AN ACCOUNT OF TWO CASES OF INTESTINAL OBSTRUCTION,

IN WHICH

**THE OPERATION FOR THE FORMATION OF AN ARTIFICIAL ANUS WAS
PERFORMED; ONE IN THE ASCENDING, THE OTHER IN THE
DESCENDING COLON.**

BY

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THE FORMATION OF AN ARTIFICIAL ANUS IN THE ASCENDING COLON.

CASE I.—On the 8th of October, 1841, I visited Mrs. Gough, a patient of Mr. Dovaston of Llandrinis. She was 47 years of age, and was labouring under many of the symptoms usually attendant upon strangulated hernia. The abdomen was greatly distended, but not very tender; there were distressing hiccough and almost incessant vomiting, which for two preceding days had been of a feculent nature. The pulse was small, rapid, and fluttering, and the countenance expressive of great anxiety.

I ascertained that no evacuation had taken place from the bowels for fourteen days; that the usual purgative medicines had been prescribed, and enemas freely administered without any beneficial result. In the absence of Mr. Dovaston I directed a drop of croton oil to be given every two hours, and the administration of turpentine enemas.

On Sunday the 10th, I was again required to meet Mr.

Dovaston. I found all the symptoms aggravated. The croton oil pills had been instantly rejected, and the enemas returned unaccompanied with any feculent matter.

I learned from the patient's friends that during the past seven or eight years she suffered greatly from constipation of the bowels; frequently passing a week without any evacuation, which only then could be procured by the use of some drastic purgative.

I carefully examined all the parts likely to be the seat of hernia, and also the rectum, which freely admitted O'Beirne's tube to the extent of fourteen inches. A large quantity of tepid water was injected, but it returned almost colourless; and as the patient was able to retain several pints, for some time I concluded that the cause of obstruction was not in the descending part of the colon.

The vomiting had been very distressing since Friday night. If only a table-spoonful of beef-tea was swallowed, it was almost instantly rejected with double the quantity of liquid feculent matter. The abdomen was enormously distended; the hiccough very frequent; and the state of the pulse indicated the case as being nearly hopeless. Under these circumstances I suggested to Mr. Dovaston the propriety of affording the patient a chance for her life by making an artificial anus in the loin. The nature of the operation was fairly explained to her, with no concealment of the great uncertainty of its success. It was offered as a last resource, and freely accepted.

On carefully percussing the abdomen, I found that it yielded a clear tympanitic sound over its whole surface, except on the right inguinal and iliac regions. Here the sound was dull. When comparing the two sides of the belly, the right was evidently fuller and more distended than the left; and this difference was more apparent in the right lumbar region than the left.

The preparations for the operation being completed, the patient was made to lie on her belly, a firm cushion being placed underneath it. I made a free incision through the integument midway between the last rib and the crest of

the ilium, commencing close to the spine, and terminating it in a line forwards with the anterior-superior spinous process of the ilium. I next divided the sacro-lumbalis and longissimus dorsi muscle, and part of the fibres of the quadratus lumborum. A quantity of fat and loose cellular tissue then presented, through which I carefully worked my way with the fore-finger and handle of the scalpel. This loose cellular and adipose tissue surrounds the kidney and intervenes between it and the peritoneal covering of the large intestine. By working downwards in the direction of the transverse processes of the spine, I kept clear of the peritoneum; and at a great depth in the wound I felt the right lumbar colon very tense, and offering a firm resistance to the pressure of the finger.

Before venturing to make an incision into the intestine, I was desirous of securing it by means of ligatures, and this part of the operation I found to be most difficult, in consequence of the great depth of the wound, and the want of needles with an acute angle. I however at length succeeded in transfixing the coats of the colon with two needles armed with a double ligature, and I then made a free incision into the intestine in a vertical direction. Out rushed a quantity of flatus and liquid fæces. In a few minutes we collected two large basinsful of the latter, mixed with a considerable quantity of scybalæ. Although the inverted peristaltic action had gone on for so many days previous to the performance of the operation, and the vomiting had continued with scarcely any intermission, the presence of castor oil (large and repeated doses of which the patient had taken,) was quite evident in the discharge through the artificial opening.

The relief experienced by the patient was most decided and immediate. In the course of a quarter of an hour the tension of the abdomen had much diminished; the hiccough ceased; and, after several pints of feculent matter had been evacuated, the discharge gradually abated. I then drew the intestine more forward with the ligatures, and having passed the needles deep in the lips of the external wound, I secured

the opening in the colon in a manner most favorable to admit the free escape of its contents. A large poultice of linseed meal was applied to the external wound, and the patient was placed in bed, and ordered to lie on her right side. She became faint and exhausted; but after taking a little brandy and water the pulse rallied.

Tuesday the 12th.—On visiting the patient I was gratified to find the progress of the case as satisfactory as possible. Since Sunday evening there has been no vomiting, hiccough, or pain in the abdomen. The discharge through the artificial anus has been most abundant, and the tension of the abdomen has nearly subsided. There is no tenderness on pressure, and the pulse, though small and feeble, beats no more than 90. An enema was administered this morning, and brought away two very small scybalæ, which were coated with a putty-like substance. The patient complains of great soreness in the wound, the edges of which are much inflamed, and the bottom shows a disposition to slough.

Ordered good beef-tea; the poultice to be changed frequently, and a large enema to be given night and morning.

Friday the 15th.—I again visited the patient. She has had no unfavorable symptom until this morning, when a return of the vomiting occurred, and there is considerable tenderness over the whole right side of the abdomen. Pulse 86, rather jerking. Tongue much furred. I ascertained that since Wednesday evening the discharge through the artificial anus has been very scanty, and not a particle of feculent matter returned with the enemas, which have been regularly administered every night and morning.

On examining the wound I found the ligatures quite firm. There was a thick slough, like a piece of moistened brown paper, filling up the bottom of the wound. This I pressed on one side, and gave exit to a considerable quantity of fæces.

Ordered thirty leeches to be applied to the abdomen, and two grains of calomel with a quarter of a grain of opium to be given every three hours.

Wednesday the 20th.—The progress of the case since last Friday has been most propitious. The tenderness of the abdomen soon subsided. The discharge through the artificial anus has been copious, but not the slightest particle of feculent matter has returned with the enemata. On examining the wound I found that the slough had separated, leaving a clear granulating surface at the sides. The ligatures were becoming loose; but as they did not appear to produce much irritation they were allowed to remain. The calomel and opium had been discontinued by the direction of Mr. Dovaston, and the only medicine taken since Monday was a small quantity of castor oil. Pulse 80. Tongue quite clean.

I did not visit Mrs. Gough again until *Tuesday the 2d of November*, when I found her sitting up and most grateful for her recovery. The ligatures had separated on the fifteenth day after the operation, and the whole length of the incision, excepting the part corresponding with the opening into the colon, was cicatrised. By the advice of Mr. Dovaston, the use of enemata had been persisted in night and morning; but they failed in bringing away even the smallest portion of feces: and the patient told me she was convinced that no flatus had passed downwards since the operation had been performed. She had taken a dose of castor oil every other morning since my last visit, which produced a copious evacuation through the artificial anus.

I provided the patient with a short tube of elastic gum, which I directed her to wear in the artificial anus, and to remove whenever she feels an inclination to evacuate the bowels.

In six weeks from the day of the operation the patient walked the distance of a mile, and declared herself better in health than for many years past.

The most remarkable part of the history of this case remains to be told. At the end of six weeks from the performance of the operation, the discharge of feces began gradually to decrease, although the patient continued taking castor oil. She was troubled greatly with flatulence, and

occasionally with sharp lancinating pains through her abdomen. At the end of seven weeks the vomiting returned, accompanied with severe colicky pains. For two days there had been scarcely any discharge through the artificial anus, and that was of a very liquid kind. The patient declared her belief that there was some obstruction at the bottom of the opening. A messenger was dispatched for Mr. Dovaston ; but before his arrival at the patient's house, she had experienced a sudden and effectual relief. A hard substance had shot out from the artificial anus, which, on examination, was found to consist of five plum stones firmly agglutinated to each other. These were followed by sixteen other single plum stones, and afterwards by a very copious feculent evacuation. On the following day three more stones found an exit, accompanied with two small bones, belonging, as I should conjecture, to the pinion of a duck.

Nine months after the operation, the patient, with the exception of the local inconvenience, has no interruption to perfect health. Every week she takes castor oil, which expels one or two plum stones. The number now collected amounts to eighty-six. She has given up the use of the enemias for some weeks, as they failed to produce any good effect ; and she is confident that not even flatus has passed the rectum since the operation was performed.

The progress of the case, until within six weeks of the patient's death, presented no features of particular interest or importance. At irregular intervals, other plum-stones were discharged; and the total number collected was one hundred and sixteen.

By taking simple aperient pills, and an occasional dose of castor oil, the discharge through the artificial anus was free, and scarcely emitted any feculent odour. This circumstance went very far to reconcile the patient, and made her condition less loathsome and repugnant to feelings of female delicacy. The elastic tube had not been worn during the last year of the patient's life, the artificial anus being perfectly patent, and having no disposition to contract.

Within three months of her death, the patient was in the

enjoyment of tolerable health. She could daily walk a considerable distance and attend to her usual domestic affairs. The last time I saw her in Shrewsbury was in July, 1844, when she complained of loss of appetite and general debility. She had become much thinner, suffered greatly from flatulence, and required more frequent doses of aperient medicine. I had no opportunity of visiting her until nine days before her death, when I found her in a sinking state. She had then kept her bed about a fortnight; had taken but little sustenance; had no evacuation for many days, and at first obstinately refused all medicine. She was at length prevailed upon to take a few doses of an aperient mixture, which acted freely, and the discharge through the artificial anus occurred daily up to the 14th of October, when the patient died, having lived three years from the time the operation was performed.

The body was examined on the day after death. Externally there was nothing worthy of observation but the extremely firm state of the cicatrix of the wound. The opening of the artificial anus was plugged up with feculent matter. The abdomen was slightly distended, and the whole body much emaciated.

On opening the abdominal cavity, the omentum was found remarkably thin, almost all trace of adipose substance being removed, leaving only a thin semi-transparent membrane. The cæcum and ascending colon were enormously distended.

I commenced tracing the intestinal canal from the duodenum to the cæcum, passing inch by inch through my fingers. The whole line was perfectly empty. There was no trace of disease or even adhesions until arriving at the termination of the ileon, where three membranous bands were discovered running in a lateral direction, and connecting that portion of the small intestines with the cæcum and ascending colon.

The cæcum itself and the ascending part of the arch of the colon appeared of unusual size, until it was suddenly cut short at the *transverse* part of the arch, by the intervention

of the most rigid stricture I ever felt. If a piece of whipcord had been firmly tied round this part of the intestine, the occlusion would not have been more complete than was effected by this organic change. The whole remaining portion of the transverse arch of the colon, its descending part, and the sigmoid flexure, were collapsed, and formed a thin flaccid tube.

The absence of all traces of inflammatory action in the peritoneum was very remarkable. There was no thickening, no adhesions (with the exception of the three membranous bands alluded to), or deposition of lymph. On making an incision into the intestine, between the strictured part and the caput coli, the muscular coat presented the appearance of the columnæ carneæ of the heart, throughout the whole length of the cæcum and colon up to the stricture being very firm and fleshy. This appearance of the inner surface of the colon anterior to the stricture was like what is seen in the thickened condition of the bladder in cases of obstinate and long-continued stricture of the urethra.

The stricture itself was of cartilaginous hardness, and the closing of the canal so complete that it would not admit the passage of even a bristle. The extent of the stricture was not quite a quarter of an inch, of a white, pearly appearance, perfectly smooth, and having no more apparent vascularity than a tendon.

The peritoneal lining of the abdomen was quite perfect, and I was surprised to find so little thickening in the neighbourhood of the part where the artificial anus was established. The opening forming the artificial anus was in the *posterior* part of the intestine, about an inch above the valve. The length of the opening was barely one inch. Considerable deposition of lymph was found around the posterior part of the intestine, by which it was rendered firmly adherent to the deepest part of the cicatrix of the external wound. The meso-colon or duplicature of the peritoneum covering the intestine in this situation must have been separated by the great distension of the bowel, so as to allow me to open it posteriorly, without a breach of the peritoneum

itself. The other abdominal viscera were healthy. No examination of the head or chest was allowed.

I believe this operation was the first performed in England according to the directions of Mons. Amussat. Mr. Teale, of Leeds, performed the second: and the late Mr. Jukes, of Birmingham, the third. The detail of Mr. Jukes's case is worthy of careful perusal; and the one which I have now related proves beyond doubt the practicability of opening the *ascending* colon, without a breach of the investing peritoneal lining of the abdomen.

M. Amussat, to whom we are indebted for the revival of this operation, discusses, in a paper read before the Royal Academy of Medicine in Paris, the anatomical relations of the lumbar regions, and their connections with the corresponding portions of the colon. Speaking of the left colon, he says—"We find, upon attentive examination, that the intestine is destitute of peritoneum, in at least its *posterior* third, being here surrounded by a cellular coating, continuous with that which lies upon the outer surface of the serous membrane. The three bands of longitudinal fibres may, in the lumbar colons, be described as anterior, internal, and external; and, by measuring the space between the two latter fasciculi, we may ascertain the dimensions of the part uncovered by peritoneum, since they point out the lines at which this membrane is reflected from the bowel upon the walls of the belly."

With regard to the right colon, M. Amussat reports that he has never yet found a lumbar meso-colon, although, when the intestine was contracted, the interval between the two folds of the peritoneum has been sometimes very small. At the same time he observes, that whilst the ascending colon acquires from this arrangement a greater degree of mobility than the descending, he has never yet found it possessed of a mesentery so perfect as to render it floative in the abdominal cavity. Admitting, therefore, that this objection may be urged against an attempt to perforate the right colon when empty, it will not necessarily constitute a sound argument against such an operation when the bowel is distended.

Although we have in many instances seen the peritoneal cavity freely laid open for the removal of large ovarian tumours with no dangerous results, I apprehend that in the performance of this operation for artificial anus it is of the greatest importance to avoid a breach of the investing serous membrane. The wound is of necessity very deep, and in a part where sloughing, to some extent, is almost sure to take place, and any infiltration of feculent fluid within the abdominal cavity would cause inflammation and fatal consequences.

In performing the operation I should always advise two ligatures to be passed through the coats of the intestine, leaving a sufficient space between them for a free vertical incision. With the two ligatures the intestine should be drawn upwards, as close as possible to the lips of the external wound, before the knife is plunged into the bowel.

THE FORMATION OF AN ARTIFICIAL ANUS IN THE DESCENDING COLON.

CASE II.—Joseph Ward, æt. 43, was a man of very stout and muscular frame, with a florid complexion. He was more temperate than the generality of his class, being the driver of a mail coach, which occupation he had followed for many years.

I was first consulted by him on January 20, 1847. He complained of troublesome constipation and occasional pain in the loins. Several hæmorrhoids projected externally, and there had been for some time past a slight discharge of blood after every evacuation.

I directed him to abstain altogether from taking spirits, and prescribed some simple laxatives, and the occasional application of leeches to the anus. I also advised an enema two or three times during the week, if the aperient medicine did not act satisfactorily.

I saw him again on the 14th of March, when he informed me that since I had last prescribed for him his bowels had become more obstinately constipated than ever. A week

had often been passed without his having had any evacuation.

The case now assuming a more serious aspect, I urged upon him the necessity of giving up his work and placing himself under regular treatment.

I was desired to visit him on the 21st of March, and found him complaining of great pain in the loins. He had a severe rigor in the night. Pulse 100. Tongue much furred. No vomiting; but flatulence to an excessive degree. Had no evacuation from the bowels for four days. I ordered him to be cupped on the loins, to take ten grains of calomel and an ounce of compound senna mixture every two hours.

On visiting the patient next day I found him much relieved. The bowels had acted after six ounces of the compound senna mixture had been taken. I prescribed alterative doses of blue pill, to be taken at bedtime every night, and an aperient mixture three times daily.

From the 22d of March to the 2d of April nothing particular occurred. The bowels had acted a little daily; and, with the exception of a dull sense of uneasiness in the loins, the patient had not much to complain of.

On this day, the 2d of April, there was a recurrence of the rigor, followed by excessive heat and vomiting. There was no abdominal tenderness; but the bowels had not acted for twenty-four hours. Similar treatment was adopted as on the former occasion; but the vomiting continued in an obstinate degree, and, after a variety of purgative medicines had been taken, a small flattened faecal evacuation came away with an enema that was administered on the 5th.

On this day, the 5th of April, I first examined the rectum. I could detect nothing wrong within reach of the finger. I then introduced a full-sized bougie, but could not pass it beyond the distance of six inches. No doubt now existed as to the seat of obstruction; and on the following day I endeavoured to overcome it by using a variety of rectum bougies, but failed to introduce the smallest beyond six inches and a half. I then tried a full-sized elastic gum

urethra bougie, and this evidently passed beyond the obstruction, for on withdrawing it a great discharge of flatus took place, followed by liquid feculent matter.

Considerable constitutional disturbance was the result of this attempt; and although the patient, by excessive straining, discharged small quantities of liquid fæces, his condition was gradually becoming more alarming.

On the 12th I again made another careful attempt with the bougie, but the pressure of its point against the obstructing part caused such acute pain, and being followed by slight hæmorrhage, I desisted from further interference. In the evening the patient was seized with a severe rigor and vomiting. Great tenderness of the abdomen supervened. Blood was taken from the arm; leeches applied freely all over the belly; and calomel and opium given every three hours.

In four days the inflammatory symptoms had subsided; the tenderness was entirely removed, but the vomiting continued, and only one slight discharge from the bowels had taken place between the 12th and the 21st of the month.

The greatest attention was paid to the diet, and the irritability of the stomach was relieved for a short time by occasional doses of prussic acid.

Between the 21st of April and the 4th of May, only three small liquid evacuations were produced, and these were attributed to the effect of repeated doses of the inspissated ox gall, suggested as a most useful remedy by my friend Mr. Heathcote, surgeon of this town. The ox gall was the only aperient taken that did not seem to increase the vomiting.

On the 12th of May, after excessive straining, the patient passed by the rectum three small fleshy substances of a placenta-like appearance, accompanied with some hæmorrhage, and a little liquid feculent matter. This was the last time any fæces passed by the rectum. I again examined the rectum with the finger, and found that I could just reach some morbid growth, which certainly was not tangible on the 5th of April.

The condition of the patient during the remaining month of May was most distressing. He was harassed with constant hicough, vomiting, and tenesmus. At times the straining was so great that blood escaped from the anus. The abdomen gradually became more distended, but was free from tenderness. As no relief could be expected from medicine, the vomiting becoming more constant, and the tension of the abdomen daily increasing, I proposed, on the 30th of the month, as a last resource, the formation of an artificial anus. The patient firmly declined submitting to the operation, and requested to have nothing given to him but opium.

From the 1st of June to the 18th he lived entirely upon small quantities of beef-tea, brandy, and soda water, and large doses of *Liq. Opii Sedativus*.

This day, the 18th, for the first time feculent matter in large quantities was vomited; and on visiting the patient in the evening he told me if the fæculent vomiting continued he would submit to any operation. The 19th passed with only the ordinary kind of vomiting. The 20th brought a recurrence of the fæculent vomiting to a considerable amount, and then the patient earnestly requested to have the operation performed. The rectum was again examined with the finger, and the morbid growth was found to be much lower down. It entirely filled up the hollow of the sacrum, was spongy to the touch, and on withdrawing the finger it was covered with a bloody serum, which, however, had no unpleasant odour.

On the 21st of June, at one o'clock, the operation was performed in the presence of many of my professional friends. The stercoraceous vomiting had continued all the morning. The abdomen exceeded in size any that I have ever before or since seen. This enormous distension was not surprising when it is borne in mind that not a particle of feculent matter had passed the rectum from the 12th of May up to the 21st of June, a period of more than five weeks. Pulse 120, very feeble. Countenance anxious and contracted.

The incision was made as in the former case, midway

between the last rib and the crest of the ilium, but on the *left* side, commencing about an inch from the spine.

The patient, although now much reduced in flesh, had been a very powerful muscular man; and I made a much longer incision than in Mrs. Gough's case, as I knew there would be a greater depth of parts to cut through. In dividing the muscles one vessel bled rather profusely, and some time was lost in the endeavour to secure it. After the division of the muscular fibres I came down upon loose cellular and adipose tissue. Pressing this aside I forced my finger deep in the direction of the transverse processes of the spine, and then felt the lumbar colon, but not so tense and resisting as in Mrs. Gough's case.

After clearing away the adipose substance, making the surface of the intestine more exposed, I passed two needles armed with silk ligatures through its coats, drew the bowel upwards, and then made a free incision into it in a vertical direction between the two ligatures. I was disappointed when only flatus escaped freely;—no *fæces* passed. By drawing the intestine upwards with the two ligatures, although the wound was a very deep one, I was able to reach the opening in the gut with my fore-finger, and felt satisfied that it was sufficiently large to admit the passage of *fæces*. Moderate pressure was made on the abdomen in the direction of the descending colon, but only flatus escaped from the wound; and after waiting some time, the patient was placed in bed on his left side, greatly exhausted by the severity of a protracted operation.

I feared that as no *fæces* escaped, the disease had extended above the part of the colon opened, and that the patient would not derive even temporary relief from the operation. Yet the part of the bowel opened seemed to be free from any thickening or disease.

I visited the patient at five o'clock in the evening, and found no improvement in any of the symptoms. The vomiting and hiccough returned. There had been no discharge of *fæces* through the wound, but flatus had occasionally passed.

At nine o'clock I again visited him, and was much

gratified to find an unlooked for improvement. About half an hour previous to this visit, he desired to have some soda water, which he drank freely. Immediately after he felt griping pains; flatus first passed through the wound, then an immense quantity of liquid fæces. The nurse had collected nearly a gallon, and it was still pumping out freely through the artificial anus.

June 22d, 10 o'clock, A.M.—There is a decided alteration in the expression of the patient's countenance. Since twelve o'clock last night he has only vomited twice. He has had no sleep in consequence of the constant escape of feculent matter from the wound. The abdomen is reduced in size, but is tender on pressure, particularly on the left side. Pulse 106. He has made no water since the operation. The catheter was used, and more than a pint of high-coloured urine drawn off. Ordered a grain and half of calomel and a quarter of a grain of opium every four hours. Beef-tea and soda water.

7 o'clock, P.M.—Vomited twice since morning, ejecting the beef-tea and soda water, but no stercoraceous matter. Up to four o'clock this evening the discharge of liquid fæces through the artificial anus was unceasing, but it had now stopped. The tension of the abdomen less. As no urine had been passed, the catheter was again used.

23d, 10 o'clock, A.M.—Has had no vomiting or hiccough during the night. Slept four hours, and was then disturbed by the passing of fæces and flatus through the wound. Pulse 96. The abdomen much reduced in size, but very tender over all the left side. Ordered leeches to be applied. The catheter was again used. Urine less high coloured. To continue the calomel and opium. Beef-tea and soda water.

9 o'clock, P.M.—Vomited once this morning after drinking off at one draught a bottle of soda water. Great thirst. Tongue much furred. Pulse 105. Several pints of fæces escaped during the day. The catheter again required. Ordered the dose of opium to be diminished, and gave particular directions that only very small quantities of liquid should be taken at a time.

24th, 10 o'clock, A.M.—Passed a good night. No sickness or vomiting. Tension of the abdomen much subsided. Less tenderness. Free discharge of healthy feculent matter through the wound early this morning. Pulse 90. Tongue cleaner. Used the catheter; urine paler. To continue the calomel and opium every eight hours.

9 o'clock, P.M.—Pulse 95. No sickness. Free discharge of flatus and feces through the wound at intervals during the day. Used the catheter again. As the gums are now affected, ordered the calomel to be discontinued. He can bear pressure now over every part of the abdomen. My attention was directed to an enlarged gland in the left groin, which was very tender and painful. Wound looks remarkably well; but the integuments covering the sacrum and left hip are very red and sore.

25th, 8 o'clock, A.M.—Has passed upon the whole a comfortable night. Slept several hours, but this morning is much troubled with flatulence and acidity of stomach. Ordered a mixture with calcined magnesia and peppermint water. Passed the catheter. Urine less high coloured. Pulse 90. No tenderness of the abdomen, which is reduced almost to its natural size.

8 o'clock, P.M.—Going on well. No sickness. Large quantity of feces passed through the artificial anus since morning. The flatulence has ceased. Patient says he feels better now than at any time since the operation. Has passed a little urine; but as the bladder felt rather distended the catheter was again used.

26th, 8 o'clock, A.M.—Has passed a good night, and before my visit this morning, made water freely, and also discharged feces through the wound. The wound looks healthy, but sloughing of the integument covering the sacrum has commenced.

27th, 8 o'clock, A.M.—Passed a very restless night. Suffered much from the soreness of the sacrum, and pain in the left groin, which is much enlarged. This morning the abdomen feels more distended, although there has been no want of discharge through the wound. Pulse 96, and weak. Patient

is low and desponding. He was ordered to take good beef-tea and a little brandy and water.

9 o'clock, P.M.—Is more comfortable. Pulse 90. Free from sickness, and complains only of occasional shooting pains through the left groin.

28th, 8 o'clock, A.M.—Has had little sleep, but is in better spirits this morning. Dressed the wound, which looks healthy, and removed the ligatures. No tension or tenderness of the abdomen. Made water freely, and passed a large quantity of fæces through the artificial anus. The sloughs of the parts covering the hip and sacrum begin to separate.

29th, 10 o'clock, A.M.—Is cheerful this morning, having passed an excellent night, undisturbed by flatulence or the escape of fæces through the wound. After breakfast he parted with flatus and feculent matter, and was then placed on a water-bed. He expressed a desire to eat a little boiled mutton for dinner, and for the first time he was allowed to take any solid food since the operation.

July 8th.—From the last report up to the present time, the patient has progressed favorably, and as no untoward symptoms arose, I have not inserted the daily account from my note-book. Every day the discharge of fæces through the wound was in moderate quantity, and there was no return of vomiting or pain in the abdomen. This morning he was seized with acute pain in the left side of the belly, and had during the night a slight shivering fit. The enlargement in the left groin has much increased, and this morning an indurated gland in the right groin is perceptible. As the patient complained of some difficulty in emptying the bladder, the catheter was again introduced, but not more than a quarter of a pint of urine was drawn off. The application of leeches to the left side of the abdomen, and suspending the use of all stimulants, constituted the treatment adopted for three or four days. The pulse was increased in frequency. The urine very high coloured, and emitting a most offensive odour. It was now too evident that the disease was operating most unfavorably on the vital powers.

The glandular affection of both groins rapidly increased ; the difficulty of emptying the bladder was so great that the use of the catheter was required every night and morning. In addition to these untoward symptoms, the sloughs over the sacrum and hip gradually extended, notwithstanding all pressure was carefully removed by means of the water-bed. On this day I passed my finger again into the rectum, and found that the tumour had descended close to the sphincter, and completely filled up the canal. The pressure produced by the morbid growth accounted for the difficulty in emptying the bladder.

It was satisfactory to know that, up to the day of the patient's death, no return of vomiting occurred, and no interruption to the daily passage of fæces through the artificial anus. The enlargement in each groin rapidly increased ; that of the left assumed a livid appearance, and ulceration of the surface took place three days before the patient's death. The tumour also projected through the sphincter ani, and attained the size of a small orange. In substance it was rather firmer than the placenta ; it was not sensible to the touch, but bled on the slightest fingering. The wound had almost healed, excepting at the part corresponding with the opening into the colon. .

Although the patient was rapidly sinking, and suffering from the painful state of the sloughing wounds, he frequently expressed his gratitude for being relieved of what he termed "that horrible throwing up of the stools."

I endeavoured to alleviate his sufferings by repeated doses of opium, and the last week of his existence was one of comparative ease. The appetite gradually diminished. The pulse became weaker and fluttering. No delirium took place, but the patient retained his consciousness to the last ; and expired on the 26th of July, having lived one month and five days after the performance of the operation. No examination of the body took place.