

A SUCCESSFUL CASE

OF

22

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OR

EXCISION OF A STRICTURE OF THE
DESCENDING COLON

THROUGH AN INCISION MADE FOR A LEFT
LUMBAR COLOTOMY.

WITH REMARKS.

BY

THOMAS BRYANT, F.R.C.S.,

SURGEON TO, AND LECTURER ON SURGERY AT, GUY'S HOSPITAL.

Read March 28th, 1882.

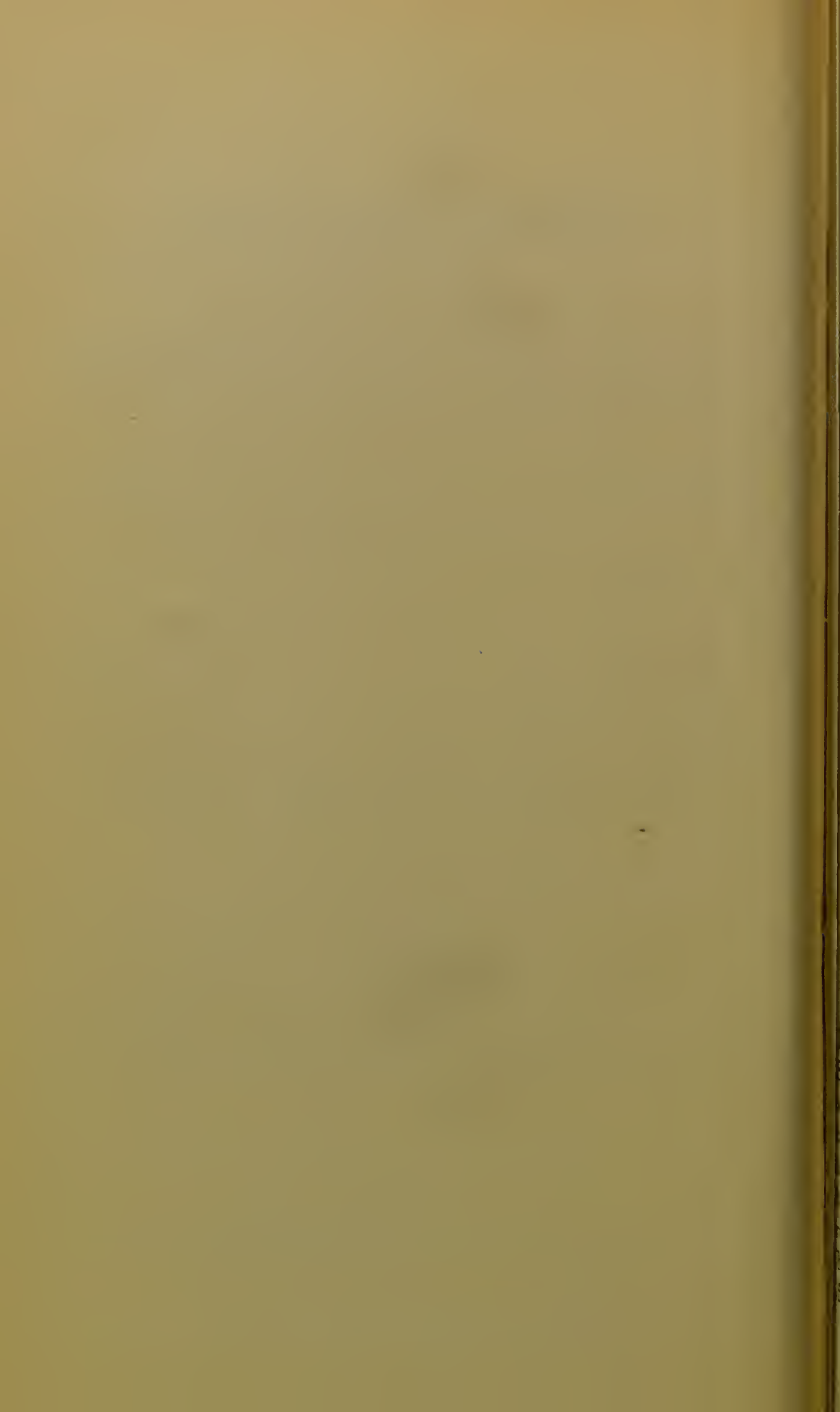
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Received January 19th—Read March 28th, 1882.

ON September the 8th, 1881, I was called to visit Mrs. D—, a widow, æt. 50, residing upon the coast of Suffolk, who was supposed to be dying from some unknown bowel trouble. She had had thirteen children, and without being an invalid had never been strong, and had never had any serious illness. For some years, however, she had been subject to constipation, for which she had taken, rather freely, mineral purgative waters. She had once, three years ago, gone three weeks without any action of the bowels. Her present illness began, as kindly

reported to me by Mrs. Garrett Anderson, about the middle of July, 1881, after a journey to London. The constipation became complete and was attended with considerable abdominal pain, coming on in paroxysms, but no fever. These symptoms continued for the two weeks she was in London, and during this time there was not only no action of the bowels but no passage of flatus, mucus, pus, or blood.

When she returned home she consulted her local medical attendant, who prescribed calomel internally and turpentine enemata, but without benefit. At this time vomiting appeared and lasted off and on for a week, accompanied with paroxysmal abdominal pain. Still the bowels were obstinate, no action taking place, and no passage of flatus. The patient became very weak from want of food and refused nutrient enemata.

On August 9th she passed into the hands of Mrs. Garrett Anderson for treatment. At this time Mrs. D— had had no action of the bowels for three weeks, sickness was frequent, and at times the vomit had a yellow fæcal appearance. Colicky abdominal pain came on at times and the abdomen was much distended. There was neither fever nor marked abdominal tenderness. The rectum on examination was found empty and flaccid, and no stricture could be felt. Enemata were given, but only about half a pint could be thrown up, and this was not retained, and always returned as it was injected.

During the next four weeks three very small evacuations were obtained. Sickness was only occasionally present and not severe. There was no fever and not much colicky pain. The abdomen became very large, coils of intestines being often visible. The patient was fed by small nutritive enemata. The urine was very scanty, loaded with lithates, and contained some bile and albumen. The patient had been treated with belladonna.

With this report I saw the patient on September 8th. She was in bed with a painfully emaciated and distressed

countenance and feeble pulse. Her abdomen was immensely distended, and through the thin abdominal parietes large coils of inflated bowels could be distinctly seen in which peristalsis was very visible. No one coil seemed tighter than another. No tumour could be felt. On examining the rectum the bowel was found empty and free from secretion or even a fæcal odour. No disease could be made out by the finger. The patient was unable to take the least nourishment, everything being immediately rejected.

The diagnosis was not difficult. It was clearly one of organic stricture, although the exact position of the stricture was not so evident. All probabilities, however, pointed to it being in the large intestines and probably in the descending colon. And the fact that the left loin was as full as the right encouraged this view.

With this diagnosis the treatment was not doubtful, for it was clear that relief could only be looked for by the operation of colotomy, since eight weeks at least had passed without any discharge that could be called relief to the bowel having taken place, and without even the passage of flatus. The feeble condition of the patient was, however, unfavorable for prognosis.

Consent for the operation having been obtained, arrangements were made for its performance on September 10th, when it was undertaken. Mr. Clover kindly gave the anæsthetic, and Dr. Collins, of Saxmundham, and Mrs. Garrett Anderson, assisted.

I started with the intention of performing a left lumbar colotomy, and for that purpose made my usual oblique incision midway between the ribs and crest of the ilium, with its centre corresponding to the outer border of the quadratus lumborum muscle, one inch behind a vertical line drawn from the centre of the crest of the ilium. The bowel was exposed without difficulty, and a hard indurated mass of new growth was then felt at the fore part of the wound, attached to what was supposed to be the descending colon passing downwards from the loin to the pelvis.

I opened the bowel and stitched it to the integument with six sutures, under the conviction from its relative position to the diseased mass that I was above the disease. No motion or wind, however, passed through the opening, and the finger after its introduction through the artificial opening into the bowel returned unsoiled. A closer examination was consequently made, and in separating the edges of the artificial anus, a sudden change in the position of the parts took place and there appeared through the artificial anus a growth which looked more like the neck of a uterus with a dilated os than anything else. Into this I passed a catheter, when wind and fæces at once escaped, proving to demonstration that the opening into the bowel which I had made was below the disease, although I had opened what from its position appeared to have been the upper part of the bowel. The artificial anus I had made was then at once unstitched and the true position of the parts carefully examined, and finding on manipulation that the strictured bowel was free and movable, that the stricture was an annular one, and that it did not involve more than one inch of the bowel, I determined to resect it and to fasten the divided ends of the bowel to the lumbar wound, and this I subsequently executed without much difficulty.

I commenced the operation by drawing the diseased part of the bowel well out of the wound and giving it in charge of Dr. Collins to hold. I then opened the distended upper bowel transversely about one inch and a half above the seat of the stricture, stitched the anterior border of its walls to the upper lip of the skin wound with three sutures, and allowed the bowel gradually to empty itself of quarts of slate-coloured liquid fæces. I took care, also, during this fæcal drain, to keep the anterior and lower surfaces of the wound clean. When the fæcal discharge had ceased or nearly so, and the parts had been cleansed, the section of the remaining two thirds of the calibre of the bowel was made; and I did this leisurely and carefully with a pair of scissors; by half-inch cuts

through the bowel, twisting bleeding vessels as they were divided and stitching each portion of the bowel as cut to the lips of the lumbar skin wound, carefully sponging the wound as I progressed. Indeed, it was by this same gradual process of dividing, sponging and stitching, that I separated the strictured segment of bowel from all its attachments (*see* Plate V, fig. 1), and so shut out the peritoneal cavity and completed the operation, and I may add that beyond the necessity of care I found but little difficulty in its performance. The upper orifice of the lower end of the bowel I secured at the lower lip of the wound in front of the artificial anus and in close contact with it (*see* Plate V, fig. 2). I did this with the view of facilitating the restoration of the continuity of the intestinal tract and closure of the artificial anus at some future time should the patient feel disposed to submit to the operation and the measure appear desirable, which I am disposed to question.

The case, subsequent to the operation, may be said to have done well, for a slow but steady convalescence followed and the patient on March 7th herself wrote that she was "miraculously well." I give the daily report in the words of my friend Dr. Collins, who watched the case for me with much skill :

"The operation was at three in the afternoon.

"September 10th, seven hours after operation.—Recovered well from shock of operation, but suffered considerable pain in wound. Took opium gr. j.

"11th (1st day, 11 a.m.).—Temp. $99\cdot2^{\circ}$, pulse 113, resp. 80. Took three tumblers of milk and brandy during the night and slept a good deal at intervals.

"12th (2nd day, 1.30 p.m.).—Temp. 101° , pulse 116, resp. 34. No signs of peritonitis or secondary hæmorrhage. Doing fairly well. Two pints of urine drawn off at four different times. It was slightly albuminous. 10.25 p.m.—Temp. 101° , pulse 110, resp. 32. Wound looking well.

"13th (3rd day, 12.15 p.m.).—Temp. $102\cdot6^{\circ}$, pulse 118,

resp. 30. 10.20 p.m.—Temp. 102.4° , pulse 112, resp. 28. Patient very weak and exhausted, bowels having acted continually since morning, the dressing being changed fourteen times. Wound looking rather dusky. Dressed only with oakum. Ordered chalk and opium mixture every four hours. I may here mention that the patient is very unmanageable, it being quite a battle to make her take either medicine or food of any description. I never met such a woman in all my life.

“14th (4th day, 12 a.m.).—Temp. 101° . Bowels only acted slightly since last night. Wound looks much better and healthier. 10.30 p.m.—Temp. 103° , pulse 104. Bowels again very loose and slimy, and the patient very weak, taking hardly two tumblers of milk and brandy in the twenty-four hours. Very intractable. Wound looking rather red at edges.

“15th (5th day, 12.15 p.m.).—Temp. 102.4° , pulse 110. Wound looking rather ashy. I removed the two superficial stitches. The wound gaped considerably and was evidently going to slough. Dressed it with lint soaked in solution of carbolic oil, 1 in 20. 11 p.m.—Temp. 101.2° , pulse 109. Wound washed out with strong solution of carbolic acid and a charcoal and linseed poultice applied, and ordered to be changed every four hours at least. Opium gr. j 4tis horis.

“16th (6th day).—Pulse 104. Some sloughs separating at outer end of wound. Half a pint of milk with $1\frac{1}{2}$ tablespoonful of brandy was all the nourishment that could be got down. The opium could only be got down at irregular intervals and with great trouble. Mouth becoming aphthous and pulse very weak. 6 p.m.—Temp. 99.4° , pulse 110. Sloughs separating. Still real difficulty in getting down nourishment.

“17th (7th day, 2 p.m.).—Temp. 99.4° , pulse 110. Wound more healthy, washed well with solution of iodine and water. One drachm of Tinct. Iodi rubbed up with each poultice. 10.50 p.m.—Temp. 98.6° , pulse 100. Had great pain in wound. Sloughs were separating well,

so discontinued iodine. Patient weak and taking little nourishment. The mouth and throat have been painted frequently with mixture of borax and glycerine.

“18th (8th day, 12.30 p.m.).—Temp. $98\cdot8^{\circ}$, pulse 108. Mouth better, taken more nourishment and enjoyed it. Wound cleaning. The orifice of the artificial anus seems very deeply placed. Wound dressed with lint soaked in 1 in 20 solution of carbolic oil and poulticed as before. 11 p.m.—Temp. 100° , pulse 104. Pulse feeble. Wound indolent looking; dressed as before.

“19th (9th day, 12 noon).—Temp. $99\cdot4^{\circ}$, pulse 100. Pulse stronger. Taken one drachm of brandy every hour and sixteen ounces of milk since last night. Ordered Pil. Quin. Sulph. gr. ij every two hours. 11 p.m.—Temp. 99° , pulse 104. Wound looking more healthy. Has taken half a cup of beef tea twice to-day besides milk and brandy.

“20th (10th day, noon).—Temp. $98\cdot4^{\circ}$, pulse 100 and stronger. She has taken more nourishment. The wound is looking healthier and healing up rapidly from bottom. Still dressed with lint and carbolic oil.

“21st (11th day, 1 p.m.).—Temp. $98\cdot8^{\circ}$, pulse 100. Had diarrhoea all the night, stopped by chalk and opium. Pulse fairly strong. Wound still healing. Nourishment taken better. Taken ten quinine pills during the last thirty-six hours with only slight headache. Pills only to be given now every six hours.

“22nd (12th day, 3.30 p.m.).—Temp. 98° , pulse 104. Feeling better. Wound healing well; dressed with lint and carbolic oil 1 in 30.

“23rd (13th day, 5.15 p.m.).—Temp. 99° , pulse 100. Quinine pills discontinued since mid-day yesterday as patient refused to go on with them.

“24th (14th day).—Temp. $98\cdot6^{\circ}$, pulse 101. Wound only half depth and width. Faeces pass out freely from artificial anus and without pain.

“25th (15th day).—Temp. $98\cdot6^{\circ}$, pulse 104. Wound healing well.

“26th (16th day).—Temp. 99·4°, pulse 108. Wound still healing up rapidly, but patient only takes liquid food, brandy and milk, and a very small quantity of ox-tail soup. Considerable discharge of sweet pus from a small passage running along the outer side of the lower bowel. A probe passed about two inches into the small passage and a small strip of lint soaked in carbolic oil kept in opening.

“27th (17th day).—Temp. 98·8, pulse 110. Going on well. Still a considerable discharge of pus from the opening mentioned.

“28th (18th day).—Temp. 98·8°, pulse 110. Going on the same. Wound healing but looking pale. Patient has taken some baked custard the last day or two. Throat still relaxed. Has been at last induced to use an astringent gargle which has been made up for the last week.

“29th (19th day).—Temp. 98·8°, pulse 112. Patient much stronger. Pus discharge much less. Has taken much more nourishment and the wound looks consequently a better colour. Some solid food has been taken, the gargle having strengthened the throat. Wound healing kindly, is now only about one third the size; dressed with red lotion. The patient would not knowingly take iron in any form, so ordered Quin. Sulph, Zinci. Sulph., Ferri Sulph., āā gr. ss. in a pill to be taken three times a day.

“October 19th (39th day).—The artificial anus well established. The wound has cicatrised, and fæces pass freely through it. Her appetite has been very good, and patient is up daily, and has been growing quite fat, and says she feels better than she has for more than a year. Frequent enemata have been given by the natural anus, and a teacupful of fæces, like marbles, has been brought away per anum. These must have been impacted in the lower end of bowel for some time.

“31st.—Patient has been going on well. Enemata administered per anum passes through lumbar opening;

proving its present patency. Artificial anus is well formed.

“November 10th.—Patient is going on most satisfactorily.

“December 2nd.—Patient continues to go on well, and slowly regains strength. She looks very well indeed in the face, and eats, drinks, and sleeps well; she goes into the drawing-room daily. About every four or five days there is some discomfort in the rectum, and an enema brings away about half a dozen pieces of fæces as big as half marbles. The bowels are well relieved by the artificial anus, and the motions are always solid.

“No persuasion will induce our patient to take any tonic.”

Remarks.—I have brought this case before the Fellows of this Society to introduce to their notice an operation which I believe to be applicable to certain forms of stricture of the descending colon; and since the patient upon whom it was performed is now well, her disease having been removed, I trust I shall not be considered injudicious when I urge its adoption.

The case before you is the only one in which I have attempted the operation I have described, though I may say that the idea of removing an organic stricture of the large bowel through the wound made for a left lumbar colotomy suggested itself to me several years ago, after having seen, both in operations of colotomy as well as in the post-mortem room, many examples of annular or localised stricture of the bowel which were freely movable in the peritoneal cavity, free from all attachments, and within easy reach of the surgeon's fingers through the lumbar wound. For it is in these cases, and in these alone, that the operation is possible.

In what proportion of cases of stricture of the descending colon this operation is applicable, it, possibly, may be difficult to decide, but since pathological inquiries tell us in very decided language (*vide* Table A.) that in chronic intestinal obstruction the seat of stricture in three out of

TABLE A.—*Causes of Intestinal Obstruction, excluding Hernia.*

Being an analysis of 124 consecutive cases extracted from the post-mortem records of Guy's Hospital, by Dr. Hilton Fagge, from 1854 to 1868 ('Guy's Rep,' 1868); and Mr. Russell, from 1868 to 1876 (unpublished).

Guy's cases. 33	ACUTE OBSTRUCTION	{ <ul style="list-style-type: none"> 1 Internal hernia. 7 Twists (volvulus). <ul style="list-style-type: none"> 14 Lymph. 6 Diverticula. 2 Appendicæci. 2 to neck of hernial sac. 1 from pedicle of ovarian tumour. 25 Bands. 	{ <ul style="list-style-type: none"> 3 Faecal impaction. 3 Mechanical pressure of tumours. 	{ <ul style="list-style-type: none"> 47 Stricture <ul style="list-style-type: none"> 2 Small intestine 45 Large 23 Matting together of intestinal coils from peritoneal and cancerous disease. (Contractions.) 	{ <ul style="list-style-type: none"> 33 Rectum and sigmoid flexure 7 Transverse colon with hepatic and splenic flexures 5 Cæcum or ileo-cæcal 	Middlesex cases. 28 large intestines, 3 small.	Pathological Society. 31 large intestines, 1 small.	General Total. 78 19 7 104
15	INTUSSUSCEPTIONS	{ <ul style="list-style-type: none"> 2 Rectal. 7 Ileo-cæcal. 6 Small intestine. 						

Analysis of 63 cases of stricture of intestines as given in a paper by Coupland and Morris. ('Brit. Med. Journ., Jan. 26, 1878.)

every four cases is located in the descending colon, and that about one third of these cases is of an annular or local character, I am disposed to think that the instances in which this operation may have to be considered are not few.

It should also be remembered that of all strictures of the large intestines other than those clearly due to inflammatory or syphilitic causes, the annular approaches in its histological as well as clinical features the simple growths; and that whilst, on the one hand, the histologist describes them as being composed of epithelial, cylindrical, or adenoid elements, the pathologist will demonstrate the hard clinical and pathological fact that such growths are rarely attended with any metastatic or other disease, and are for the most part local.

Under these circumstances I submit that the expediency of removing the strictured bowel, where practicable, is more than demonstrated, and I think I may add that the method of doing so by the operation I have brought under your notice will prove to be the best means.

Should this opinion be accepted, some change in practice may be required, for it would be wise to entertain the operation of excision of the stricture at an earlier period of its progress than it has hitherto been the custom for physicians or the majority of surgeons to entertain that of colotomy. Since the operation of excision of the stricture would be more readily performed when the bowel above the stricture was undistended and comparatively healthy than when it was full of retained fæces and probably ulcerated from over distension. The operation, moreover, when performed under these more favorable circumstances, would be safer, since with healthy bowel above and below the strictured segment the surgeon may with more confidence draw the diseased portion upwards from the pelvis or downwards and backwards from the splenic region, and consequently remove it with greater safety and facility.

The consideration of the operation of excision in any

given case will consequently have an important bearing upon that of colotomy, and give a help to that operation where it is sadly needed. For it will encourage physicians and surgeons to entertain the question of operative relief by colotomy or excision (colectomy) as soon as the diagnosis of organic stricture of the descending colon has been made, and not to postpone the consideration of the one or other operation till, as I have heard it advised, obstruction has existed for six weeks, when the chances of success are small.

In the case I have recorded it is true the chances of obtaining a good result even by colotomy were very remote, since it had been allowed to drift eight weeks with practically complete obstruction until the powers of the patient were almost exhausted, and it was probable that some secondary changes had taken place in the cæcum or distended colon.

I consequently advance the case rather as a warning than as an example, and to show how, even under the most unfavorable circumstances, the operation of excision (colectomy) or colotomy may prove successful.

I would therefore ask my medical as well as surgical friends to accept this operation of excision of a localised stricture of the descending colon as an additional means of giving relief and possibly of curing a certain proportion of cases of stricture of the bowel. To consider it in all cases of stricture of the descending bowel not rectal, and to do so as soon as the diagnosis of mechanical obstruction has been made, and before the symptoms of obstruction are a source of anxiety or of a threatening character.

I would ask the surgeons to examine every case in which the operation of left lumbar colotomy is entertained, with the view of determining the feasibility of excising the stricture before establishing an artificial anus. And I would suggest that the different steps of the operation should be carried out in the way I have described.

I cannot regard the operation I have performed in a much more serious light than I do a colotomy in which

the peritoneum has been injured. Whereas the prognosis in the two cases varies greatly, for after the operation of excision the hopes of a cure may with reason be entertained, whereas after a colotomy performed under the same conditions the operation can but postpone the evil day and not avert it. The operation of colectomy being curative and that of colotomy palliative.

Dr. Goodhart has kindly made a careful examination of the preparation of resected bowel and reports as follows :

“The part sent to me for examination is the whole circumference of the bowel with some of the surrounding subperitoneal fat. One half of it measured lengthwise is puckered and indurated, forming a hard, nodulated mass an inch or so in length. One of the free ends of the specimen shows the mucous membrane thickened and granular looking, and the submucous and muscular coats converted into tough fibrous-looking material. The bowel being tightly strictured at this part.

“A vertical section of the tissues concerned in the stricture was made and examined microscopically and shows appearances such as are depicted in the two accompanying drawings (*see* Plate VI, figs. 1 and 2) from the pencil of Miss Alice Boole. Alveoli are spread through a predominating fibroid tissue, and these are lined or filled with epithelial cells, many of them sufficiently columnar to allow the growth to be called a columnar epithelioma, but many of them also of a somewhat less specialised type, such as are found in many cancers. The amount of fibrous tissue is, however, the dominant feature of the growth.

“The disease is by no means an uncommon one. I am not prepared to state the numerical proportions of such to a more diffused and ulcerating form of cancer of the sigmoid flexure, but this I know that it is a common experience to find obstruction of the sigmoid flexure which to the naked eye is strictly alveolar and puckered like this, giving the appearance of a ligature tied round the bowel, and which cannot be said to be cancerous from the coarser features of the disease. It is equally

certain that these cases, when examined microscopically, prove to be cancerous, and they generally show similar features to those depicted from this case.

“I should, therefore, be quite prepared to go with the author of the paper in insisting that there is a class of cases, and not a small one, in which the entire disease might be removed, so far as the extent of the disease is concerned,—if surgery should decide that the operation is feasible and safe.

“I may add that from what I have seen in the dead-house, I believe that the operation would be feasible in not a few cases, though in the case of females the frequent adhesion of the puckered part to the ovary would have to be borne in mind. And I believe, too, that the existence of such a condition can be found occasionally by the absence of diarrhoea or rectal discharge, by the absence of any symptoms save troublesome constipation until the supervention of *complete obstruction*, which comes about suddenly by a twist and falling over of the distended bowel above the stricture, as in this case, rather than by the *stricture* itself.”

Note—On August 4th I saw, with Dr. Collins, Mrs. D—, who had been suffering for some weeks from symptoms of steadily increasing obstruction which were due to a rapid closing of the artificial anus. This I dilated with my little and index fingers, and subsequently with a short conical bougie half an inch in diameter at its apex and one inch at its base. At the same time some lumps were felt in the abdomen, which were probably fæcal. Since this dilatation was effected, I have learnt that good motions have passed and that Mrs. D— is relieved.



DESCRIPTION OF PLATES V AND VI.

Stricture of the descending Colon. Portions removed through incision for a Left Lumbar Colotomy (THOMAS BRYANT, F.R.C.S.).

PLATE V.

Fig. 1.—Portion of descending colon. (*a*) Lower orifice of stricture.

Fig. 2.—(*a*) Upper end of lower bowel before its closure by sutures; (*b*) artificial anus.

PLATE VI.

Fig. 1.—Columnar epithelioma, microscopical section. Hartnack, obj. 3, ocu. 3.

Fig. 2.—Ditto, ditto. Hartnack, obj. 3, ocu. 4.



Fig 1.

Fig 2





Fig 1.

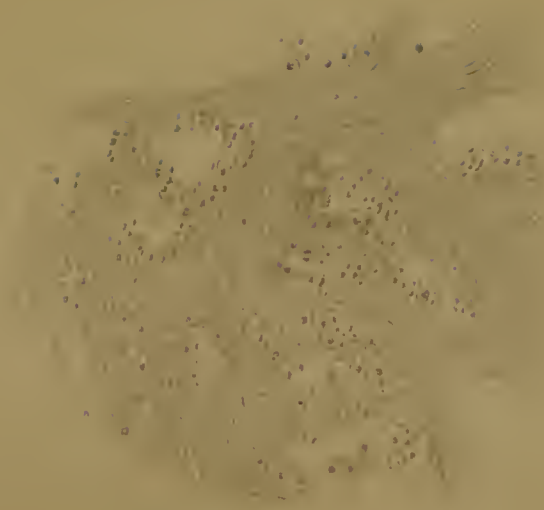
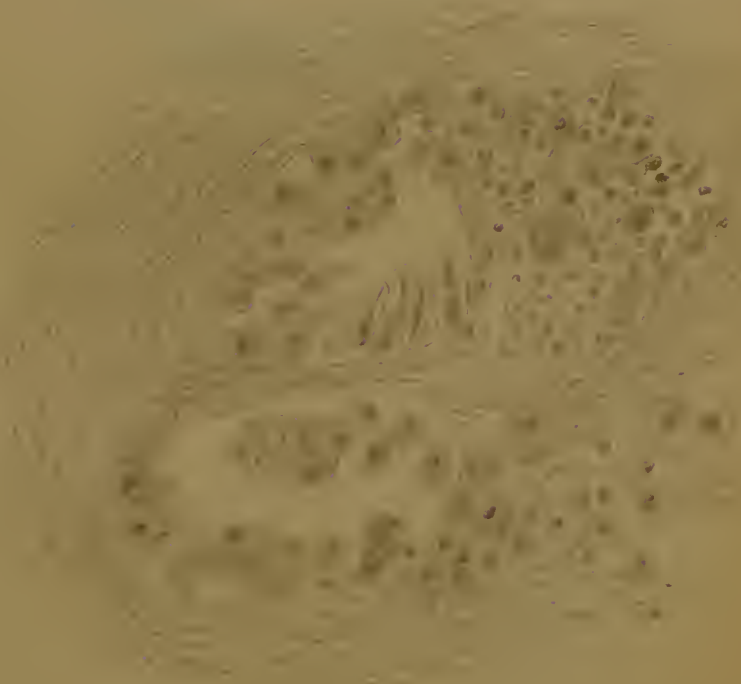


Fig 2.





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