it does not follow that in other cases in which the secretion is very moderate and localised, and not very virulent after thorough examination, cleansing of the focus of infection, and removal of the exciting cause it should be necessary to provide elaborate drainage for a secretion which the peritoneum itself can dispose of easily.

Another conclusion follows upon these considerations, if they be correct, namely that in those cases in which we open the abdomen for septic peritonitis, and regard drainage as indispensable, we may in many cases remove the tube at a much earlier date than has hitherto been the custom. The tube will have done all that is required of it in many cases in the first twenty-four hours, and though there may still be a certain amount of effused fluid to be got rid of, what does not leak away through the chink left by the removal of the drain, may often be left safely to be disposed of by the peritoneum. But only often, not always. It is for the surgeon of large experience in abdominal work to determine for each case which line he will adopt; but I would suggest again that where he can dispense with the drain tube he will find it a great gain.

OBSERVATIONS ON EXCISION OF THE RECTUM FOR MALIGNANT DISEASE, DESCRIBING A METHOD OF OPERATION.¹

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THE operative treatment of malignant disease of the rectum has been for many years a subject of interest to surgeons, and of the different methods recommended for dealing with such cases none has had more vicissitudes than that of excision of the diseased portion of bowel and implicated structures surrounding it. Since the introduction of this operation by Paget in 1763 there have been periods when it held an acknowledged position, as there have also been periods when it was considered inadmissible. The reason for the disrepute into which this operation fell for so many years is evidently due to its adoption in improper cases. It is, however, my belief that, with our advance in surgery and a more accurate knowledge of the special circumstances which indicate the different methods of operation, its value will be more generally recognised. My object in bringing this subject forward is to state what I consider to be the best method of dealing with a certain class of such cases.

CASE I.—Mr. J. K., aged 58 years, was recommended to me by my friend Dr. Cooper Stawell, of Bagnalstown, in September, 1891, with the following history. For a lengthened period, although his bowels were relieved normally in the morning, he had a great desire to go again about 10 P.M., when he passed a small quantity of mucus. Some seven months since he noticed blood on the stools, and a little blood also appeared with the mucus when he went in the evening. From this time he had great desire at intervals, it being frequently necessary to relieve the bowels seven or eight times during the night, blood and mucus passing on each occasion with a feeling of soreness near the anus. For the month before I saw him he had pain and difficulty during micturition, it being necessary to stand and force for some time before the urine came. On examination I found a hard irregular growth implicating the anterior aspect of the bowel, extending from slightly above the upper border of the internal sphincter for about 3 inches upwards on the anterior and lateral walls of the bowel, but not implicating its posterior wall.

Operation being recommended and agreed to, the patient was retained in the lithotomy position by Clover's crutch, and an incision was made in the median line from the anus to the tip of the coccyx. The bowel was now separated in its entire circumference by a scissors, keeping below the diseased structures and above the attachments to the bowel of the levator ani and the sphincter muscles, when the bowel came down without trouble, except on its anterior aspect, where it was intimately attached to the prostate gland, off which I separated it by careful dissection with a blunt knife and scissors, when there was no difficulty in drawing the bowel down and removing the diseased portion. There was little hæmorrhage, as clip forceps were applied to each portion of the bowel before it was removed. Catgut sutures were now passed through the bowel about an inch above its cut extremity, including all its thickness, with the exception of the mucous coat, and then through the pelvic fascia and levator ani muscle; this closed off the superior pelvic space, and fixed the bowel in its position, thus hindering undue dragging on the second line of sutures which were applied, connecting the cut extremity to the attachment of the levator ani, the sphincter muscles and mucous membrane which I had left below when originally separating the bowel. A drainage tube was now placed into the space behind the bowel and the incision from the anus to the coccyx closed. After the operation,

the patient progressed satisfactorily, the bowels being kept from moving by opium until the seventh day, when the temperature showing an upward tendency, a dose of castor oil was given, after which recovery was uninterrupted, the patient being allowed out of bed a fortnight after operation, and being allowed home a week later, having full control over his bowels. I have on several occasions since heard of this patient from Dr. Stawell, who reports that he is in perfect health. Microscopic examination showed the tumour to be cylindrical epithelioma. It is now three years and six months since operation.

CASE II.—In June, 1891, I was consulted by Mrs. H., aged 51 years, as to a pain in the lower part of her back, from which she had suffered for some years; this had become very severe for the past fortnight, being continuous even when lying down, although much worse when sitting or standing. Her bowels were confined, and, seven months before seeing me, she noticed a swelling at the anus, and pain on going to stool, which was much worse when the bowels were confined; she also noticed blood on the stools. On examination I found internal piles, one of which was ulcerated, but could ascertain no other abnormal condition. Under treatment she rapidly recovered and returned to the country.

I next saw Mrs. H. in June, 1892, when she informed me that she had had a severe attack of influenza in January, after which she was greatly debilitated, and had a severe pain in her back, with a gradually increasing difficulty in obtaining movement of the bowels. When the bowels were relieved she had a feeling as if some obstruction existed, and had a severe burning pain for some time, after which a considerable quantity of blood and mucus passed. Believing her symptoms to be due to the influenza she consulted a physician, who ascertained the presence of a tumour in the bowel. She was then seen by a surgeon, who agreed in the diagnosis of malignant disease but declined operation, owing to the fixation of the tumour to the sacrum. The patient desiring my opinion I examined her, and found a well-marked growth, implicating the posterior wall of the bowel, between 2 and 3 inches from the anus; this growth lay between the rectum and the sacrum, on which it could be slightly moved. The mucous membrane over the tumour was ulcerated to about the size of a crown piece. Believing operation to be feasible I requested a consultation with Mr. Kendal Franks, who agreed with my opinion.

The operation was performed in a similar manner to that already described. When the tumour was reached I found it attached to the sacrum by cellular tissue, but had no difficulty in separating it, the diseased portion being removed, the bowel was drawn down and deep sutures applied as in the former case. When the second row of sutures uniting the extremities of the bowel were applied, I found a considerable cavity remained between the bowel and sacrum, a drainage tube was passed into this and the wound from the anus to the coccyx sutured, the tube being allowed exit at the posterior extremity of this incision. For some days after the operation the patient was very restless. The stitch nearest the anus tore through, and a large quantity of serous discharge came through the drainage tube. A purgative was given on the eighth day. She was allowed out of bed on the seventeenth day, and went home on the thirty-first day after the operation, having all but perfect control over her bowel, the only subsequent trouble being that for a short time a slight mucous discharge came from the bowel at its posterior aspect where the suture tore through. This patient has since communicated with me, and states she has no difficulty with her bowels, and that her health has greatly improved. Two years and nine months have now elapsed since operation.

I will now direct attention to certain points in connection with the operation. In these cases it is of importance that the peritoneal cavity be not opened; this may be usually attained by remembering that the peritoneum usually covers the anterior aspect of the rectum in the male to within 3 inches of the internal sphincter, while in the female you cannot be sure of more than 2 inches, although there may be much more in either case. At the posterior aspect of the bowel you can count on 4 or 5 inches. As a practical rule I consider that if the surgeon can, by digital examination, reach above the malignant growth, the peritoneum should be safe.

The great objection to excision of the rectum by the usual operation is the incontinence owing to the removal of the sphincters and the importance of overcoming this sequela is apparent; and to point out how this may be attained I will describe the usual operation, and compare it with the method employed in the foregoing cases.

The usual operation is commenced by an incision from the rectum to the coccyx, called by the old writers "the key to the operation;" then incisions were made round the anus meeting in front, the attachment of the levator ani to the rectum was cut and the bowel with sphincters drawn down; thus most of the external sphincter and the entire of the internal sphincter were removed, and incontinence, which was often permanent, resulted. Further the remains of the bowel not being usually united to the skin, owing to the frequency with which the sutures tore through, the raw surface thus left to granulate was a frequent source of septic infection and subsequent stricture.

The operation I employ is commenced by an incision from the rectum to the coccyx, as in the former operation; this being in the median line, severs the attachment of the external sphincter and levator ani muscles to the ano-coccygeal

¹ Read before the Surgical Section of the Royal Academy of Medicine in Ireland.

ligament, the rectum is now separated from the surrounding cellular tissue, and clip forceps applied to the rectum at the commencement of the ampulla, below which the bowel is divided; the attachments of the levator ani and sphincter muscles to the bowel are thus not interfered with, and hæmorrhage is restrained. The rectum being now completely divided above the internal sphincter, there is not much difficulty in drawing it downwards and backwards through the median incision, its separation from the prostate and base of bladder being facilitated by having to draw it backwards. Clip forceps are now applied above the diseased portion, which is removed by a scissors. The upper portion of the bowel is now fixed by deep sutures attaching it, about an inch above its cut extremity, to the recto-vesical fascia and levator ani muscle, thus closing the space between the levator ani and the peritoneum. In applying these sutures, care should be taken that the mucous coat of the bowel is not penetrated. A second row of sutures is now applied between the cut extremity of the bowel and that portion which had been originally left below; these sutures should penetrate the entire thickness of the bowel in both instances. The object of the upper row of sutures is to so fix the bowel as to obviate the danger of the sutures uniting the cut extremities of the bowel tearing through. The incision from the anus to the coccyx is now closed, the most anterior suture including the posterior aspect of the bowel, but not penetrating the mucous coat. The levator ani and sphincters will thus have their normal relation to the extremity of the bowel preserved. It might be thought that the lower portion of the bowel is in danger of sloughing owing to the superior and middle hæmorrhoidal arteries being cut away from it, but the hæmorrhoidal branches of the pudic arteries are sufficient to maintain its vitality.

It will be seen that both the cases I bring forward were examples of malignant disease in the middle third of the rectum, in fact, such cases as are frequently considered inoperable on, as actually occurred in Case II, or are subjected to one of the numerous extensive surgical procedures recently recommended and employed. If I can show that such cases may be successfully operated on by a more simple and less fatal method, my object in bringing this subject forward will be attained.

On referring to recent literature on this subject, it will be seen that cases of malignant disease implicating the middle third of the rectum are frequently subjected to operations requiring removal of the coccyx and part of the sacrum by oblique or transverse section, as in the operations of Kraske and Bardenheuer, or osteoplastic resection of those bones as in that of Rydygier, and that in most of those cases no attempt is made to restore control over the bowel, owing to the necessarily abnormal position of its termination, the patient being thus condemned to the permanent employment of some usually imperfect apparatus to retain the feces in the bowel until evacuation is desirable. I wish it to be understood that I do not condemn such operations, which have a fair and legitimate field of their own, when the disease is situated in the upper part of the bowel, but I consider them unnecessary in most of the cases restricted to the middle and lower third of the bowel.

Should the peritoneal cavity be opened in the operation I favour, it is very effectually closed by the deep row of sutures, and although the probability of a favourable termination to the case is thus lessened, I do not consider the possibility of such a complication to be sufficient to contraindicate its employment.

The advantages I claim for this operation are—it preserves the normal functions of the bowel, subsequent stricture is not so liable as after the usual perineal operation, convalescence is rapid, the mortality is low, and the disease is no more liable to recur than after the more extensive operations.

At the recent meeting of the Women's Liberal Federation a discussion took place on a resolution favouring a Bill for the registration of midwives. The Countess of Carlisle, who presided, in answer to statements that great expense would be cast on the poorer classes, said she looked to the time when all sick nursing of the poor would be thrown upon the rates. She also urged the appointment of women upon the proposed board of control.

TWO CASES OF APPENDICITIS ASSOCIATED WITH RHEUMATISM.¹

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Cases of appendicitis associated with symptoms of rheumatism are sufficiently rare to warrant me in believing that the two which I now place on record will be of interest to the profession.

The first case occurred in a young man whose illness began somewhat suddenly with pain in the ileo-cæcal region of the abdomen. From the nature of his occupation he had often been exposed to cold and wet, and had, in fact, been wet through a few days before the commencement of the attack. When I first saw him he was complaining of great pain and tenderness at and around McBurney's point; he had vomited several times; the temperature was raised, being slightly over 102°, and there was double tonsillitis. I gave him morphine and ordered poultices to be applied over the painful area. Very little improvement took place in his symptoms, however, and in the course of the next few days he began to complain of pain in the right shoulder-joint, and had somewhat profuse perspirations. I now changed his medicine, and gave him 15 grains of salicylate of sodium every four hours. The effect was magical. On the following day pain and tenderness had almost disappeared, and by the next day—the seventh from the commencement—he was practically convalescent.

The second case was that of a girl, aged 12, in whom there was also a history of getting wet. She was taken suddenly ill on February 14th, 1895, with pain in the right iliac fossa and vomiting. This was followed by pain in the left shoulder-joint and along the spine. I saw her first on February 18th. She had pain and tenderness at McBurney's point extending downwards towards Poupert's ligament. The temperature was 101.2°, the pulse 120; the urine was loaded with urates. Profiting by the experience of my former case I gave salicylate of sodium (gr. xv) with tincture of opium (℥x) every four hours. Next day the pain and tenderness had all disappeared, the temperature was normal, and the pulse 88. In short she was convalescent, and has had no return of the symptoms since.

REMARKS.—The occasional association of the symptoms of typhlitis or appendicitis with those of rheumatism appears only to have been noticed quite recently, and I can find no mention of it prior to an article by Dr. Haig, published in 1893.² Dr. Haig here mentions several cases "which were clinically typhlitis, but which got well as if by magic under salicylate of soda." In the same year Sir James Grant recorded a case of what he termed "rheumatic perityphlitis," and in the following year Dr. Burney Yeo published another case under the same title.⁴ Recent researches have shown that cases which used formerly to be termed typhlitis and perityphlitis are almost invariably appendicitis in reality, and we shall probably not greatly err in regarding all the cases here alluded to as belonging to that category. Whether the symptoms of appendicitis were really of rheumatic origin or not is a question on which we cannot dogmatise as yet. I venture to think, however, that there is already some clinical evidence pointing to that conclusion, and the remarkable similarity of structure between the vermiform appendix and the tonsil, together with the well-known liability of the latter organ to rheumatic inflammation would lend support to the view.

¹ Substance of a communication read before the Manchester Medical Society, February 20th, 1895.

² *Practitioner*, January, 1893.

³ *New York Medical Record*, November 11th, 1893.

⁴ See *BRITISH MEDICAL JOURNAL*, vol. 1, 1894, p. 1289.

THE Third International Congress of Physiology will be held at Berne on September 9th, and four following days.

THE French Institute has decided to open an international subscription for the erection of a statue to Lavoisier, the great chemist.