Clinical and other Notes

Number of bacteria in 100 leucocytes in series of five at a time.
Pooled serum:--

\[
\begin{array}{cccccccc}
25 & 19 & 20 & 12 & 8 & 13 & 11 & 18 & 22 & 8 = 156 \\
7 & 27 & 13 & 23 & 30 & 12 & 11 & 12 & 22 & 5 = 162 \\
\end{array}
\]

Total .. 318

Therefore \(403 \div 100 = 4.03\) phagocytic count of patient; and
\(318 \div 100 = 3.18\) " pooled sera.

Therefore \(4.03 \div 3.18 = 1.26\) = opsonic index.

PERFORATION OF DUODENUM AT SEA.

By Lieutenant V. T. CARRUTHERS.
Royal Army Medical Corps.

Since it is presumably one of the functions of the Royal Army Medical Corps to treat the sick in circumstances of discomfort (vide Corps motto), it may not be out of place if those of us who have the misfortune to get into "tight places" in time of peace make a record of our experiences.

While on the voyage to Ceylon in a passenger-ship, a year ago, I was asked by the ship's surgeon to see with him a steward who had been taken ill while waiting at table.

The man had been suffering from indigestion for a week and had been treated with sinapisms. His condition was such that I did not think it advisable to worry him by trying to obtain a detailed history. The diagnosis seemed fairly clear from the first. He was lying on the deck racked by intense spasms of pain in the epigastrium. He complained that he could not draw his breath on account of the pain, but said he would be all right if he could have his bowels moved. His face was moist, cold and pale. The pulse was 70, regular, and of medium force. He did not vomit until the panacea (brandy) was administered by his well-meaning friends; then he vomited once or twice. The abdominal muscles were rigid, but moved slightly with respiration. The liver dulness was normal in area. It seemed plain that some catastrophe had occurred in the upper abdomen, probably a perforation of stomach or duodenum. However, as we did not have any conveniences for immediate operation, we decided to withhold morphia and wait.

At the end of two hours the patient was beginning to have the Hippocratic facies, the pain was continuous instead of spasmodic, and his pulse was quickening and becoming irregular. The diagnosis of perforation was practically certain. Another two hours passed before he would consent to operation.

Our instrument list was not long. I had only my pocket-case and some No. 4 Hagedorn needles. My colleague had the pocket-case
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decreed by the Merchant Service (I believe). It contains chiefly gum-  
lancets, caustic-holders, directors, needle-holders and similar reminiscences of our grandfathers. We had to operate in the forecastle, with our heads nearly touching the roof, and the thermometer (I should say) not far from 100° F. However, the sea was calm, there was excellent electric light, and abundance of sterilised salt solution, clean towels, and willing help from handy men. We also secured the services of a half-trained nurse who was travelling with a passenger. For retractors we took the company's spoons and bent them to the required shape. Of course everything about the area of operation was well boiled.

The ship's surgeon giving chloroform, I then opened the abdomen in the middle line above the umbilicus and found a small perforation in the left surface ("posterior surface") of the first part of the duodenum. At this stage the patient, who, owing to the heat, had taken the anaesthetic very badly, vomited, coughed, and strained so that a considerable mass of intestines prolapsed from the wound. When quiet had at length been more or less restored the bowel was returned coil by coil. However, the abdominal wall was still so rigid, even when it was not actively heaving, that further progress was impossible. Accordingly I was driven to paralyse one lip of the wound by severing the right rectus transversely. The perforation was then hurriedly closed with four stitches of silk. Before a second row could be inserted the patient began to vomit and struggle again, and as his general condition was far from good, the abdomen was closed after the usual "toilet." It was thought advisable to drain the region of the ulcer with two pieces of stethoscope tubing, and the pelvis was also drained through a suprapubic opening.

After-treatment was in the open air on deck, with the patient in the Fowler position on a deck chair. There is nothing special to note about his progress, except that there was some fever, due I believe to wound infection caused by our extempore and scanty dressings. The man was landed in Colombo three days later and made a good recovery.

There is not much to add by way of comment. The case was much the same as others of its class. The feeling of the patient that he will be all right if his bowels move is, I think, not uncommon in these cases. Another patient upon whom I operated for the same condition would hardly allow laparotomy to be done, so convinced was he that only a purgative was needed. The difficulty in breathing is not mentioned prominently by modern authors; but I was interested to find the following passage in a thesis entitled "De Colico Dolore" written by one George MacFarlane in 1803. In describing the accompaniments of pain in the belly he says: "Spiritus plerumque difficile est; et, quoties accepto in spiramenta aere pulmones ad plenum distenduntur, plurimum intendentur dolor abdominis."

I have not heard of the expedient of cutting the rectus being used in any other case, and it is naturally a step that one is reluctant to
take. However in this case anaesthetic troubles wasted fully an hour of invaluable time, and apparently the chloroform would not have given any appreciable relaxation if we had waited another hour.

NOTES ON SIX CASES OF ENTERIC FEVER TREATED WITH ANTITYPHOID VACCINE.

BY CAPTAIN H. T. WILSON.
Royal Army Medical Corps.

It is admitted that a series of six cases is too short to justify definite conclusions, but in view of the beneficial results noticed, and the remarks by Lieutenant-Colonel Sir W. B. Leishman in Captain Smallman's former article in the Journal, these notes are published. Ordinary vaccine from the Royal Army Medical College was used in all cases; besides the vaccine the cases were treated on general lines as follows:—

Milk was given unless contra-indicated by the presence of curds in the stools or distension, when whey was substituted. As in enteric fever a patient has to be kept on fluid diet for a long period, I think the fluid should have the highest nutritive value possible, so as to keep up his strength for the later and more trying period of his disease. Fresh limes were used throughout the disease, at first to swab out the mouth and keep it clean, later in the form of lime juice, thus counteracting any tendency to sponginess of the gums, and the increased coagulability of the blood which occurs later in the disease.

Alcoholic stimulants were not given, as at the Temperance Hospital, London, where alcohol is only used in special cases when the occasion demands, and not as a routine, the freedom from delirium of the cases noticed there was very marked.

The following mixture was given three times a day till convalescence:—

Bismuth salicylate ... ... ... ... gr. xxx.
Sodi bicarb. ... ... ... ... gr. x.
Calcium chloride ... ... ... ... gr. x.
Mucilage ... ... ... ... q.s.
Aqua menth pip. ad. ... ... ... ... 3i.

The calcium chloride was omitted as soon as the temperature dropped. During convalescence urotropine and sanatogen were used, and any other tonic that might be required.

The cases were undoubted enteric fever, having all the signs and symptoms, together with the typical enteric spots.

Case No. 2 had been inoculated against enteric three times, once within the last year, and his serum was tested for a reaction with para-typhoid bacilli, but with a negative result.

Case No. 3 stated "he had been inoculated once," but seemed very doubtful on the point, and no entry to this effect could be found in his medical history sheet. The remainder had not been inoculated.