

found with advanced peritonitis, which proved rapidly fatal. In another case there was no perceptible change in the pulse rate during the first twelve hours. In three cases the pulse rate increased not more than 10 or 12 beats per minute before operation.

The temperature records are by no means uniform. In four cases there was practically no change; in five there was a slight rise; in one case a sudden rise of several degrees, and in two the temperature fell.

Autopsy was obtainable in only 3 of the cases. In the case in which operation had been refused a perforation was found nine inches from the ileocaecal valve. In another case, one which had survived the operation four days, there was no evidence of general peritonitis. The perforation was perfectly closed, but the lower two feet of the ilium was very dark in color, and in an extremely ulcerated condition. The other case was one which had lived 11 days after operation. To relieve the extreme distension and post-operative ileus, an artificial anus had been made on the left side 6 days after first operation, with only temporary relief. The perforation was closed, but a sinus leading down from the artificial anus to the pelvis allowed considerable feces to escape in this direction, and this was the direct cause of the fatal termination.

The leucocytic counts were very variable. In four cases, one of which recovered, there was a leucocytosis varying from 14,800 to 28,400, with a percentage of polymorphonuclear cells ranging from 80 to 94. Successive counts in one case showed a lessening leucocytosis, while in another it was increasing. In four other cases, one of which recovered, the number of the leucocytes was normal or below normal, and successive counts showed the number to be decreasing.

The condition of shock which it is sometimes claimed immediately follows perforation, and should be an indication for delaying operation, was not noticeable in any case in this series.

The treatment adopted varied but slightly in the different cases. In one, operation was performed under local anesthesia, while in all the others a general anesthetic was administered. In one case the abdomen was closed without drainage. Following operation, patients were put in the modified Fowler position, and continuous saline proctoclysis instituted.

The conclusions arrived at from a study of this series of cases may be briefly summed up as follows: The classical picture of perforation in typhoid fever is rarely, if ever, seen, except in cases in which operation has been unduly delayed. A perforation may occur as early as the eighth day of the disease, but usually occurs toward the end of the third week. A sharp pain in the abdomen