Operation.

A mass of adhesions were found about the pylorus, preventing any investigation of this region. The gastro-enterostomy stoma was in good order, with no thickening or sign of ulceration; the efferent loop was dilated and hypertrophied, and about three inches from the stoma the jejunum and transverse colon were intimately adherent, this evidently being the site of the fistula, a fact which was confirmed by opening the jejunum distal to the adherent portion and introducing a finger, which passed through the fistula into the colon. Separation of the two pieces of gut, which were greatly thickened at the site of apposition, was carried out with some difficulty, and after being effected the hard edges of the old ulcerated areas were excised, and the openings into the two pieces of gut were closed by means of two layers of catgut stitches, without noticeable lessening of the lumen in either case. As an additional precaution an omental graft was applied to each suture line. The abdomen was then closed.

His condition was precarious for forty-eight hours, after which time he made a rapid recovery; the vomiting ceased immediately after operation, and the diarrhoea, although troublesome for about a fortnight, eventually entirely subsided. He was kept in bed for a month, during which time he gained weight steadily, and on discharge on June 20th weighed 7 st. 6 lb., a gain of 15 lb. since admission. He returned to the care of Dr. Shephard, of Sheerness, who reported that in August, 1921, his weight was 9 st. 10 lb., and that his abdominal condition was quite satisfactory, as it is now in January, 1922.

Conclusions.

1. It seems probable in this case that the causative factor for ulcer formation was some abnormality of the gastric juice.
2. The gastro-enterostomy performed in 1914 allowed the original ulcer to heal, but a persistence of, or a recrudescence of, the abnormality of the gastric juice caused the formation of a second ulcer.
3. The second ulcer healed after complete diversion of the stream of gastric contents by division of the pylorus; but
4. As a result of this proceeding, and in spite of dietetic and medical treatment, a jejunal ulcer formed from the same causative factor, aided by a dietetic error.
5. The jejunal ulcer was of an acute type, as it is remarkable that no symptoms of jejunal ulceration were noted until the fistula was established.

A SEROLOGICAL INVESTIGATION OF ORIENTAL SORE.

BY

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DURING the last three years a number of cases of oriental sore attended Queen Alexandra Military Hospital for diagnosis and treatment. Most of the cases had multiple sores either of the ulcerative or non-ulcerative type, and in many of the cases both types of sores coexisted. For the reason that the sores were found on exposed parts of the body they frequently presented a more or less symmetrical distribution, which characteristic, coupled with their chronicity, often suggested the question of syphilis. In the majority of cases of oriental sore the clinical history and the finding by the microscope of Leishman-Donovan bodies quickly decide the diagnosis. But in some cases, more particularly those of the ulcerative type where Leishman-Donovan bodies cannot be found, the question of diagnosis between syphilis and oriental sore becomes one of great importance and very great difficulty. And this difficulty may be enhanced in some cases by the occurrence of a solitary sore involving such a situation as the lip or eyelid.

The diagnosis of oriental sore from syphilis has been hampered by writers on tropical diseases stating that the blood in some cases of oriental sore has been found to give a positive Wassermann reaction. Professor Hewlett,¹ for instance, in his well-known *Manual of Bacteriology*, writes: "The reaction (W.R.) is not confined to syphilis. It may also be obtained (with the antigen employed for syphilis) in leishmaniasis." Stitt² states that "Rabello noted that a positive Wassermann may be present in cutaneous leishmaniasis." Daniels,³ and Castellani and Chambers,⁴ while recognizing the difficulty of differentiating oriental sore from syphilis, fail to mention the Wassermann test as an aid to the diagnosis. The same may be said of Manson.⁵ In Daniels's work on *Tropical Medicine* we read: "Syphilis is the disease for which oriental sore is most likely to be mistaken. The

absence of the other symptoms of syphilis and the failure of antisyphilitic treatment should enable a correct diagnosis to be made." Castellani and Chambers write: "The only way to come to a definite diagnosis in difficult cases is the microscopical examination." From these quotations it may be legitimately concluded that a great deal of doubt exists as to the value of the Wassermann reaction as a clinical test for the differential diagnosis of oriental sore from syphilis.

Influenced by these considerations I examined the blood of 28 cases of oriental sore by the complement fixation test according to the Wassermann technique used at the Military Hospital, Rochester Row. In 27 of the cases the diagnosis was established by the microscopic findings of Leishman-Donovan bodies. In one case of the series no Leishman-Donovan bodies were found. This case presented many old cicatrices on both legs and arms, which, from their clinical history and position, were obviously the result of oriental sores.

Of the 28 cases examined by the Wassermann test only one case gave a positive reaction. This case had points of clinical interest which helped to establish the fact that a positive Wassermann reaction is practically never found in oriental sore without concomitant syphilis. The case which proved the exception to the rule was one with an ulcerated oriental sore on the left cheek. Leishman-Donovan bodies were found. The skin on the outer side of the sore presented an irregularly raised dry scaly appearance, not unlike a chronic eczema of the beard, and prevented shaving. This condition of the skin was at first thought to be part of the ulcerated oriental sore, and would most likely clear up after the intravenous injections of sodii antimonial tartrate solution, the line of treatment pursued. In this, however, we were disappointed. The sore on the cheek healed, and the Leishman-Donovan bodies could no longer be found, but the condition of the skin posterior to the sore remained unchanged. The patient's blood was then submitted to the Wassermann test and found strongly positive. A few intravenous injections of "914" with mercurial treatment quickly brought the skin to a satisfactory condition, and confirmed the diagnosis of concomitant syphilis, and further anti-syphilitic treatment changed the Wassermann reaction from a strong positive to a negative.

Although these twenty-eight cases may be considered a small number to dogmatize on, I may be permitted to point out the following facts:

1. The series includes cases in all stages of the disease.
2. All the cases, except the one mentioned with multiple scars, were diagnosed definitely oriental sore by the microscopic findings of Leishman-Donovan bodies.
3. The blood serums from all the cases were examined independently by the Wassermann test at Rochester Row Military Hospital, London.
4. The findings of the Wassermann reaction were negative in all the cases examined except the one recorded with concomitant syphilis.

From these facts it may be confidently concluded that, in the absence of concomitant syphilis, the Wassermann test never gives a positive reaction in cases of oriental sore.

REFERENCES.

- ¹ Hewlett, *Manual of Bacteriology*, seventh edition, 1921, p. 608. ² Stitt, *Diagnostics and Treatment of Tropical Diseases*, third edition, 1919, p. 164. ³ Daniels, *Tropical Medicine and Hygiene*, Part I, 1913, p. 181. ⁴ Castellani and Chambers, *Tropical Diseases*, third edition, 1921, p. 2173. ⁵ Manson's *Tropical Diseases*, seventh edition, 1921, p. 165.

TREATMENT OF RAT-BITE FEVER WITH NOVARSENOBILLON.

BY

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THE following case presents several points of interest. The severe inflammatory symptoms and fever commenced four days after the bite, whereas the incubation period is usually said to be five weeks to two months. The patient suffered from relapsing fever with intervals of three days. The Wassermann test was at first strongly positive, but became negative after the disappearance of all signs and symptoms which immediately follow the injection of 0.2 gram of novarsenobillon.

A haviidar was admitted to hospital on August 30th, 1921, with the history of having been bitten by a rat on the right forearm fifteen days previously whilst on leave. Five hours after the bite