CASE
OF
OBSTRUCTION OF THE LARGE
INTESTINE,

IN WHICH
THE ASCENDING COLON WAS OPENED WITH SUCCESS:
THE PATIENT DYING THREE MONTHS AFTERWARDS OF ANOTHER DISEASE.

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LEWIS STREET, ætat. 23 years, a farmer of robust frame, has for several years been liable to occasional attacks of diarrhœa, and when he was seven years old, was much troubled with tape-worms, which distressed him for many months.

In September 1843, he ate a large quantity of sloes, and was shortly afterwards seized with violent pain in the bowels, resembling colic, which lasted for thirteen hours; his medical attendant bled him, and administered active aperients. After several copious evacuations he became easier, and in a few days he resumed his usual employment, which he followed without interruption till the middle of January.

About the third week in January the attacks of

colic recurred, and were succeeded by dark-coloured and foetid watery stools, mixed with scybala; the attacks became more severe on the 5th of February, and I saw him for the first time on the 7th. He was suffering from severe pains recurring at intervals of five or ten minutes; the abdomen was greatly distended, but free from tenderness on pressure. The right iliac region appeared to stand out in relief from the distended abdomen; the pains were principally felt in this situation, but extended to the right loin, and to all parts of the abdomen: he had not had any evacuation from the bowels since the 5th, notwithstanding the administration of the most active aperients prior to my visit—pulse 76, soft—tongue moist and clean, skin cool and perspiring.

R. Liq. opii sedat. ℥ xl.

Aq. menthæ ʒiſs ft. Haustus statim sumendus.

R. Extract colocynth. c. gr. v.

Ol. Tiglii ℥ i. ft. Pilula. 3^{tiis} horis sumenda.

Adhib' Enema colocynth. 4^{ta} quaque hora.

February 8th.—The opiate afforded much relief, but after six hours the pains increased, and they have since recurred with great severity at intervals, followed by distressing sickness and vomiting of bile and mucus. The croton oil appearing to increase the pain and sickness, has been discontinued.

R. Opii puri gr. ii.

Hydrarg. chloridi gr. viii. ft. bolus statim sumendus.

Sumat quaque 4^{ta} hora, vel pro re nata Pil. sapon. comp. gr. v.

A soap-and-water injection to be given every three hours.

9th.—He has not vomited since the first dose of the opium, but has had no relief from the bowels : pulse 76, soft and compressible.

An elastic tube was passed to the extent of eighteen inches, and about three pints of soap-and-water were injected, which returned in a few minutes with very small portions of fæcal matter.

From the 9th to the 12th there was but little variation in the symptoms ; the treatment consisted in the administration of opiates and castor oil, with enemata of castor oil and turpentine, but no fæcal evacuations were obtained.

12th.—I was requested to see him in the night. I found him vomiting large quantities of olive-coloured stercoraceous matter, and suffering from most agonizing pains in the abdomen ; he attributed this attack of pain and vomiting to a dose of castor oil, which had been taken a short time previously. One hundred minims of liq. opii sed. were given, which relieved him in half an hour ; and when he was sufficiently composed, the rectum tube was again passed, but without affording any relief.

13th.—Has slept comfortably for several hours, and has not suffered from any severe paroxysms of pain since he took the opiate. Several small portions of fæcal matter, and a large volume of flatus, were brought away by a soap-and-water injection administered this morning, after which the distention of the abdomen was diminished.

From this time to the beginning of April, the size of the belly gradually increased : he also daily suffered many paroxysms of pain ; and although at intervals of one, two, or three days, large quantities of flatus, and a few very small portions of clay-coloured fæces escaped, it was quite obvious that there still existed a partial obstruction in the bowels, since the distention of the abdomen, and the *swelling in the right iliac region*, had considerably increased.

During this protracted illness he was seen by Dr. Bent of Derby, and several of my medical friends, by whom various remedies were proposed, but he obtained relief *only*, from the administration of narcotics. The patient had become much emaciated, was extremely weak, and his general health greatly impaired ; the vomiting recurred almost daily, and the stomach could retain only the smallest quantities of food ; the lower extremities were much swollen, the tongue and skin dry, the pulse frequent and small.

On the 25th March I represented to the sufferer, that relief might probably be afforded by the formation of an artificial anus in the loin by the method of Callisen, as modified by Amussat. He was desirous that the operation should be performed immediately, but he yielded to the wishes of his friends to postpone it for a time.

April 8th.—He has become very much emaciated ; the abdomen is distended to the greatest possible degree ; the convolutions of the small intestines, which appear to be greatly enlarged, can be clearly

traced through the attenuated coverings, and their vermicular motions distinctly observed. The swelling in the right iliac region has so much increased as to present the appearance of great deformity. The integuments in this region are extremely thin, and of a livid colour : there is considerable oedema of both legs ; tongue dry and fissured ; the mucous membrane of the tongue and of the mouth is covered with an aphthous eruption ; he has not retained the smallest quantity of food, and has frequently, since the 4th inst., vomited dark, watery, bilious matter ; there has not been the slightest appearance of fæcal evacuation for four days : pulse feeble and fluttering, varying from 112 to 124 : respiration 16 : urine scanty and turbid, of a dark olive colour, and foetid.

The inefficacy of all other measures having become apparent to the patient's friends, they were now most anxious that the operation, already proposed, should be performed, being convinced that unless relief could be speedily obtained, death must in a few days terminate his sufferings. It was therefore arranged for the next day, when, in the presence of my friends, Mr. Nicholson, Mr. Walker, and my brother, Mr. D. Evans, I proceeded as follows :—

The patient having been laid on the bed with his face downwards, two pillows were placed under the belly for the purpose of rendering the right loin more prominent. I made an incision of four inches across the loin, commencing it at the outer margin

of the sacro-lumbalis muscle, about an inch above the crest of the ilium, and extending it forwards in a direction parallel to the crest. Having divided the latissimus dorsi, and the outer margin of the quadratus lumborum muscles, I proceeded to expose the bowel by opening the fascia ; but in doing so, I also opened the intestine, which was intimately united with the fascia, by dense cellular tissue, without any intervening fat : indeed, no fat whatever was brought into view, as I had been led to expect there would be—a fact that may be accounted for by supposing the extreme distention of the head and ascending portion of the colon, to have pressed upwards the kidney with its circumjacent fat, above the line of incision. Possibly, however, this fat may have been absorbed, as the man was extremely emaciated. The instant the bowel was punctured, a profuse quantity of semi-fluid, clay-coloured fæces was projected with great force through the opening, and continued to escape for a considerable time, so as to amount altogether to more than two gallons. I then enlarged the orifice in the intestine to the extent of one inch in a transverse direction, or parallel to the external incision. The last steps of the operation consisted in connecting the edges of the incision in the intestines, with those of the outer or anterior half of the external wound, by means of five sutures, the inner third of the external wound being closed by a pin, and twisted suture, and covered by a few strips of adhesive plaster. A small piece of oiled lint was then placed between the

edges of the wound in the intestine, and cloths wetted with warm water were laid over the wound. The abdomen, now reduced to its natural size, was supported by a many-tailed bandage, and the patient was placed on his right side in bed, so as to allow of a free escape of the contents of the bowel through the wound.

9 P.M.—He has had no return of vomiting, the sense of distention had ceased, and he feels in every respect greatly relieved: he complains of a smarting pain in the wound, which extends to the right iliac region; pulse soft, regular, 110. Ordered 40 drops of *liq. opii sedativus*.

April 10th.—The pains in the wound and right iliac region were relieved by the opiate: he has had six hours of undisturbed sleep, and he feels much refreshed this morning; is quite free from pain, but complains of extreme weakness, great exhaustion, and craving for food; pulse 100, feeble; tongue moist, covered with aphthæ. The bandage having been much soiled by the discharge from the wound, was removed and replaced by a napkin; the lips of the wound were tender, but not swollen; a poultice of bread-and-water was applied.

Gruel with small quantities of brandy to be taken frequently.

11th.—10 A.M.—He is much exhausted, complains of oppression, slight difficulty of breathing, and a sense of sinking at the epigastrium, has passed urine every three or four hours with great pain in the glans penis; there has been a continual discharge

of liquid fæcal matter from the wound, which he compares to the working of yeast from a beer barrel.

R. Liq. opii sedativ. ʒ xl.

Aquæ menthæ ʒi. ft. Haustus statim sumendus.

R. Tinct. opii ʒi.

Tinct. catechu. ʒfs

Confect. aromat. ʒi.

Decocti cinchonæ ʒviifs

M. ft. Mistura sumat ʒi. quaque 4^{ta} hora.

Beef tea, milk and eggs.—Small quantities of wine occasionally.

April 12th.—12½ A.M.—Has passed a restless night, the difficulty of breathing has increased ; he has been very much troubled with an accumulation of frothy mucus in the trachea ; respiration short and quick, 48 in the minute, and on the slightest exertion it is raised to 55 ; he frequently makes an ineffectual effort to cough ; pulse 112, very weak ; the bowels have been freely relieved through the wound since yesterday ; urine is passed more freely, but still with great pain.

He complains more than ever of the sense of sinking and emptiness at the epigastrium, and says he cannot exist without some solid food : he was accordingly ordered to take two mutton chops daily, and to continue the wine and milk as before.

Rep. Mist. cinchonæ.

Rep. Haust. opii.

14th.—Has continued to improve since the 12th. Has had light yellow evacuations through the wound daily ; urine healthy, and voided without pain ; pulse

80 ; respiration 36. His emaciation is extreme, and has much increased since the operation ; the aphthous state of the tongue and œdema of the legs have quite disappeared ; he breathes more easily, and the mucous rattle is considerably diminished : he has almost lost the feeling of emptiness and sinking at the epigastrium ; tongue clean ; passes urine more easily, but still with slight pain.

18th.—His improvement has been progressive ; his general health is much improved ; wound healthy and granulating ; bowels relieved daily through the artificial anus ; the evacuations are of a light yellow colour ; they are liquid, and contain small particles of imperfectly-digested food.

A long tube was passed up the rectum, and three pints of water injected, which returned in a few minutes, containing numerous small particles of fæcal matter.

Rep. Mistura et Haust. opii.

22nd.—Continues to improve in every respect.

26th.—Since the 24th there has been a continual oozing of a thin serous discharge of a pale colour from the wound, so abundant as to saturate many folds of linen in the course of the day, and for the same period he has complained of sharp pricking pains in the right hypochondrium, extending towards the cæcum, and occurring in paroxysms three or four times a-day.

There have been free evacuations daily from the artificial anus since the 22nd ; the consistence of these is thin, they are of a yellow colour, and of a

fæcal odour ; he feels extremely weak ; his pulse is 100, rather small and compressible.

The posterior part of the wound which was brought together with the pin and twisted suture has healed ; the wound in the intestine is granulating and in a healthy state.

R. *Misturæ cretæ comp.* ℥vii.

Tinct. catechu. ℥ss.

Tinct. opii ℥ss.

M. ft. Mistura sumat ℥i. ter die.

R. *Opium purificatum* gr. i.

Pulv. Kino gr. v.

Ft. Bolus omni nocte sumendus.

29th.—The yellow serous discharge mentioned in the last report, continued to escape without any abatement, until yesterday : he has had copious fæcal evacuations through the opening, daily ; complains of increasing weakness, has less appetite, slight nausea and frequent hiccough ; pulse 110.

Rep. Pil. opii c̄ Kino mane nocteque, et Mistura cretæ.

The wound was plugged with lint dipped in strong solution of alum.

May 6th.—The sharp pricking pains have ceased, the serous discharge has also diminished daily, and is now quite gone. He is gaining flesh, his appetite is good, pulse 94 ; the wound in the intestine is now perfectly united to the skin, but the orifice is so reduced in size as barely to admit a rectum tube of common dimensions. When this was passed about five inches up the ascending colon, it seemed

to meet with an obstacle, and as it caused pain it was immediately withdrawn. The evacuations escape entirely by the artificial anus, to which a plug is adapted.

As he feels no natural desire to defecate, he finds it necessary to remove the plug from the artificial anus four or five times a-day, whilst he is in the horizontal posture, and the fæces being always semi-fluid, easily escape into a vessel placed under the orifice. Injections of warm water have been administered by the rectum every two or three days, but they have invariably returned mixed with small portions of opaque mucus.

June 8th.—Absence from home has prevented my seeing the patient during the past month : his convalescence during that time has been uninterrupted ; the rapidity with which he has gained flesh is remarkable ; for the last fortnight he has taken daily exercise. He still complains of uneasiness in the right hypochondrium, aggravated by exercise, though he is able to walk several miles.

June 18th.—He has become quite fat, feels in good health and spirits, and there appears every prospect that he will soon regain his accustomed strength. The evacuations continue to take place entirely by the artificial channel.

June 25th.—I found him suffering from symptoms of indigestion attended with feverish excitement : has had copious evacuations from the orifice, during the last 24 hours, of an olive green colour, and offensive smell ; tongue dry, pulse full, 110. He

ascribes this attack to a hearty dinner of ham and peas which he took yesterday.

Rep. Mistura cretæ c̄ Tinct. catechu. 6^{ta} quaque hora.

R. Hydrarg. c̄ Creta.

Pulv. Ipecacuan. c. āā gr. v. ft. Pulvis mane nocteque sumendus.

June 27th.—The diarrhoea has considerably abated; the motions have recovered their usual yellow colour, complains much of thirst, tongue dry and red, pulse 98, skin cooler, but not moist: states that for nearly a week he has voided a large quantity of urine, and of a paler colour than usual.

June 28th.—Seven quarts of pale straw-coloured urine, having all the sensible properties of saccharine urine, and of sp. gr. 1040, have been passed during the 24 hours: thirst abated, pulse 100. The patient declares that the thirst, diuresis, &c., had not existed more than a week, and this assertion is fully confirmed by his mother, whose anxious watchfulness rendered her quite alive to the slightest variation in the symptoms. According to her statement, the urine had seldom exceeded 3 or 4 pints daily, and was of the colour of pale amber.

R. Acidi nitrici diluti ʒifs.

Tinct. opii ʒifs.

Decocti cinchonæ ʒviii. m ft. Misturaumat ʒi. ter quotidie.

Rep. Pil. Opii et Kino mane nocteque.

Diet—bread, beef, and mutton; and to drink beef-tea and toast-water.

To avoid sweet, acid, and spirituous drinks ; also vegetables and fruits.

July 1st.—Has passed four quarts of urine in 24 hours, has less thirst, and less craving for food ; pulse 90.

July 4th.—At 2 P.M. I was hastily summoned to visit him, and was surprised to find him in a state of extreme prostration, suffering most agonizing pain in every part of the bowels, frequent sickness, and vomiting of dark grumous matter. The abdomen is slightly swollen, tympanitic, and extremely tender ; he is very restless, and continually changing his posture ; his pulse is feeble and fluttering, 130 ; extremities cold and livid ; expression of countenance, and every symptom, indicate approaching dissolution.

Upon inquiry, I ascertained that on the 2nd inst., after riding a distance of six miles in an uneasy cart, he was extremely fatigued, and shortly afterwards inflammatory symptoms supervened ; but hoping that after a little rest these symptoms would abate, he deferred sending for me.

5th.—Died this morning at 8 o'clock.

6th.—*Examination of the body 23 hours after death.*—The body presented an average development of muscular and adipose tissues.

The artificial anus was a small constricted circular aperture, about $\frac{5}{8}$ ths of an inch in diameter ; its margin was firm and unyielding ; the integuments near the orifice were slightly drawn inwards, and

their connection with the coats of the intestine were so intimate, that the line of union of the tissues could not be defined.

The abdomen contained 6 oz. of serum, of a dirty yellow colour.

The stomach and small intestines were greatly distended with flatus ; the peritoneal surface of the lower two thirds of the ilium was highly vascular, and of a florid red colour.

The mucous membrane of the stomach and small intestines appeared healthy ; the latter contained a small quantity of pale yellow chymous matter.

The cæcum was enormously distended, and was nearly as large as a stomach of ordinary size ; the ascending colon was also much enlarged.

About a quarter of an inch from the commencement of the transverse colon, that is, just beyond the angle formed by the junction of the ascending and transverse portions of the colon, the gut was contracted to about three-quarters of an inch in diameter, and about the same in length ; the contracted portion presented a cartilaginous hardness.

The serous covering of the cæcum, ascending colon, and the first half of the transverse colon, was highly vascular ; there were numerous small patches on its surface, of a deep red colour, which were partially covered with recently-effused lymph.

The anterior three-fifths of the circumference of the first half of the ascending colon were bounded by peritoneum, and the posterior two-fifths by the

fascia covering the lumbar muscles ; and it was in the latter part of the bowel, about half an inch beyond the cæcum, that the artificial anus was formed.

About 2 oz. of dark brown fæcal matter were found in the cæcum and ascending colon ; the mucous membrane was of a deep claret colour, and thickly covered with bloody mucus.

The contracted portion of the colon was almost as hard as cartilage ; it formed a ring about three lines thick, and nine lines broad, and appeared to consist of compact white fibres, arranged irregularly around the intestine ; between the mucous and muscular coats the stricture would just admit a crow-quill ; its inner surface was in a state of ulceration, and presented an irregular granulated appearance without any traces of mucous membrane. The mucous membrane of the first third of the transverse colon was in a state of uniform injection ; the whole extent of the transverse colon was lined with a mucopurulent secretion, of a greenish colour, which was most abundant near the stricture.

The descending and sigmoid portions of the colon were quite empty and contracted, and presented no morbid appearance.

Both kidneys were larger than natural, their structure was not altered, but the cortical substance was rather paler than natural.

Liver, spleen, and pancreas, healthy.

Thorax.—The pericardium was adherent to the heart in its whole extent.

The heart was considerably enlarged.

Both ventricles were dilated, and the walls of the left ventricle thicker than natural; the valves and lining membrane of the heart appeared healthy.

Right lung natural.

The inferior halves of the pulmonary and costal surfaces of the left pleura were connected by long cellular bands. Old cellular adhesions existed on the lower half of the left lung, which was condensed, and of a deep purple colour, apparently from infiltration of blood and serum.

Remarks.—This is the eleventh case on record, in which Callisen's operation (modified by Amussat) has been performed in the adult, in consequence of obstruction in the intestinal canal.

From the previous history of the case, it would appear that the disease had been of slow progress, and of considerable duration. The gradual distention of the abdomen, and the absence of any satisfactory evacuation from the bowels during a period of seventy days, served to give strength to the opinion, that there existed a progressively increasing obstruction in the bowels, which, from the small amount of faecal matter evacuated during that period, approached very nearly to a case of complete obstruction. The operation was suggested to the patient, on the 25th of March, as the only measure calculated to afford relief; but in consequence of the interference of his friends, it was not performed until the 9th of April, when the extreme emaciation, the great prostration of strength, the aphthous state of the mouth and fauces, and the œdema of the legs,

indicated the alarming condition of the patient ; and it is impossible to imagine a case more unfavourable for the performance of the operation.

The enormous discharge of two gallons of fæcal matter through the artificial anus, serves to prove the degree of distention of which the cæcum is capable.

The patient's improvement was very gradual ; but he was so much recovered in health in two months after the operation, that he was enabled to walk several miles.

On the 18th of June he was reported to have become quite fat, and at that time there appeared to be every prospect of his restoration to health. But our hopes were disappointed by the imprudence of the patient in regard to diet and exercise.

On the 25th of June I found him suffering from diarrhœa, with symptoms of dyspepsia : on the 28th a diabetic state of the urine was observed, and on the 2nd of July symptoms of peritoneal inflammation supervened, which appear to have been the immediate cause of death. As far as the operation is concerned, the case was successful ; and if the patient had possessed a sound constitution, there is reason to believe that he might have enjoyed a tolerable share of health, but subject to the inconvenience attending an artificial anus, as the obstruction of the bowels was so complete as to preclude all hope that the continuity of the canal might ultimately be re-established.