Bacillus typhosus; from the spleen and intestine a *B. coli communis.*

Captain C. F. Moffatt opened with a short résumé of the clinical aspect of typhoid fever. He explained that he wished to contrast the disease as recognized in civil practice with the course of a great number of cases passing through our wards, whose diagnosis is at present so often obscure, but in which infection by the typhoid group was so frequently suspected. He then gave the above details of the case of typhoid fever, in which it had been fully proved that the infection was typhoid. He showed several charts of cases which had come under his observation in which the remarkable feature had been the relapses into high fever, with definite intervals between. He pointed out that the course of fever in these cases was quite different to that of the typical typhoid, and admitted that he had revised his opinion as to their cause during his work in France. He had at first been inclined to class them as paratyphoidal infections, but now thought that some at least could not be so classed, and yet the case of typhoid fever given above certainly strengthened the view that these cases of irregular fever might be of typhoidal origin, for the temperature in this case was just as irregular and atypical as in any given case of obscure fever.

Major MacDermot showed some charts of irregular fever, and drew attention to the fact that in some of these the diagnosis of paratyphoid had been formed at a later date in the Isolation Hospital. He had been impressed by the great number of cases exhibiting this type of temperature, and only could conclude that if the typhoid group was at the bottom of the trouble its power must have been considerably weakened, and this could only have been due to the effect of inoculation. It was remarkable that cases should have such long-continued temperature and yet show so little clinical evidence of acute illness. The appetite was quite frequently good, and the general condition of the patient comfortable, except for the aching of the legs and lumbar muscles. Enlargement of the spleen, however, was a fairly constant accompaniment.

Major Ower said that he thought there was a definite group of cases which were not typhoid. In these the intervals between the rises of temperature were more marked and clear cut than in the ordinary "trench fever" type. They constantly showed a high leucocyte count, as against the low count of the ordinary "trench fever." He had, however, arrived at no conclusion as to their cause.

Colonel Gunn remarked that in any case the degree in which typhoid fever had been controlled during this War was most noteworthy. He spoke from the point of view of the surgeon as regards complications, which he had not yet come across in his experience in France.

Captain Kenny thought that the inoculation had undoubtedly modified the disease. His experience had shown him that cases of undoubted typhoid had had a most unusually mild course.

Major Ower gave a short account of the laboratory details in regard to the diagnosis of typhoid fever.

At the meeting of the same Society, held on January 10, 1918, Lieutenant-Colonel J. A. Gunn and Major H. E. MacDermot presented a case of acute cholecystitis due to paratyphoid B.

(*a*) Major MacDermot.

The patient had had a week's fever before being admitted to the hospital, and had complained of general malaise and aching. He had had a previous attack of fever in November last, but neither in that attack nor at the onset of the present illness had he complained of abdominal pain. The temperature was falling, but suddenly patient was seized with pain over the region of the gall-bladder and with vomiting. For three days he was seen constantly by Colonel Gunn, but as he seemed to improve, and the temperature dropped like a crisis, it was finally concluded that the pain had been due to some pleural involvement.

White blood corpuscles on the first day 14,000; dropped to 12,000, and patient improved quickly and asked for food. Some increase in the diet was made, and was followed by a slight rise of temperature next day, and the day following by a higher rise, with chill and return of pain. Late in the day the patient was apparently improving; temperature was falling; pulse 72, but on account of the persistent rigidity in the upper right quadrant and the severe pain on pressure, it was considered wise by Colonel Balance, Consultant in Surgery, to exclude an abdominal condition. At operation the omentum was found adherent to the gall-bladder, which was full, but not distended, dark in colour, and showing two patches of lymph on its surface. Aspiration removed considerable purulent bile. The gall-bladder was opened and drained. It was noted at the time that the tissues of the gall-bladder were extremely friable. Patient did remarkably well for three days, when he was seized during the night with acute respiratory distress. The examination early next morning showed that, in addition to a probable broncho-pneumonia, the patient had acquired a collapse of his whole right lung. The condition cleared quickly, and patient has done well. From the fluid removed at operation *Bacillus paratyphoid* B was cultivated in the laboratory.

(*b*) Lieutenant-Colonel Gunn.

When I first saw this patient he had had rise of temperature, vomiting, and pain in the upper part of the abdomen. Our examination seemed to show that the condition was pleural rather than abdominal, but the examination four days later induced me to change my opinion, and when seen with Colonel Balance late in the fourth day it seemed wise, as mentioned before, to exclude an abdominal condition, although the patient now was in excellent shape, with falling temperature and slow pulse. A steadily increasing temperature, with the septic manifestation of a chill, suggested with the other symptoms a possible gall-bladder infection.

Major Gwyn suggested at the time that the infection might be found to be due to some member of the typhoid group.

Sir John Rose Bradford discussed the case, and cited a similar one.

Major Gwyn discussed the case, and dwelt upon the fact this was the fourth instance in which a mild P.U.O had been proven bacteriologically to belong to the typhoid group. Of the three previous cases, one had developed serious symptoms and had shown paratyphoid B in his blood; the second had run a similar course, and had shown *Bacillus typhosus* in the blood; a third had died, and had shown the classical lesions of typhoid fever. All the cases were men who had been inoculated within a period of two years. Major Gwyn further stated that of the new wards built, two or three would be reserved for cases of P.U.O. so-called, which would be treated as typhoid or paratyphoid, in the hope that the frequent relapses seen in these P.U.O. cases might be avoided by a careful dieting and treatment. Certainly we were not disposed to consider P.U.O. as a disease of a light nature in view of our experience with these four cases.

Major Ower spoke on the bacteriological findings, and demonstrated the high agglutination shown by the patient's blood towards the *Bacillus paratyphoid* B.

At the meeting of January 17, Major MacDermot gave a brief account of the case presented at the last meeting, and detailed the attack of acute pulmonary distress which had taken place during the night following the operation. According to the signs and symptoms, he stated, it would appear that this case had had the interesting complication of collapse, partial or complete, of the right lung, following his abdominal operation. After a very brief period of distress the patient showed marked improvement, and the physical signs of collapse of the upper lobe had disappeared quickly. There still remains some indication of broncho-pneumonia at the right base, and it was to be remembered in considering the case that he had had cough and expectoration, with limitation of the breath sounds at the right base just previous to operation.

MEDICAL SOCIETY OF THE 5th CANADIAN DIVISION.

THIS Society was established on October 8, 1917, Colonel Lorne Drum, A.D.M.S., 5th Canadian Division, being appointed Hon. President, and Major J. W. Shaw, M.O. 161st Battalion, President.

The first regular meeting was held on October 15, 1917,