A CASE OF
COMPLETE INTESTINAL OBSTRUCTION,
ARISING FROM
DISEASE OF THE SIGMOID FLEXURE OF THE
COLON AND THE RECTUM;

IN WHICH THE DESCENDING COLON WAS SUCCESSFULLY OPENED
IN THE LOIN.

BY
JOSIAH CLARKSON, M.R.C.S.

OF BIRMINGHAM.

COMMUNICATED BY
JOSEPH HODGSON, F.R.S.

Received December 24th, 1849.—Read January 8th, 1850.

BETSEY FIELD, aged 21, a robust, healthy-looking person, of rather phlegmatic temperament, consulted me on the 19th of July, 1846. She was then suffering apparently from a slight dyspeptic attack, complaining of pain at the epigastrium, flatulency, and nausea. The bowels had not been opened during the preceding five days. I prescribed for her a mixture, consisting of sulphate and carbonate of magnesia, with compound spirit of ammonia and mint water; she was also to take three grains of blue pill, and seven grains of compound rhubarb pill.

On the 21st she came to me again, with the symptoms unrelieved, and her bowels still unopened. She complained of headache, thirst, and general febrile disturbance. The pain in the stomach was not worse, nor was she at all sick. I ordered her to take immediately three grains of calomel, and seven grains of compound extract of colocynth; and also

a wineglassful of the compound senna mixture, every three hours.

On the following morning she sent for me early, and on my arrival I found her suffering considerable pain in the abdomen, especially about the umbilicus and left hypochondrium. The abdomen was slightly and evenly distended and tympanitic, and pressure upon its parieties increased the pain. She was distressed by constant nausea, but had not as yet vomited. The pulse was 110, full and strong; countenance flushed, and somewhat anxious; skin dry and hot; urine copious, but high coloured. The bowels had not been moved. She was ordered three pills, each containing half a drop of Croton oil; one of which was to be taken every second hour.

At mid-day I found her in much the same condition as in the morning, the oil having had no other effect than to increase the pain in the bowels. She was ordered to have immediately a colocynth clyster, to be repeated in three hours if it does not operate. Ten leeches were applied to the belly.

In the evening, I made an examination of the rectum, preparatory to administering the enema myself. The gut was empty as far as the finger could reach, and appeared to be free to that extent from any obstruction. The colon tube passed up easily a distance of about six inches, but further I could not, by any manipulation, succeed in introducing it. A moderate degree of pressure caused the instrument to twist round, and its beak to re-appear at the anus. I threw up about two pints of fluid, which produced great desire to go to stool, with considerable straining, but the fluid alone came away, and untinged with fecal matter.

These circumstances indicated pretty clearly the existence of some mechanical obstruction. Her general symptoms were also by this time aggravated, and began to put on a serious aspect. The abdomen was greatly distended, and the pain had so increased, that I feared peritonitis had

commenced. She had frequent desire to evacuate in the bowels, but could pass nothing, although she made great, and apparently involuntary efforts. Flatus moving about the bowels, produced loud borborygmi, and its motion could be felt by the hand; it appeared, both to the patient and myself, to stop abruptly in the left iliac fossa. She had vomited three times in the course of the day a quantity of bilious fluid, quite free from fecal odour. She was directed to have twenty leeches on the abdomen, and to take a draught containing twenty-five drops of Battley's solution.

Early in the morning of the 23d I saw her, in consultation with Dr. Bell Fletcher. She had been relieved by the leeches, and the sickness was arrested. The bowels still refusing to act, we made a careful examination of the abdomen and rectum. The former was further distended over its whole surface, but there was not any particular prominence in either flank. The pain upon pressure was considerable, especially in the left side, and it was to this spot the patient pointed as the seat of her disease. Percussion elicited a clear sound everywhere; examination per rectum revealed nothing more than on the previous day. I once or twice thought, when the finger was pushed up with some force, that I could feel a kind of bulging in the rectum, at its junction with the colon. All attempts to introduce the tube were futile, and fluids injected returned in a few minutes, bringing away nothing save a little mucus. On the whole, however, her symptoms were less severe than on the preceding evening. Pulse 110, moderately full; urine plentiful; skin hot and moist. We ordered her to take a table-spoonful of castor-oil every hour, as long as the stomach would retain it.

In the evening, she had taken five doses of the oil before she vomited; she tried more, but each dose returned immediately. In other respects she was much the same as in the morning.

24th.—She had passed a sleepless night, and had vomited

three times: the pain was not very severe, except on pressure.

Considering this was the tenth day since the bowels had acted, the constitutional symptoms were not of that severity which would warrant us in having recourse to so grave an operation as that for opening the colon, and we determined, therefore, to try every other means we could devise, which held out the slightest hope of success. These we considered to be—1st. The administration of large doses of opium. 2d. The cold dash over the abdomen. 3d. Injecting, with force, a large quantity of water into the rectum, and preventing its escape by pressure round and upon the anus. 4th. Galvanism.

Unhappily all these measures, though perseveringly tried for two days, proved of no avail. On the evening of the 26th she was considerably worse; the pain had returned with severity; vomitings of bilious matter were frequent, though nothing stercoraceous was ejected; symptoms of prostration were rapidly developing themselves, and the only resource was evidently in an operation, whereby the accumulated contents of the bowels might escape. At this juncture Mr. Hodgson saw the case, and fully concurred in the necessity for the operation, and urged its immediate performance. Accordingly, at half-past nine p.m., in the presence, and with the assistance of Mr. Hodgson, Dr. Bell Fletcher, Mr. Brindley, and other gentlemen, I opened the descending colon, through the loin, as directed by M. Amussat.

The operation was performed in the following manner: The patient was laid on her belly, upon a table covered with a mattress, and a pillow was placed under the lower part of the abdomen, in order to give prominence to the left flank. At the edge of the erector spinæ, and about two fingers' breadth above the crest of the ilium, I commenced the incision, and carried it outwards for about five inches, so that the centre of the wound thus made was midway between the anterior and posterior superior spinous processes of the

ilium.¹ The quadratus lumborum was soon reached, and its fibres carefully divided, as was also the aponeurosis of the transversalis muscle beneath it. A quantity of loose fat was next removed, and the intestine reached with very little difficulty, apparently not much distended. Four ligatures were passed through it, two of which were fastened to the upper lip of the wound, and two to the lower. The intestine was then divided longitudinally between them, giving exit to a large quantity of fluid fæces; very little blood was lost. The operation lasted twenty minutes, and almost immediately after its completion, the patient expressed herself as being greatly relieved. She was placed in bed on her left side, without anything being applied to the wound. I saw her again in two hours, and found the fecal discharge had been very profuse, and was still continuing. After all the dirt had been removed, a large soft poultice was applied to the side, and she was replaced in her bed in the same position as before. The operation had much relieved her, and her condition was in every respect satisfactory.

27th.—The discharge of fluid fæces had continued copiously all night; the linen placed beneath her being completely saturated; not less than three or four quarts must have escaped. The distension of the belly was gone, and the pain considerably diminished. She had enjoyed about two hours' good sleep in the night, and was much refreshed by it. Pulse 100, full and soft; tongue brown, but moist; general diaphoresis.

¹ Two fingers' breadth above the crest of the ilium, and midway between the anterior and posterior superior spinous processes of the same bone, is the spot beneath which the intestine will generally be found. This mode of finding the exact situation was first pointed out to me by Mr. Hodgson, at the time of the operation; and since then I have frequently proved its accuracy on the dead subject.

I take this opportunity of expressing the great obligation I am under to Mr. Hodgson for his most valuable suggestions and assistance, so freely given throughout the whole duration of the case. To Dr. Bell Fletcher also my warmest thanks are due, and are hereby rendered.

28th.—The fæces continued to escape the whole of yesterday, but not in the night. On the removal of the poultice this morning she had an evacuation through the artificial anus, the matter being less fluid, somewhat moulded, and of a very natural appearance. The cellular tissue of the wound looked black, and in the middle of it the opening into the bowel was very distinct, being surrounded by the everted mucous membrane of its natural colour. She had slept several hours, and was in every respect improving. The poultices were continued.

For several succeeding days I do not find in my notes of the case any circumstances of sufficient importance to require a special report. Without any untoward symptom, she steadily improved in her general health, and the wound gradually cicatrized and contracted, the opening into the bowel being of sufficient size to admit the index finger without any difficulty, and giving exit to three or four healthy stools daily.

Still there was not the slightest indication of the fæces escaping in the natural way. On the 18th day from the operation she voided three or four rounded lumps, which at first I imagined were scybalæ, but upon a careful examination they proved to be merely indurated mucus. At times she complained of much pain of a colicky nature, commencing about the left iliac region, and radiating thence over the abdomen, accompanied with urgent desire to go to stool. These feelings were most speedily relieved by administering enemata of warm water per anum, and also into the intestine by the artificial aperture. On these occasions I endeavoured to ascertain the seat of the obstruction, and was satisfied that it was situated about six inches from the anus, as a flexible tube passed through either orifice readily reached a distance corresponding with this measurement, but could not be got beyond.

In three weeks she was able, with a little assistance, to walk down stairs, and soon to take a part in household work; her appetite became good, and digestion was carried

on with energy, as was evident from the fact of her rapidly regaining her usual habit, and even presenting some degree of *embonpoint*. Her menstrual periods were regular, and the constitution seemed quite to have recovered from the shock of the operation and the antecedent illness.

For several succeeding months she was in a most satisfactory condition, capable of performing the duties and enjoying the pleasures of her situation in life; she was able to walk about the town, and no one meeting her would have supposed for an instant she had been the subject of an operation of this nature. She wore a pad over the orifice, supported by a bandage round the belly, and as she had an evacuation only when these were removed, the inconvenience resulting from the situation of the anus was much less than she had expected or I had ventured to hope.

Whenever, as sometimes happened, the *faeces* were retained for a day or two, or she suffered an aggravation of the pain which still occasionally troubled her, a dose of aperient medicine or the warm water injection would afford her almost immediate relief. The only difficulty experienced was the tendency to contraction which the opening into the bowel at this time began to exhibit, and which required now and then the use of bougies and other dilating agents.

At the expiration of ten months this contraction was becoming the source of very considerable annoyance, as it opposed a serious obstacle to the escape of the contents of the bowels. The evacuations gradually became less frequent, three, four, or five days intervening without one; and even then they were only procured by dilating the orifice and administering injections. The pains became more constant and severe, the appetite began to fail, general disturbance of the digestive process followed, producing emaciation and debility, and giving me considerable uneasiness as to the result.

In this condition it was evident there was but one indication to be fulfilled, namely, so to dilate the artificial anus as to afford free exit to the fecal accumulation. By the con-

tinued use of sponge tents and other appliances, a great increase in the size of the outlet was obtained; but, unfortunately, there was no corresponding increase in the quantity of matter evacuated.

From this time until her death she gradually became worse, suffering most severely from pain in the bowels and a violent sickness, which harassed her at intervals during the last six weeks of her life. Food, even of the mildest description, taken into the stomach produced excessive pain, to be relieved only by vomiting. The consequence of this was, that she rapidly emaciated, and soon presented the appearance of a person in the last stage of *tabes mesenterica*.

At this period I availed myself of the advice of several of my professional friends, and with their assistance endeavoured to dilate the external aperture, which by this time had contracted to the size of a goose-quill. I divided, with the scalpel, that part of the cicatrix which seemed most unyielding, introduced an enema tube, and succeeded in removing a considerable quantity of fecal matter; the aperture being preserved open by means of a hollow tube kept in it.

Notwithstanding these measures, which were perseveringly tried for a considerable time, the bowels refused to discharge their contents, the emaciation rapidly increased, and she eventually died on the evening of the 14th of September, 1847, *having survived the operation nearly fourteen months.*

Examination of the Body, twenty-one hours after death.—On cutting into the abdomen, about a pint of clear, straw-coloured serum escaped. The parietal peritoneum was of a dark mottled colour, and presented innumerable tubercles, of various sizes, thickly studded over its whole surface. It was also much increased in thickness. The peritoneum covering the intestines was in a similar condition; and, from the long-continued inflammatory action of which it had been the seat, the opposed surfaces of the convolution had become so

firmly adherent to each other, as to be separated only with the greatest difficulty. Adhesions of this character had also been contracted between the transverse colon and the liver, the spleen, and the stomach; on the right side the colon was also connected with the abdominal wall. The whole of these adhesions were remarkably firm and unyielding, almost approaching cartilage in their texture; and they thoroughly incorporated the surfaces of the abdominal viscera in one mass, not to be separated in many places without the scalpel. During life they must have greatly interfered with the peristaltic action of the bowels. The transverse and descending colon were empty and contracted, but the whole of the small intestines, up to the duodenum, were greatly distended with consistent fæces; the ascending colon also contained some fæces, but in this part they were more fluid in their consistence. The mucous lining of these parts of the alimentary canal was of a dark colour, and presented numerous patches of ulceration. The most healthy portion was some inches above and below the artificial anus.

A careful dissection of the parts involved in the disease and the operation, revealed the following conditions:—The obstruction was situated about six inches from the lower termination of the rectum, and on a level with the fundus of the uterus. It consisted of a dense cartilaginous substance, surrounding the intestine in this spot, and completely obliterating its canal. It appeared to have originated externally to, or on the outer surface of, the bowel, as this latter, at the point of obstruction, was pinched in, as though it had originally been tied with a ligature. This diseased structure was about the size of a pullet's-egg, the greater part of it being situated anteriorly, whereby it had pushed the fundus of the uterus forward, producing slight anti-version; it was also firmly connected with this organ. On laying open the bowel, and dividing the growth in a line corresponding with it, it was found that the channel was obliterated for the distance of half an inch, and this occlusion was so complete, as even now to prevent the possibility of establishing a communication between the upper

and lower portions of the intestine, except by the aid of the knife.

The appearance of the opening into the bowel from the loin was very satisfactory. Situated about six inches above the obstruction, it was sufficiently large to admit, with ease, the finger; the edges were rounded and smooth, and the mucous membrane, both above and below, was in a perfectly healthy state. The lungs were free from tubercles.