A CASE OF
INTESTINAL OBSTRUCTION
FROM
DISEASE OF THE RECTUM,

**TREATED SUCCESSFULLY BY OPENING THE DESCENDING COLON IN
THE LEFT LOIN.**

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COMMUNICATED BY
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ON the 15th of August, 1849, I was requested to visit Mrs. T—, a rather tall, spare woman, in the sixty-second year of her age, who was suffering from severe pain in the umbilical and hypogastric regions, with frequent retching and some vomiting. She had also a sense of fulness in the abdomen, flatulence, and constipation, with loaded tongue, but no peritoneal tenderness or fever. I learned that she had been eating indigestible food, and attributed the attack to that cause. She took a dose of calomel with opium, followed at intervals by a magnesian aperient draught, and had an antispasmodic and laxative enema. The sickness ceased, and the bowels were speedily and freely relieved; but the pain, to a less extent, recurred occasionally, and she had symptoms of indigestion for a few days, which were removed by nightly doses of compound extract of colocynth with conium, and a stomachic draught taken between meals.

On the 1st of October, 1849, I was again called to her, and found her labouring under an attack of a similar kind, which was not referable to any obvious cause. On this occasion I found the abdomen swollen and tympanitic, with slight tenderness on pressure in the left iliac region. She had a femoral hernia on the left side, of the size of a small orange, which was tense and somewhat tender, but which was reduced by perseverance in the use of the taxis. She was kept in bed until a truss was procured; took a dose of castor oil, and fomentations were applied to the belly. On the 11th of October she had a return of the former symptoms, and it was now discovered that she had also a femoral hernia on the right side, which had become incarcerated, and which was reduced by the taxis. She had on this occasion so much pain, that it was necessary to give her two or three doses of opium, to foment the abdomen, and to relieve the bowels by aromatic aperients. A double truss was now applied; and, having directed her to regulate her bowels by castor oil or compound rhubarb pills, my attendance upon that occasion ceased.

On the 9th of November in the same year I was again summoned, and found many of the signs of intestinal obstruction present. Her pulse was tranquil, her skin cool, and her tongue thinly furred. Her bowels had been scantily moved on the previous day, but not thoroughly for several days. She had much and constant abdominal pain, although this varied in intensity. The belly was distended, and somewhat tender on deep pressure; she had nausea and retching, but no actual vomiting. Micturition was frequent; the urine scanty and loaded; and she had deep-seated pain in the sacrum, with an intermittent forcing sensation, or bearing down, in the rectum. I found that, within reach of the tip of the finger, the bowel was obstructed by a firm growth, occupying its whole circumference: this had an uneven surface, and a dense consistence; near its centre was a small fossa, which appeared to be the lower orifice of the contracted portion of the canal. I attempted to dilate this opening with the finger, but its distance from the anus

rendered this proceeding useless, and the slightest pressure from below pushed the strictured part upwards. The uterus was quite healthy, and could be moved independently of the diseased bowel. As the stricture did not seem to produce complete occlusion, she was ordered to take two pills every fourth hour, composed of five grains compound extract of colocynth and five grains of extract of conium; and an enema was given with the ordinary syringe, in the hope that some of it would pass through the contracted canal, and thus liquefy the accumulation above. Next day, finding that the enema had been expelled, after a few minutes' retention, without any fæces, and that the symptoms were unabated, I attempted to pass a small œsophagus-tube, and succeeded in penetrating the stricture for a short distance, but could not get through it; some fluid was, however, injected along the tube, all of which did not return. On the following day, finding that a little dark-coloured liquid stool had been voided, the tube was again tried; and a quarter of a drop of croton oil was added to each dose of the pills. By perseverance in this treatment, the bowels were, after two or three days, partially unloaded; and I hoped that time would now be gained for the dilatation of the stricture, with which object bougies of small size were employed, but with only a small amount of success. In a few days constipation returned, accompanied by symptoms of peritoneal inflammation. Her pulse rose to 100, she had loss of appetite, thirst, dry tongue, heat of skin, with short and hurried breathing. The abdomen, which had been softer and smaller, again became tense, tumid, and tender, and her suffering was increased by very slight pressure upon it. She now took two grains of calomel with the fourth of a grain of opium every four hours; croton oil liniment was rubbed freely over the abdomen, and hot fomentations were assiduously applied. Under these measures she improved; the symptoms of peritonitis disappeared, the size of the abdomen was lessened, and diarrhœa shortly came on. The diarrhœa was not controlled by any astringent, but in a few days spontaneously subsided.

As was anticipated, however, the constipation again became troublesome, and an examination of the rectum showed that there was now a more complete closure of the canal in the part diseased than existed prior to the attack of purging. There was as yet no vomiting. She was directed to take colocynth and hemlock pills; and bougies and catheters, flexible and metallic, the latter having their curves altered, were employed in endeavours, which were only occasionally successful, to pass through the stricture and to draw off the contents of the bowel. In this state she passed the latter part of November, the whole of December, 1849, and the early days of January, 1850, the relief produced by occasional faecal discharges—sometimes spontaneously, sometimes artificially, induced—being sufficient to avert the distressing effects of perfect obstruction. During this period my friend, Dr. Bell Fletcher, saw the patient with me on several occasions, and aided me by his valuable advice.

On the 17th of January her state became much aggravated. The stricture of the rectum produced complete occlusion; every attempt to penetrate it by the instruments formerly used was unsuccessful; inverted action of the stomach and bowels came on; her pulse rose, and her condition became so perilous and urgent, that on the evening of the 23d of January, 1850, she requested me to perform the operation which was proposed for her relief. Her state then was as follows: countenance pale, sunken, and anxious; breathing short and hurried; skin cool and clammy; pulse 120, small, and compressible; tongue ash-coloured and moist; constant pain in the abdomen, with distressing sense of tension, both increased in violence occasionally; continual vomiting of a brownish fluid, which, for the last two days, has had an undoubted faecal odour and appearance; has passed no alvine evacuation whatever for five days, although she has been harassed with tenesmus and straining, by which a little mucus, sometimes tinged with blood, has been voided per anum. The abdomen is greatly distended, and the iliac and lumbar regions on both sides are dilated and bulge outwards. Pressure does not cause com-

plaints of tenderness, but induces immediate sickness. Percussion yields a tympanitic sound over the whole abdomen in front, but, as the patient lies on her back, the lower and under part of each lumbar region, especially the left, gives a dull resonance. When she is turned upon her face, the lumbar spaces are found to be widened laterally, and tumid; and when struck with the fingers, a clear sound is produced, from the solid contents of the colon having gravitated towards the front of the body.

At eight o'clock, P.M., January 23d, 1850, in the presence of Dr. Heslop, Mr. Hale, and Mr. James, I opened the descending colon in the left lumbar region, where it is not enveloped by the peritoneum. The patient being laid upon her face in bed, and her truss removed, lest it should interfere with the operation, an incision was made transversely across the left loin for five inches, commencing about two inches from the spine and carried outwards midway between the last rib and the crest of the ilium. By this the skin and subcutaneous cellular membrane were divided; after which the latissimus dorsi, quadratus lumborum, and the lumbar fascia, were in succession cut through. The loose fat, which in persons who are not very much emaciated always exists in this situation, projected at the bottom of the wound, and an attempt was made to push it aside, so as to allow the bowel to come forward; this proceeding, however, failed, and it was necessary to remove several large masses of fat by the knife before the colon became visible. At first the intestine did not project, and the finger was passed into the wound to ascertain the cause: the cellular connections of the colon with the loin were thus broken down, and, on the withdrawal of the finger, the intestine distinctly projected at the bottom of the wound, having a pale, leaden, and greenish hue. It was next attached by four sutures to the skin at the edges of the first incision, and was then opened by a scalpel to the extent of an inch between the threads. A rush of most offensive air took place immediately that the bowel was punctured, and a stream of chocolate-coloured fæces, of the consistence of thin gruel,

welled up from the opening. This continued to flow until more than a large wash-hand basin had been filled, when it ceased. The wound was then covered with pledgets of linen dipped in warm water; a thickly-folded sheet was placed under the patient, and she was turned upon her back in bed, with an inclination towards the left side, so as to favour the escape of matters from the wound. She took a grain of opium immediately, and was supplied with small quantities of beef-tea, gruel, and milk. I should, perhaps, remark that chloroform was not administered in this case, on account of the vomiting, which continued even during the operation. There was very little bleeding, and no vessel required a ligature.

January 24th. Feels greatly relieved by the escape of stercoral matter through the wound. This has not been incessant, but has recurred about every half-hour through the night, and has been always preceded by pain in the bowels. Has had no sickness since the operation; has had some sleep, and has been able to take some liquid nutriment frequently. The expression of her face is still anxious, and she seems to be depressed by the frequent recurrence of colic-like pain. Her breathing is easier; her pulse 106, sharp, but stronger than yesterday; her skin is warm; her tongue whitish and moist; her abdomen is somewhat tender, though much lessened in size. She complains of smarting in the wound, which looks well, and is free from inflammatory action.

25th. Took a grain of opium again last night, and slept tolerably. The bowels act through the lumbar aperture about every hour, the approach of the evacuation being indicated by griping or pinching pain, accompanied by flatulent rumblings. The whole of the fæcal accumulation has not yet been voided, but is escaping, mixed with fresh bilious secretion. To-day she had a scanty discharge per anum, composed chiefly of mucus, but having a little fæcal matter mixed with it. Her pulse has fallen to 90, her tongue is cleaner, and her appetite is increased. The wound looks well.

26th. Is still progressing satisfactorily, and has a more tranquil expression of countenance. The abdomen has become soft, flaccid, and free from tenderness. The evacuations are diminishing in frequency; only three copious ones have been voided to-day, all of recent formation. Their escape was attended by much smarting in the wound. The surface of the divided parts has a greyish, sloughy appearance, and the portions of colon which form the artificial outlet are slightly tumid and congested. As her appetite is good, and there are no febrile or inflammatory symptoms, she is to take meat for dinner. The wound to be dressed with lint dipped in warm oil, and covered with a poultice.

27th. Has a pulse of 80; a cool skin, and a clean tongue; her urine is abundant, and voided at natural intervals. Has passed three soft ochre-coloured stools from the wound, and a small mucous evacuation by the rectum.

28th. She complains much of soreness and pain about the wound, the edges of which are tumid and the surface sloughy. The sutures attaching the bowel to the skin are producing some ulceration, and the parts immediately around the wound are red and irritable. The evacuations, of which she has had three by the artificial aperture and one by the anus, are still preceded by pain and rumbling, and are accompanied by a free escape of flatus. The wound is cleansed by means of a syringe with yeast and water, and afterwards dressed and poulticed as before. The surrounding skin is frequently and thickly smeared with cerate, softened by the addition of olive oil, in order to defend it from irritation.

29th. She feels less pain in the wound, which is cleaner. The cutaneous irritation is also somewhat relieved, and is greatest around the sutures, which, as they were causing ulceration in both the skin and colon, were removed. The bowels have acted in the usual way, *i. e.*, three faecal discharges from the wound and one mucous one from the rectum in twenty-four hours.

30th. Is cheerful and smiling; slept well; and has no complaint excepting an occasional pain in the abdomen,

which appears to arise from flatulence. She has passed a copious, soft stool by the lumbar opening. In the forenoon she had so much pain and bearing-down in the rectum, that, as she could not use the bed-pan, the nurse lifted her out of bed and placed her upon the night-chair, when she expelled, per anum, a little solid with some liquid stool. This, from its colour, was probably a portion of the old accumulation which had remained in the bowel below the artificial aperture, and had been since squeezed through the stricture. The wound is cleaner, and in parts seems disposed to granulate. The lips of the incision made in the colon are nearly an inch behind the integumentary margin of the wound.

31st. After my visit last night, she had much aching pain in the bowels, and a sense of smarting in the wound, succeeded by a very liquid stool from the loin. She took an opium pill, which gave her ease and sleep, and which seems also to have tranquillised the bowels. To-day only one scanty evacuation has been voided by the wound, and none by the anus. The surface of the wound is now clean, but its edges are tumid and faintly reddened. To be dressed with cerate spread upon lint.

Feb. 2d. Has passed two restless nights, her sleep being broken by pain in the belly. She looks consequently pale and depressed, but presents no other unfavorable symptom. After two discharges from the artificial outlet, she was this morning again seized with pain and forcing in the rectum, and expelled a little faecal matter from the anus. In the afternoon she had griping pain in the bowels, and twice voided some dark-coloured mucus from the rectum, besides two thin motions from the wound. To take a grain of opium if the pain is violent.

5th. This morning she took a dessert-spoonful of castor oil, which has given her several copious evacuations from the wound, and she is now easier. Her health improves, and the wound is going on favorably. There is no swelling of the surrounding parts; its dimensions are lessening, and healthy granulations are springing up from the bottom of the

wound, in the centre of which the everted lips of the incision in the colon project a little beyond the granulating surface.

8th. After the costiveness which has been noticed, she attempted to omit her grain of opium, which she had hitherto taken every night. She took it again last night, and had several hours' sound sleep. On each day she has had two or three evacuations by the wound, and one scanty discharge of mucus, sometimes mixed with faecal matter, from the anus, the latter being always preceded by tenesmus and painful sensations. The wound is healthy, and is still contracting. The passage of faecal matter over it now produces only very slight irritation.

15th. Since the last report she has had some irregularity in the action of the bowels, and has been compelled to take castor oil; the secretions are quite healthy. The wound is much smaller, partly from cicatrisation and partly from contraction. The lips of the intestinal orifice are now nearly on a level with the skin.

April 18th. From the last date the patient has not had one bad symptom. She got up in the third week after the operation. Her general health has been good, and her body is well nourished; indeed, I think her fatter than she was before the operation. Her bowels have been relieved regularly through the lumbar aperture, and she has had frequent, although not daily, discharges from the anus, consisting of from a tea- to a table-spoonful of mucus, sometimes streaked with blood, sometimes mixed with broken-down faeces. The wound now presents a pinkish cicatrix, with a small velvety projection in the centre, formed by the everted mucous edges of the aperture in the colon. This opening is large enough to admit the index finger easily. She has been in the habit of covering it with a little simple cerate spread upon lint, over which she has placed a fold or two of soft linen, and then has retained the whole in situ by a bandage. She has, thus guarded, gone about her house, attending to her domestic arrangements, and has experienced no other inconvenience from the artificial anus, than the

occasional and involuntary escape of flatus. As to the faecal discharges, she has rarely any annoyance from them, being forewarned of their approach by slight aching in the belly, and a sort of rolling movement of the bowels, followed by a sense of fulness and distension of the loin, "as though," to use her own words, "something was gathering up there." Within the last few weeks, since the healing of the wound leading to the opening in the bowel, the cutaneous edge of the aperture has, like all newly-formed parts, exhibited a tendency to contraction; and on this account, as well as for the purpose of preventing gaseous and other escapes, I contrived and caused to be made an instrument by which the artificial anus might be closed, and at the same time the further contraction of the cicatrix might be prevented. This apparatus comprises a plug, a shield, and a strap. The plug or nipple is of ivory, smoothly turned, and of a somewhat bulbous form; it projects from a flattened base of the same material, which is attached to a steel plate moulded to the shape of the loin, of which a model was first made to ensure accuracy of adaptation. The inner surface of this plate is lined with a thick layer of vulcanised india-rubber; to its posterior edge is attached a softly-padded leathern strap, which is then carried round the abdomen, and is fastened to buckles on the anterior edge of the shield, so as to retain the instrument in situ. The bulbous nipple introduced into the aperture closes it effectually, and is from its shape little liable to displacement; whilst the abdominal strap fixes the apparatus like a truss, and prevents any derangement of it during the movements of the body. Since its application she has constantly taken exercise out of doors by walking and riding.

Shortly after my last note my patient complained so much of pressure made by the shield upon the crest of the ilium, that, after an ineffectual trial to relieve it by extra-padding on its inner surface, I had the metal plate removed, retaining only the india-rubber, which, being soft and pliable, she has worn ever since without complaint. She has on several occasions had great difficulty in introducing the plug into

the artificial orifice, and at these times upon inserting my finger into the aperture, it was so grasped by the contracted cutaneous margin around the opening into the bowels, as to resemble the sensation produced by having the finger tightly constricted by twine or whipcord. The obstruction to the introduction of the instrument was relieved by warm fomentations, by ceasing to wear the instrument for a day or two, and then resuming it for part of the day. The return of the plug was, however, always preceded by the introduction of a bougie, which, from its length, was more manageable, and could be inserted with greater ease by the patient.

She has continued in this state, and has now (Jan. 1, 1852,) remained perfectly free from all symptoms of intestinal obstruction since the operation, *a period of two years*, and, until about three months ago, she may be said to have been in the enjoyment of perfect health. She has been able to go through any exertion demanded of her: upwards of twelve months ago, she walked a distance of fully four miles to be present at a surgical operation performed upon her son. About three months ago she was seized with sanguineous uterine discharge, accompanied by pain in the lower part of the back, the hips, and the groins, with an occasional sense of bearing down both in the rectum and vagina. I examined the uterus with my finger, and found it to be quite healthy. The rectum remained much the same as at the time of the operation, the bulk of the thickening being perhaps a little increased. Since that time she has suffered an attack of sub-acute peritonitis, and her legs have become cedematous. The abdomen also has increased in size; and her symptoms indicate the probability that the morbid growth in the pelvis which closed the rectum has extended into the abdomen, and is now producing injurious effects upon the contiguous structures.

In this case, after the failure of mechanical efforts to penetrate the stricture, and when the rectum had become impervious, the question arose as to what surgical operation was most applicable for the relief of the patient. Litre's method of forming an artificial anus in the groin seemed to

be open to these objections: *first*, that it involved a wound of the peritoneum, and a consequent danger of rekindling inflammation in that membrane, an attack of which had not long been subdued; *secondly*, that the existence of femoral hernia, although reducible, might impede the steps of the operation, as there would probably be found some small intestine in front of the colon, which might be fixed there by inflammatory adhesions, and might thus shut out the possibility of reaching the large bowel; *thirdly*, that as the site of obstruction was ascertained, there was no advantage in an exploratory incision of the peritoneum, which, as mentioned by Mr. Luke, is a desideratum in those cases of intestinal obstruction in which the nature and situation of the impediment cannot be ascertained. One argument alone was in favour of the inguinal operation, namely, that the bowel would thereby be opened at the lowest possible point above the stricture. On the other hand, the operation of opening the colon in the left loin seemed to present several advantages: *first*, it involved no wound of the serous membrane of the abdomen; *secondly*, the artificial aperture would be sufficiently low down to permit the perfect nutrition of the body, since very few lacteals open upon the villous surface of the lower portion of the large intestines, whilst it was certain that the accumulation of fæces in the sigmoid flexure of the colon below the lumbar opening and above the morbid growth in the rectum would be easily removed by injections from the wound if not expelled simultaneously with the accumulation above the aperture by the contractions of the colon; *thirdly*, I hoped that the greater distance of the artificial anus from the diseased part was not without the probable advantage that the sigmoid flexure of the colon might collapse after being emptied, and thus, by disuse of the bowel immediately above it, that the structural disease in the rectum might become quiescent, and have its progress delayed; and, *fourthly*, there does not appear to be so strong a tendency to prolapsus of the bowel through the artificial aperture when this is made in the loin, as when it is formed in the inguinal region.

Although the operation of opening the colon in the loin in fat persons must cause a deep wound, and although we might be led to anticipate inflammatory action in the loose cellular tissue of the loin or iliac fossa, either as the direct effect of the incisions, or from the possible occurrence of infiltration, yet the textures which are divided are not vitally important, and they are sufficiently organised to favour the process of repair. I have seen three of these cases, and in none of them has any serious inflammation of the divided textures proved a source of subsequent disquietude or trouble, whilst the dangers of extravasation were lessened in each by attaching the bowel to the skin before making the opening into its cavity. This course should always be adopted, unless a tube is left in the wound after the operation to serve as an escape pipe, and as a defence against extravasation, as suggested by Mr. Skey. The connection of the bowel with the integument secures a more free escape of the contained matter, and it averts all danger of exciting local irritation and inflammation by the retention of a foreign body, as an elastic or metallic tube, in the track of a recent wound.

The appearance of the anterior layer of the lumbar fascia when exposed in the course of the operation may induce the supposition that the intestine is reached before the lumbar space is opened. In two of the cases which I have seen the fascia projected at the bottom of the wound; it had a bluish green colour, and looked much like intestine. A little separation of the cellular membrane around the fascia by the finger or some blunt instrument will, however, fail to expose the longitudinal fibres which characterise the large intestine, and a careful puncture of the fascia with the knife will be followed by the protrusion of loose renal fat; indeed, until this loose renal fat is come to, the operator may feel assured that he has not arrived at the intestine. The bulging of this fascia is produced by the fulness of the organs over which it is stretched, and from the same cause a feeling of elasticity, like that of a distended bowel, is imparted to the finger applied to it.

The most important and difficult circumstance in the subsequent management of these cases, is the tendency to contraction in the cicatrix and the skin immediately surrounding the artificial aperture in the bowel; and, indeed, it appears that after these operations, in whatever manner or situation they are performed, the same disposition to a fistulous degeneration of the aperture takes place, as is known to exist when openings are made artificially or by the ulcerative process, so as to establish a communication between the interior of an intestine and the external surface of the body; for examples of which I may refer to cases of gangrenous herniæ, which are followed by the formation of an artificial anus; to those abscesses which sometimes form in connection with the cæcum; and to others occurring in various parts of the abdomen, by which foreign bodies have escaped from the intestine externally. In the present instance, I believe that the tendency to contraction was materially counteracted by the habitual use of the plug, which was a source of great comfort to the patient, inasmuch as it enabled her to go about, and to mix with the world without the accidental escape of the contents of the bowel.

Mr. Luke, who saw this patient with me when in Birmingham a short time ago, suggested the drilling of the ivory nipple forming the plug, so as to allow the escape of flatus without removing the instrument. The aperture in the plug must be small, and would, I fear, be often obstructed. It would also require a second plug in order to prevent the escape of air at inconvenient moments.

The inconvenience of the situation of a permanent aperture for the discharge of fæces from the body in the loin, has been stated as a reason for preferring the operation of Littré to that which has been advocated by Amussat. This objection must be admitted to a certain extent; but it is rather an assumption, the result of reasoning, than a reality met with in practice, and does not appear to be equal to the advantage of avoiding a wound of the serous membrane of the abdomen. After she became able to rise from her bed, my patient attended to her evacuations, as well as to the

dressing of the wound, herself; having withdrawn the plug she caught the discharges in a basin, cleaned the part afterwards, and at a later period, when the wound was cicatrised, introduced the instrument herself, by the aid of a looking-glass, without requiring the assistance of a second person.

In proposing the operation to the patient and her relatives, the inconveniences of the artificial anus were fully explained, and she distinctly understood that the operation would not cure her disease, but that it would remove the immediately perilous symptoms under which she was then suffering, and afford a fair chance of the prolongation of her life for some time. Under these circumstances the operation was performed; and its result has been most satisfactory, since it has already prolonged a life, which must have terminated in a few hours, to a period of *two years*, during which time my patient has been in comparative comfort, and, for the most part, competent to discharge all the duties of her station in life.

POSTSCRIPT, *Aug.* 1852.—After the last report (page 237), the tumour in the abdomen and the dropsical symptoms rapidly increased; the powers of the patient were gradually exhausted, and she died on the *10th of February*, 1852. About three weeks before death, as the strength failed and emaciation advanced, the opening into the bowel in the left loin dilated to an extent which would admit two fingers, and through this opening a considerable prolapse or eversion of the colon took place. When the body was examined, three or four pints of turbid serum escaped from the cavity of the abdomen. The peritoneum exhibited the effects of peritonitis; the intestines were glued together, to the omentum, and to a tumour as large as a man's head, which appeared to emerge from the pelvis. This tumour arose from the right ovary, and consisted principally of cerebriiform cancer. A section of it displayed grey and white brain-like matter, with patches of ecchymosis here and there. In some parts of it there were cysts filled with the yellowish-

brown glue-like matter of colloid cancer, and other cysts from which serum had escaped. In the pelvis another tumour as large as an orange was found. This was the left ovary, in which the same morbid degeneration was going on as in the right. The liver and the mesentery also contained similar deposits. The uterus was healthy. The colon was healthy throughout; below the opening in the left lumbar colon made by the operation, the sigmoid flexure and the rectum were larger than the natural calibre, and contained some ounces of dark-coloured scybalæ. At a distance of about three inches from the anus the rectum was suddenly and completely closed by a dense firm fibrous structure not more than a quarter of an inch in extent; below this part the canal was again pervious down to the anus, but was contracted and empty. The coats of the rectum immediately above the stricture had a healthy appearance, though softer and more lacerable than usual. The artificial opening into the colon in the loin was carefully examined. Its shape was oblong, and its cutaneous margin had a firm cordy feeling. The structures surrounding this orifice, which had given so much trouble by its tendency to contraction, consisted of the skin and a dense fibro-cellular membrane. The muscles and fascia of the loins were all traced to within three eighths of an inch of the margin of the aperture, where they became blended together, and terminated in a mesh of strong interlacing fibro-cellular fibres, which were intimately connected both with the colon and the integument around the artificial opening.

A. B.

BIRMINGHAM;

August 12, 1852.