abdomen, another had extended into the iliac fossa, and the third into the pelvis, and, had a rectal examination been made, might have suggested a pelvic origin of the tumour. The upper half of the kidney projected from the mass, and the whole of the posterior aspect of the kidney could be recognised spread out on the tumour, which seemed to have started in the lower and anterior aspect of the kidney. The tumour con-

Posterior aspect of the growth. A, growth; B, upper part of kidney; C, large round mass of growth.

sisted of a dull yellow, very soft tissue. In one incision made into it a cyst, the size of a marble, containing a viscid yellow clear fluid, was found, probably a degeneration cyst. There was over every part a well-marked capsule.¹ Microscopic examination showed the tumour to be a round and spindle-celled sarcoma mixed with well-formed gland tissue here and there—an adeno-sarcoma. The gland spaces were not degenerating renal tissue but clearly new formations.

Progress after Operation.

With the exception of a temperature of 100° for a few days directly after the operation she had no symptoms. The drainage tube was removed on the third day, and the wound healed by primary union and the stitches were removed on September 4th. She was discharged shortly after in good health.

After-History.

In November, Dr. Cotton reported emaciation, loss of appetite, and a few crepitations at the base of the lungs, and she gradually failed, and died on January 16th, 1899. Dr. Cotton made the *post-mortem* examination, and kindly informed me that there was no local recurrence, but the lungs were full of minute tubercles, and the mesenteric glands were enlarged and caseous in parts. The right kidney was about the size of the adult organ.

How long the child would have lived without recurrence had she not been attacked by tuberculosis is, of course, impossible to say. I did not urge operation, in fact, I did not even recommend it, but as it gave a slight chance of recovery, the parents were glad to have it done notwithstanding its risks and the great chance of recurrence of the disease.

Dr. George Walker, of the Johns Hopkins Hospital, published in 1897² a very important paper on sarcoma of the kidney in children, based on the collected records of 145 cases. He could only find 4 cases on record in which the child had lived for three years after the removal of the growth, that is, four cases of cure according to the three years rule. Two of these were cases operated on by Abbe, of New York, and in one of them the growth was so large as nearly to fill the abdomen. The other two cases of cure were operated on by Israel and Schmidt.

Concetti,³ from a study of published statistics, estimates that there are 7 per cent. of cases in which there has been no recurrence for two years, and states that not more than 9 or 10 cases of absolute cure after operation are known at present. Dr. Walker gives the mortality of nephrectomy for renal sarcoma in children as 38.25 per cent., and says that most of the deaths were from shock. The removal of the growth is said to prolong life from 8.08 months—the average duration without operation—to 16.77 months. Concetti gives a mortality from operation of 40 per cent., but both he and Walker advise operation. Walker says: "Although the cures are very few, still, in consideration of the invariably fatal termi-

nation of this malady without interference, I unhesitatingly advise operation, for it offers the only hope; and at worst it means only an accelerated death." With this I cannot altogether agree. It means the chance of immediate death in about 1 case in every 3 operated on, a prolongation of life by some months in those patients who survive, and a so-called cure in only 4 cases out of 145 recorded. I think it is a matter for the parents' decision whether the risks incurred are worth the chances of benefit if the child survives the operation. Some parents would no doubt take the chance, others would rather not run the immediate risk. Except in the very early stage, we could, I think, hardly recommend operation. In Kelynack's book on renal tumours will be found the various opinions expressed by surgeons in the past as to the desirability of operating in these cases. There is one hopeful fact, and that is that the mortality has diminished of late years.

REFERENCES.

¹ The specimen was shown at a meeting of the Bristol Medico-Chirurgical Society, December, 1898. ² *Annals of Surgery*, 1897, vol. xxvi, p. 529. ³ *Ref. Med.*, May, 1898; EPITOME, BRITISH MEDICAL JOURNAL, 1898, vol. ii, par. 66.

CASES OF OPERATION FOR INTESTINAL OBSTRUCTION.

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I THINK that the following cases of operation for intestinal obstruction possess sufficient points of interest to warrant publication in the pages of the BRITISH MEDICAL JOURNAL.

CASE I.—I saw Mr. E., aged 33, on July 15th, 1897, with Drs. Williams, of Oswestry, and Richmond, of Overton. Always had good health up to present illness, except slight attacks of lumbago and indigestion. On June 10th of this year, in the forenoon, he had been struggling with a cow, trying to dress its feet, then went to market, returned, had a good tea. About 7 P.M. he was reaching up to a shelf, when he had a sudden violent pain in the abdomen, over the region of the stomach, great tenderness, no vomiting, skin cold and clammy, pulseless, temperature 97°. Dr. Richmond gave him ether and strychnine, and by the following morning he had somewhat recovered. On the 13th an enema was given; a good evacuation resulted, but there was at once a repetition of the pain, cold surface, and pulselessness. After a few days of tolerable comfort there was an inclination to have the bowels moved, a small amount of fecal matter passed, and at once the same prostration, pain, and tenderness. These symptoms occurred again and again at intervals of a few days. The last time anything fecal passed was on June 26th. During the other attacks there was only the great inclination, a little mucus, great abdominal pain, and prostration. On June 23rd the abdomen was seen to be slightly distended, and the knees were drawn up. The day before I saw him stercoraceous vomiting was added to the other symptoms. On the 15th he was feeling better, although the stercoraceous vomiting continued, and he had severe pain at times. Operation was proposed, but as he was easier it was not done. Afterwards the pain increased, the fecal vomiting continued, accompanied by great restlessness, and he decided to submit to operation. On July 19th I performed a laparotomy; on opening the peritoneal cavity, a quantity of dark fluid blood escaped; no intestine was seen at first, only omentum, which was adherent across the front of the pelvis. After separating these adhesions, the pelvis was found to contain a quantity of blood clot, which I removed in handfuls; adherent to the omentum and behind it the sigmoid flexure was bent sharply over into the pelvis, and was held down by the omentum adherent to it and to the walls of the pelvis; these adhesions were easily broken down. I brought the bent part of the bowel up to the wound, where I stitched it to the skin; as it was considerably inflamed and very oedematous, I deemed it wise to open it. He was slightly sick and restless on the two days following the operation. On July 22nd Dr. Williams reported that the patient was doing well, passing flatus by rectum. Later the same day, Dr. Richmond records that a small motion was passed by the rectum: wound healthy, no pain. 26th: All satisfactory. 30th: Dr. Richmond reports that a scab over the lowest stitch came away, and a quantity of dark-brown discharge; he put in a drainage tube. On three occasions a large quantity of fecal material came from the wound in the bowel. After this the patient slowly recovered, the wound in the bowel closed, and the last I heard of him was that he was at Rhyl quite well.

CASE II.—Mrs. L., aged 60, under the care of Mr. Moreton, of Kelsall. I saw this patient on August 2nd, 1897. She had been suffering from symptoms of acute intestinal obstruction for several days. Operation was proposed, but consent was not given until the following day. On the 3rd I opened the abdomen. Distended small intestines presented themselves. After examining the usual places—left and right iliac regions and hernial apertures—and not there finding anything, I began passing the distended bowel between my fingers inch by inch. At length the bowel ceased to come. I traced it down to somewhere near the brim of the pelvis, where it was adherent. Whilst examining its connections I felt the adhesions giving way under the gentle pressure, and, continuing to separate these adhesions, the bowel in a few seconds became free, coming forwards to the wound. The bowel exhibited a curious nipple-like projection at the part constricted; this projection, even whilst we were looking at it, began to lose its form; the wound was then closed. She made a good and tolerably rapid recovery.

CASE III.—Mrs. P., aged 66. I saw this patient with Dr. Tisdell, of Liverpool, on September 10th, 1897. She had been ailing for some months, had suffered greatly from diarrhoea; for the last five or six weeks very little had passed by the rectum, some scybala a week before, and at times a quantity of clear boiled sago-like fluid. The abdomen was greatly distended, and the movements of the small intestine could be seen and felt through the abdominal walls. In the right side of the abdomen hard lumps were to be felt, giving the impression somewhat of masses of faeces, pain at the epigastrium, vomiting of foul-smelling material. At 10 A.M. on the 11th, Dr. Mann giving chloroform, assisted by Dr. Tisdell, I opened the abdomen. Small intestine, much congested, bulged at once; on examining the right side the hard lumps were found to be the gall bladder and liver. The colon was empty. I traced the distended bowel down until I came to the obstruction, which was a hard mass surrounding and almost obliterating the bowel like a tight ring, evidently malignant. This mass continued into the mesentery towards the spinal column, the mesentery being much contracted. As it was impossible to remove the disease I made an opening immediately above the stricture, and stitched the intestine to the skin. At 4 P.M. she seemed to be progressing favourably, but at 7 P.M. she died suddenly.

CASE IV.—Miss A., aged 47. I saw this patient with Drs. Roe and Glasson, of Ellesmere, on the 16th September, 1897. She had an attack of jaundice many years ago, otherwise has enjoyed fairly good health until last February, when she had a severe domestic affliction. Since then she has not been well, complaining frequently of pain in the right side of the abdomen. Four days ago she was in violent pain in the same place, and sent for Dr. Roe, who ordered an enema which brought away a quantity of small faecal masses. Neither faeces nor flatus has passed since. The temperature has at no time been higher than 99.4°, pulse 90; the pain is intense at times, the abdomen is extremely tympanitic; it appears to bulge a little more to the right of the middle line. I opened the abdomen just above the right inguinal region as if for colotomy. An enormously distended intestinal wall was exposed, and at first it was impossible to discover its extent; it appeared like a huge bladder, on the point of bursting. There were two or three black spots on the surface. It was clearly a distended caecum. A little searching showed the ascending colon quite empty, and a strong band across its commencement. I divided this band, and then opened the distended bowel, letting out a large quantity of gas, and half a chamber utensil full of liquid and semi-solid faeces. This distended caecum was at least 8 inches across its longest diameter, and 5 to 6 inches across its smallest diameter. Temporarily closing the opening I examined farther, and found the small intestines as empty as the colon. I stitched the opening into the bowel to the skin. She progressed very favourably for several days, her pulse varying from 90 to 112; on the third day the temperature was normal both morning and evening; she was free from pain, and had had many hours sleep. On the fifth day Dr. Roe writes that he found her pulse stronger and better, her general appearance good, no sickness for thirty-six hours; but later in the day at 4 P.M. she said that something had cracked; she had great pain; a hypodermic injection of morphia relieved the pain; she fell asleep, and died about 9 P.M.

CASE V.—Mr. D., aged 67. Seen with Dr. Trubshaw, of Mold, and Dr. Williams, of Flint, on October 7th, 1897. On the previous Friday, the 1st, he was attacked suddenly with pain in the lower part of the back; as he had been eating freely of mushrooms, it was at that time thought that this might in some way have caused the pain. On the 3rd he was much better, and on the 5th he was up, and had his bowels well moved, but late on the evening of the 5th he suddenly became faint, cold, and pulseless. His abdomen was distended, he passed no flatus, the surface of the abdomen was very much inflamed from the application of turpentine. A lotion of carbolic acid was applied, and we decided to wait until the next day. 8th, abdomen not so distended; both he and the nurse say that he passed flatus last night and this morning; temperature normal, pulse 96. 9th, pulse weaker, hands clammy, breathing irregular, abdomen very tense. I opened the abdomen, and a loop of distended colon protruding, I opened it and stitched it to the skin. He gradually became weaker, and died the following morning.

CASE VI.—H., a fireman, aged 33. I saw this man on January 15th, 1898, with Dr. G. Harrison. On January 10th he went very hurriedly to the fire station. During the day he had violent pain across the abdomen above the navel. Since then the bowels have been moved slightly with enemata. He is doubtful as to passing flatus; there is great rumbling at times; abdomen is very tympanitic and tender; has been vomiting for two or three days, brown material, but not faecal. I advised operation, so he was removed to the infirmary. At 9 P.M. the same evening I opened the abdomen. Small intestine, very much distended and deep red in colour, at once protruded. Not detecting at once where the obstruction was, I began passing the bowel through my fingers: shortly there was a check, and then a coil came forwards with a tense projection on it, and empty bowel beyond; in a few seconds this projection began to disappear. I stitched the most distended portion of the intestine to the skin, made an opening into the bowel letting out a quantity of brown fluid. I then washed out the stomach. On January 16th, thirteen hours after the operation, there had been no more vomiting, no tympanites; temperature 99°, but the pulse was very feeble. He had a fairly comfortable day, quite free from pain, but in the evening he became delirious, vomiting again came on, and he died late in the evening.

CASE VII.—Mr. T., aged 22. I saw this patient on December 21st, 1898, with Dr. Purdon, of Connah's Quay, late in the evening. He had had a severe attack of diarrhoea some days before; the diarrhoea stopped suddenly on the 10th, severe pain coming on at the time the motions ceased. He has been in great pain since, the abdomen is very tense, no motion nor flatus has passed since the 10th. As his pulse was good and his general condition not bad we decided to wait until the following morning, applying carbolic lotion to the abdomen so as to have the skin clean in case operation were necessary. On the morning of the 22nd he was no better and the pain was very severe. I opened the abdomen. After failing to find the obstruction at once, I began to pass the distended intestine through my fingers and soon met with a check. Some brown purulent fluid appeared close to the bowel. This I found to come from an abscess lying in the angle between the mesentery and intestine; the bowel was bent over this collection of pus, distended up to it and empty beyond. The pus was

very foul smelling. I cleared it all away, cleansing well the surfaces which had enclosed it. No perforation could be found. Before closing the abdominal wound I washed out the peritoneal cavity. He recovered rapidly without a single unfavourable symptom.

REMOVAL OF A SUBMUCOUS FIBROID BY SECTION OF THE UTERUS (MYOMECTOMY).

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THE idea of removing a fibroid in the manner adopted in the following case was originated in my mind by the ease with which a Cæsarean section is done, but I have subsequently read what has been written on the subject. I find that Martin of Berlin first removed an internal fibroid in this way, and his case is about the only one published. He also enucleated intramural fibroids by abdominal section. Curiously, however, he seems to have recanted and abandoned the plan.

Mrs. R., aged 41, was sent to me by Dr. Percy V. Fry, of Haworth, near Keighley; married two years; nulliparous. The symptoms complained of were hæmorrhage and dysmenorrhœa. The sound passed 3½ inches point forwards. Bimanually there was no marked irregularity of outline, but the uterus was enlarged. The cervix was dilated with great difficulty, and at the fundus a sessile tumour could be touched. Enucleating this and removing it by *morcellement* was out of the question, as the cervix was so undilatable, even with Reid's powerful screw dilators. I therefore determined to remove it by abdominal section and section of the uterine wall.

This operation was done on December 26th, 1899, and I was assisted by Dr. Oldfield of Leeds. A median incision was made in the abdominal walls, the lower end being nearer the pubes than usual in abdominal sections. The uterus was brought up to the wound, and its rounded anterior surface came well into view. It was packed round with sponges to protect the peritoneum, and a rubber tourniquet applied tightly round the cervix, so that the operation was almost bloodless. A central perpendicular incision in the uterine wall, about 2 inches in length, exposed the attached surface of the tumour, which was recognisable by its glistening white colour.

The incision was prolonged a little, so as to open the cavity of the uterus below the tumour. The tumour was pushed out by the finger with its mucous surface entire and removed. A drainage tube was then passed from the uterine cavity into the vagina, and the wound closed by strong catgut sutures, three to the inch. These all missed the mucous surface of the interior except two, which were passed just within the cavity to loop up tags of the capsule of the tumour. The tourniquet was then removed, and hæmorrhage from the needle pricks stopped by sponge pressure. There was no bleeding or oozing from the wound itself. The abdominal wound was closed as usual. The patient has made an uninterrupted recovery. The drainage tube was removed from the vagina in twenty-four hours.

With the exception of two cases, to be mentioned, the case just related is, I think, the first which has been done in this country—that is, the first in which the womb has been deliberately opened in order to remove a solid internal tumour.

The two cases referred to are related by Dr. Alexander, of Liverpool, in a most interesting paper read before the British Gynaecological Society in April, 1898, upon enucleation of external and intramural fibroids. In only two of these the cavity of the uterus was opened, accidentally I think in one, and a small pedunculated polypus being found, it was snipped off. In the other case, only a thickening of the wall of the fundus was found, and it was "shaved down," so that my case remains the first fibroid removed by section of the uterus. (I say this open to correction.)

An earlier paper than Alexander's was one by Dr. Howard A. Kelly, of Baltimore, U.S., published in the *Journal* of the American Medical Association on October 2nd, 1897. This paper, however, like Dr. Alexander's, is upon enucleation of intramural and external tumours. In Kelly's magnificent work, however, on *Operative Gynaecology* (Henry Kimpton; 1899) will be found a full description of the operation just as I have described it, but no cases are related. I had not read this description at the time of performing my operation.

This operation is not recognised as yet as the proper mode of removing tumours which cannot be removed *per vaginam*, or which, on the other hand, are so large as to require the uterus, or part of it, to be removed along with the tumour. I think, however, that a little time and experience will show that it is the best means of so removing them. Why should such a case as the one I have related lose her ovaries or part of her uterus instead of merely the tumour. She will leave the private hospital where the operation was done with all her organs perfect. Moreover, the operation is not one attended with any particular danger or difficulty, provided complete antiseptic precautions are used.