

TRANSACTIONS OF THE PHILADELPHIA ACADEMY OF SURGERY.

Stated Meeting, June 4, 1894.

The President, Dr. WILLIAM HUNT, in the Chair.

A CASE OF PYÆMIA DUE TO APPENDICITIS.

DR. RICHARD H. HARTE related the history of the following case: A. C., aged twenty-five years, was admitted to the medical wards of the Episcopal Hospital, May 9, 1894, supposed to be suffering from abscess of the liver.

He had enjoyed good health, although not especially robust, except about three years ago when he had a short illness ushered in by a chill, accompanied by sharp cramp-like pains referred to the lower third of the abdomen. He was confined to bed for a week. About two weeks previous to admission to hospital, he was awakened with sharp pains in the right iliac fossa, and in the course of the morning they were followed by a pronounced chill, succeeded by sweating; through the day he felt nauseated, and in the evening vomited.

During the interval of two weeks from the time of his first attack until his admission into the hospital, he had always once in twenty-four hours, and sometimes oftener, a decided chill followed by profuse sweating; pain, referred in the right iliac, umbilical, and hypochondriac regions, was almost continuous; the bowels were watery, and moved daily; the patient was confined to bed and growing weaker.

After his admission into the medical ward all his symptoms were referred to the region of the liver, over which there was distinct tenderness. The daily chill and high temperature (106° F.) naturally led to the suspicion of abscess of the liver, and he was transferred to the surgical wards for operation.

On examination of the abdomen, a distinctly morbilliform eruption was seen to be pretty generally distributed over the entire trunk. On the next day an incision corresponding to the right semilunar line

was made which gave a free opportunity to explore the surface of the liver, which appeared normal. An exploration with an aspirating needle failed to reveal any purulent collections. The region of the appendix was explored through the abdominal wound, suspecting that possibly it might be the seat of the trouble; but with the hand carried down over the liver to the right iliac fossa, no evidence of trouble was apparent.

After this operation the chills seemed to be less severe, not being so frequent as before, and the temperature not rising so high. The external wound closed quickly, and no symptoms relative to the operation were manifest. The next chill was four days after the operation, and the temperature did not rise to within two degrees of the height of the previous one. The next chill did not appear until the fifth day, although the patient was gradually growing weaker. He died on the tenth day after the operation. After the second chill he began to expectorate bloody mucus, sometimes a cupful of blood being expectorated during the twenty-four hours.

A post-mortem examination revealed the liver slightly enlarged and filled with a large number of metastatic abscesses, the principal pus collection and largest abscess being in the left lobe. The appendix was entirely destroyed, and its position occupied by a small pus-cavity holding about three drachms of pus. The cæcum for several inches beyond its attachment to the appendix was gangrenous. There were some septic deposits in the lungs, although no distinct infarcts were to be found.

DR. WILLIAM J. TAYLOR said that in an autopsy made by him some ten years ago an ulcerated condition of the bowel, undoubtedly due to inflammation around the appendix, was found. There were also pyæmic abscesses throughout the liver. The patient, a boy fourteen years of age, had died of general pyæmia due to infection from this inflammatory condition of the appendix.

DR. T. S. MORTON had never met with pyæmia where abscess about the appendix was found, but he recalled a number of instances in literature where pylephlebitis had extended from the abscess cavity directly to the liver. He had seen one or two cases where intense jaundice accompanied this condition. Here it was quite evident that the infection about the appendix had travelled by the lymphatic or venous route to the liver.

DR. HUNT remarked that pyæmia associated with appendicitis must be a rare condition. He did not recall having seen it.

DR. L. W. STEINBACH said that one of the cases referred to by

Dr. Morton was one of appendicitis in a young man and was under his own care. He saw him for the first time on the fifth or sixth day of the disease. Slight jaundice was present at the time of operation, but increased rapidly after the operation. The patient lived a week or ten days after the operation.

ON THE USE OF BACTERIOLOGICAL EXAMINATIONS TO DETERMINE THE NECESSITY FOR ABDOMINAL DRAINAGE.

DR. C. B. PENROSE stated that surgeons drain the abdomen for two reasons,—for hæmorrhage and for septic material. As the experience of the operator increases and his skill in enucleating tumors becomes greater, he has less hæmorrhage, and, other things being equal, he drains less. Our methods of controlling hæmorrhage in abdominal operations are better than they were a few years ago, the Trendelenburg posture enabling us to check bleeding from small vessels in the bottom of the pelvis, which before the introduction of this position required drainage. The operator who enucleates pelvic tumors with two fingers and closes the abdomen without seeing what he has done will necessarily have much more doubt in regard to hæmorrhage, and will use the drainage-tube much more frequently than the operator who inspects the field of enucleation before closing the abdomen.

The second reason for drainage is the septic character of the material which escapes or is retained in the abdomen. Knowledge in regard to this fact is of great value in deciding about drainage in any case.

During the past winter, at the University Hospital, an immediate bacteriological examination has been made of the contents of every tubal or ovarian tumor which was ruptured during removal, and the report of the pathologist in regard to the septic or aseptic character of the contents has determined the operator's decision in regard to the use of the drainage-tube.

Out of a series of forty-six cœliotomies, in which drainage was used but three or four times for hæmorrhage, and only once because the microscope showed the material which escaped into the abdomen to be septic, there has been no case of peritonitis or sepsis.

The tubal contents in most cases of salpingitis are sterile. Shauta (*Archiv für Gynäkologie*, 1893, No. 44) reports 192 cases of salpin-

gitis, in 144 of which the contents of the tubes were sterile, in 33 there were gonococci, and in 15 streptococci or staphylococci.

Before he began to use this method of bacteriological examination he inserted a drainage-tube in every case of tubal and ovarian abscess where the contents escaped into the peritoneum. Now he neither irrigates nor uses the drainage-tube unless the microscope shows these contents to be septic. The presence of gonococci in small numbers does not necessitate drainage. Recently the value of this bacteriological examination was illustrated by two cases operated on consecutively. Each woman had a tubo-ovarian abscess caused by sepsis at labor. In each case the abscess was ruptured during removal, and the pelvis filled with pus. In the first the pus was found to be sterile, and he closed the abdomen without irrigation or drainage. In the second one pus contained streptococci and staphylococci and coli commune. Consequently, the pelvis was thoroughly washed out and drained.

Both women recovered without peritonitis or sepsis, though the convalescence of the first was very much easier than that of the second.

Cover-glass preparations of the material to be examined are made, and are fixed in the flame of an alcohol lamp, and stained with carbol-fuchsin. The microscopic examination is made with a Leitz $\frac{1}{12}$ immersion lens.