

A CASE OF INTESTINAL OBSTRUCTION BY A GALL-STONE.

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DR. WRIGHT supplied me with the following notes of this case :—

Mrs. F. F., aged seventy-three years; bore seventeen living children, and has been very healthy all her life, with the exception of two or three illnesses connected with child-bearing, one being an attack of abdominal inflammation and another of phlegmasia alba dolens. On the night of February 12th, 1905, she was taken suddenly ill with an extremely acute attack of pain in the hepatic region, accompanied by vomiting; this was relieved by hypodermic injections of morphia. Two days after the patient was distinctly jaundiced, and I had no doubt at the time the pain was due to the passage of a gall-stone. After the acute pain subsided, a good deal of tenderness persisted over the region of the gall-bladder for a month; her temperature was slightly raised, her tongue furred, her bowels constipated, her appetite poor, and, in fact, from February 12th until the middle of April she was not well, suffering from what I looked upon as a condition of slight cholecystitis, brought on by the discharge of the gall-stone. Early in May she seemed to be perfectly well, so far as any liver or stomach trouble was concerned. On the 3rd June she got an attack of phlebitis in one of the superficial veins of her right leg, which completely disappeared before the end of the month, and again she seemed quite well. On Saturday evening, the 6th August, I was sent for and found her suffering from intense pain in the pit of the stomach. This had begun the evening before as a sensation of fulness, which had gradually increased until it became acute pain. Her son, who was a medical man, and staying in the house, had given her twenty-six drops

of Collis Browne's chlorodyne without effect. I gave her $\frac{1}{4}$ gr. of morphia hypodermically, and ordered poultices to be constantly applied. I also left a dose of 30 minims of nepenthe, to be taken if the pain was not better. I was sent for early the following morning, as she had had a wretched night—sleepless, retching, and in constant pain, which none of the opiates had relieved. I found her looking very anxious; there was no rise of temperature, and no sign of any tenderness or tension in any part of the abdomen, but while I was standing by her bed she said she felt sick, and at once vomited, the discharge being so copious and expelled with so little effort that I felt convinced there was some obstruction of the bowel, and told her son I should like to get a Dublin surgeon to see her with me. I then gave her $\frac{1}{3}$ gr. of morphia hypodermically, with the result that before I left the house she had dropped into a profound sleep. At three o'clock that day I met Mr. William Taylor in consultation. The patient awoke from the morphia sleep just as we came into the house, so that the last dose had given her six hours uninterrupted rest. She told us she "felt ever so much better, not a bit sick," and she took a little freshly made tea without any return of the vomiting. Mr. Taylor examined her abdomen most carefully, but could detect nothing to indicate where the seat of the mischief was, although it was somewhat distended with flatulence; the walls were soft, and there was no sign of tenderness or tension. We decided there was no indication for immediate operation, but that it was better to wait and see what medical treatment would do for her, as it seemed probable that all her symptoms might be due to the passage of another gall-stone, and that the acute stage of the attack had passed. That night I gave her a five grain dose of calomel, followed by a copious turpentine, soap and water enema in the morning, but without result. On the 8th and 9th she seemed fairly well, although feeling nauseated. There was no vomiting or further increase in the abdominal distention, no tenderness or tension to be noticed anywhere, but there was absolute constipation. On 10th August I got Dr. Lennon to see her in consultation. That morning, before he came, she had brought up without effort some mouthfuls of that inky black vomit one sees discharged from the stomach in bad abdominal cases. He also examined her very carefully, and expressed a hope, as he could not detect anything definite

in the abdomen, that the vomiting and constipation might be caused by fæcal accumulation, and suggested copious enemata to be administered by the long tube every three hours. Of these she received four without any result whatever. During that night she several times brought up six or eight ounces of ster-coraceous vomit, and on the morning of the 11th I felt that if we were not able to relieve her by an operation she would certainly die, and that soon. I therefore telephoned to Dr. Lennon asking him to come and bring Mr. Gordon with him (as Mr. William Taylor was out of town) prepared to open the abdomen at once should we decide that such a course was justifiable. Drs. Lennon and Gordon came at 4 p.m., and the latter will relate the surgical notes of the case. From a medical point of view I may give a brief *résumé* of her illness as follows :—

In February a distinct attack of biliary colic, followed by an inflammation of the gall-bladder, which only subsided after two months. An interval of apparently perfect health, as far as abdominal symptoms were concerned, from April to the 6th August; then intense pain over the liver, followed by complete intestinal obstruction, but with no fever or sign of tenderness or tension in any part of the abdomen.

When I saw this lady with Dr. Wright and Dr. Lennon it was clear that she had an intestinal obstruction. The abdominal distention, complete constipation, and fæculent vomit were conclusive evidence. The question was whether an operation offered a reasonable chance of recovery. We decided it would, because, although very ill, the patient did not present the aspect of extreme toxæmia.

On opening the abdomen in the epigastrium some peritoneal fluid escaped—sufficient in amount to explain a dulness in the flanks which we had previously noticed. I first examined the gall-bladder region, and found there firm adhesions, and this evidence of long past peritonitis was present in other parts of the abdomen. I specially noticed a strong band which tied down the omentum to the pelvic viscera. Fortunately this band did not add much to the difficulties of the case, for I was able to turn out the omentum sufficiently to bring the transverse

colon and small intestine into view. The colon was contracted, the small intestine moderately dilated, and its walls congested. I drew out the latter, following the direction of most congestion, and within the first foot of the bowel, thus exposed, I came upon an impacted gall-stone. I removed this through an incision, which I then sutured. Before sewing up the abdominal wall I made a knife puncture in another part of the small intestine, which was specially distended, and allowed a quantity of foul intestinal matter to drain away.

I wish to draw special attention to the state of the bowel at the site of the stone. As you look at this stone you will be struck by its small size. There would appear to be no difficulty for such a stone to pass along the small intestine. As a matter of fact, it was firmly impacted, and was causing complete obstruction. We observed two structural alterations in the wall of the gut. First—When the incision was made there was no pouting of the mucous membrane; it was as though the intestine had been crushed by a Doyen's forceps before its division. Second—We found considerable difficulty in suturing; owing to the friable condition of the tissues the thread repeatedly tore out. That small stones may cause intestinal obstruction is well known (*vide* Treves' "Intestinal Obstruction" and Mayo Robson's "Diseases of the Gall-bladder and Bile-ducts").

After the operation all vomiting ceased (I should have mentioned that we washed out the stomach at the conclusion of the operation), and the patient was able to leave her bed within a fortnight.

The various phenomena of this case do not admit of certain explanation. Three stages in the course of the illness are fairly clearly defined.

First, *a stage of onset*, lasting from the evening of August 5th to the morning of August 7th, marked by intense pain in the epigastrium, retching and vomiting, without fever or local tenderness.

Second, *a stage of quiescence*, with absence of vomiting or even feeling of sickness. This continued throughout August 7th, 8th, and 9th, and it was on the first of these three days that the patient was seen by Mr. W. Taylor.

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Third, a stage with unequivocal signs of intestinal obstruction, especially fæculent vomiting. The first sign which marked the onset of this final stage was "that inky black vomit one sees discharged from the stomach in bad abdominal cases" (I quote Dr. Wright). This occurred on the morning of August 10th, and the operation was performed at 6 p.m., August 11th.

The chief interest and all the difficulty belong to the first and second stages. Were the early symptoms due to the passage of the stone from the gall-bladder to the duodenum by way of a fistulous opening? Again, was the stone impacted when Mr. Taylor saw the patient on August 7th, or did complete obstruction only set in with the return of vomiting on the 10th?

In attempting to answer these questions one naturally turns to the history of other cases of gall-stone obstruction. From such a study one learns:—

1. That the passage of a large gall-stone into the intestine is usually marked by the signs of a local peritonitis, including tenderness and fever.

2. That the passage may be accomplished without causing any symptoms, or symptoms too slight to raise a suspicion of the event.

3. That it is quite the rule in these cases for an interval to occur of variable duration between the supposed date of escape of the stone and the onset of the intestinal obstruction.

In the present case I think the severe onset pain was due to the escaping stone. The absence of fever and local tenderness is a difficulty, but it is met by the second fact (if it really is such) which I have just alluded to—*i.e.*, that a fistula may form and a stone pass into the intestine without any symptom.

In the quiescent period, in which the patient was seen

by Dr. Wright and Mr. Taylor, I do not think there was any obstruction. If the stone had been impacted as I saw it at the operation it is inconceivable that vomiting and nausea could have so entirely ceased. This is the more unlikely seeing that the calculus occupied, not, as is more usual, the lower part of the ileum, but a position probably very high in the jejunum.

Of the third stage I have nothing special to say. Spasm is obviously an important factor in its production.

The treatment of these cases is, fortunately, easily described. If you *can* make the diagnosis—operate! If you *cannot* make the diagnosis—operate!

MR. W. TAYLOR stated that he had seen the patient a few days before Mr. Gordon performed the operation, and on the day before he left town for his holiday. She was then under the influence of opium. He thought that at that time the gall-stone made its exit from the bile passages. At the same time, however, he had not overlooked the possibility of intestinal obstruction. He would like to know if any reasonable explanation could be offered why a calculus of this size should become impacted.

SIR THOMAS MYLES alluded to a case in which he had removed a large impacted gall-stone fifteen years ago. He thought it likely that the impaction in the present case was due to the opium administered, the muscular tissue of the bowel being paralysed. He would advise in such cases that the incision into the intestine be made not directly over the gall-stone, but on the proximal side, as otherwise one cut through infiltrated and devitalised tissues.

MR. JAMESON JOHNSTON inquired as to the amount of distention present and the condition of the bowel at the site of impaction. Mr. Gordon alluded to spasm, but he did not think spasm could exist under the conditions present—viz., inflammatory infiltration and oedema of the bowel wall.

MR. BLAYNEY thought the impaction of the gall-stone in the present case might be due to its rough exterior, by which the

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mucous membrane of the intestine was irritated and abraded, thus permitting micro-organisms to act. This resulted in cedema of the submucous tissue which extended inwards rather than outwards. He believed the impaction was due more to inflammatory cedema than to spasm.

MR. GORDON, in reply, said he thought some of the suggestions which had been made as to the cause of the impaction were correct, but he himself had none to offer. The abdominal distention was not very great. He made the parietal incision above the umbilicus, because the early pain complained of was referred to the upper part of the abdomen.