen to 101° F.; 10 c.cm. of serum were injected at 11.30 P.M., and during the night the temperature fell to 98.4° F.

On July 25th, at 11.30 A.M., I injected 10 c.cm. of serum, making the fifth dose, and exhausting all the serum I had been able to procure on the previous day (Sunday). The temperature rose again to 99.4° at 2 P.M., and the patient was steadily becoming weaker. The messenger sent for a further supply of serum returned with serum supplied in hermetically sealed tubes from the Institut Pasteur, which I found it impossible to open without destroying the serum. I then sent to Messrs. Allen and Hanbury, who at some inconvenience to themselves supplied me with 6 phials, but these arrived too late. During the afternoon the patient was seen by Mr. Charles Ryall, and it was then found that gangrene had set in in the right foot. At 9 P.M. the patient became collapsed, and although strychnine was injected and everything done to restore him, he sank and died at 9.40 P.M.

I do not think it possible to emphasise too strongly the proposition already often enunciated, that if the serum treatment of these and similar cases is to be of any avail, that treatment must be commenced as soon as a reasonable diagnosis can be made. Delay reads disaster. Furthermore, the initial dose should be a large one, probably 20 c.cm.

May I be allowed to add that it is a pity that the Institut Pasteur does not issue simple directions in English as to the mode of opening its hermetically sealed glass tubes containing the dried serum, and the dissolving of the same, in

place of the French literature in which the bottles are now wrapped? It is very annoying to find that you have to wade through a quantity of French literature of a technical character before discovering that the phial is to be "held in a flame" in order to open it, and when so "held in a flame" it is still more annoying to discover that you have ruined the serum by the application of heat sufficient to break the bottle.

NOTE ON THE TREATMENT OF ARTHRITIS BY MEANS OF HOT AIR BATHS.*

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ATTENTION has lately been drawn to the treatment of chronic joint affections by means of hot air locally applied. That there is nothing new in the application of dry heat to such cases the old-fashioned method of easing pain by means of bran or salt bags heated in the oven and placed next to the affected part abundantly testifies. It has been maintained, however, that special benefit accrues from the application of superheated dry air by means of an apparatus especially contrived and patented. Some twelve months ago a case came under my care which seemed particularly suitable for such treatment. I determined to try the effect of hot air given without special apparatus beyond what may be possessed by any hospital, or could be procured for use in any house. This case was shown to the Pathological and Clinical Section of this Branch at the end of last session. The result was so satisfactory that during the last six months I have been making some observations on this method of treatment, and this short note is the result of my experiences up to the present time.

If the drug treatment of chronic joint cases were satisfactory there would not be a call for further methods, but I think all will admit that it leaves much to be desired. Acute rheumatism usually, if not always, succumbs to sodium salicylate. It is not so with subacute attacks. In fact I have come to the conclusion that in some forms of subacute rheumatism salicylate, if it does not make the patient worse does very little good.

We generally look upon acute rheumatic fever as a serious condition, and regard subacute "rheumatics" as an altogether lighter ailment. I am not sure, however, that we are justified in taking this view, when it is considered that an acute ailment once weathered without sequelæ is not so serious a matter as a chronic one continually recurring. It is true that a subacute case of rheumatism may never be actually so ill as an acute one at its height; but, on the other hand, it may never get really cured. If by the time the patient has reached middle life the hands or the feet are in any way crippled it is difficult for him to support a family or even to gain a livelihood. It was with a view to improve the condition of this class of case that the hot air bath was tried.

DESCRIPTION OF THE APPARATUS AND METHOD.

The apparatus employed is that in common use in hospitals for the administration of hot-air baths in cases where profuse diaphoresis is indicated. It is used in the following manner: The patient lies in bed between blankets. The tent which covers him is made of two large cradles, covered first with blankets, then with macintosh sheets, and then again with blankets. The coverings must be arranged at the top of the tent in such a manner that a small opening or chimney can be made to let out the hot air when it has become saturated with moisture. I have not found it necessary to make any counteropening, as the entering air finds plenty of inlet between the blankets and the chimney or flue of the heating apparatus. If the packing be too tight, it is obvious a counteropening of some kind must be made. There should be plenty of spare blankets near the head, in order that it may be wrapped in folds round the patient's neck and thus made as airtight as possible. The cradles that I use at the infirmary are made of wire netting on a metal frame; they are cheap and cannot take fire. The flue attached to

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