CASE III. Interstitial Femoral Hernia: Properitoneal.—On December 31st, 1896, I operated upon A. W., aged 39, for acute intestinal obstruction of six days' duration. The patient, who had been sent from Kendal in Westmorland, was in bad condition and of a dusky hue, and beyond relieving the vomiting and the obstruction the operation appeared to have no effect in hastening or delaying his downward course. Death took place about twelve hours after the operation. From the condition found at the operation the diagnosis of a reduction *en bloc* of a right femoral hernia seemed to admit of no question. A strangled loop of small intestine was found protruding through an opening in the peritoneum close to the femoral ring. The loop lay completely free within the boundaries of the abdominal space, though outside the general peritoneal cavity. After its liberation the finger introduced through the aperture easily found and entered the right femoral ring. In opposition to this diagnosis was to be set the fact that the patient denied any remembrance of a swelling in either groin, and though a thin man, nothing unusual could be detected externally.

The *post-mortem* examination revealed quite a different condition. An empty sac occupied the right femoral canal, but close to its peritoneal orifice a diverticulum was found lying between the horizontal ramus of the pubes in front and the peritoneum behind. It was in this diverticulum that a loop of small bowel had been caught, and the constriction had taken place at the neck, not of the diverticulum, but of the main sac from which the diverticulum arose. Instead of a "reduction *en masse*," the condition was one of interstitial hernia, a variety usually met with in the inguinal region, and a much rarer complication of a femoral rupture. But this was not all. On the left side also there was found an empty femoral sac, whose neck was not closely fitted to the boundaries of the ring, but lay somewhat loosely in the abdomen a few lines from the femoral aperture. Its orifice would admit a pencil.

There were thus two well-formed femoral sacs in a patient who not only gave no history of a rupture, but could never remember any swelling in the groin. There could be no doubt, however, that these had been acquired, for when removed the constriction that existed at the necks showed that at some time they must have been distended. It is equally certain from the loose connection that existed between the neck of the sac and the femoral ring that the sac on the left side had not been recently occupied, whilst this peculiarity probably explained the formation of an interstitial hernia on the right side. A portion of bowel could easily be conceived as entering the mobile portion of the sac internal to the fixed boundaries of the ring, but its mobility would make it difficult for the loop to penetrate the distal fixed portion of the sac. As a consequence, the distension of an included loop would lead to an enlargement of the proximal portion of the sac, and by its one-sided expansion to the formation of a diverticulum placed between the peritoneum and the parietes—in other words, to the condition known as interstitial hernia.

CASE IV. Inflamed and Strangulated Congenital Umbilical Hernia.—In January, 1899, I was asked by Dr. F. J. Coleman to see an infant 4 days old, who had at birth a protrusion of intestine into the umbilical cord for about 1½ to 2 inches. This was irreducible, and the cord was ligatured beyond it. On Monday the covering of the swelling looked to be drying up, but on Tuesday morning its surface was greenish-yellow, and evidently on the verge of sloughing. The neck, which was formed of skin, was inflamed preparatory to the formation of a line of demarcation. The swelling had increased considerably in size, and was as big as a tangerine orange, and an impulse was thought to be present. Except for the local condition, the child was apparently perfectly well. In the evening, with the assistance of Dr. Coleman and Mr. T. M. Nicholson, I opened the sac by a median incision, beginning in the abdominal wall just above the tumour. The coverings of the rupture were infiltrated with pus. There was no fluid in the sac. The cæcum was enucleated from the sloughy coverings with some difficulty owing to firm adhesions, and the adherent appendix was ligatured and cut off. The bowel was of a deep reddish, purple colour, and so much thickened that a deep tear which took place in separating adhesions did not open its lumen. Though pulled out nearly an inch, the junction of the small intestine with it was not clearly seen. The broad neck of the swelling had evidently interfered with the return of the venous blood, and had produced a broad groove upon the gut, above which the bowel was of natural colour and appearance. The sloughing coverings were cut away, and the ring enlarged upwards to permit the return of the swollen cæcum. The wound was then closed. Recovery was delayed by supuration in the wound and by convulsions, but when last heard of, four weeks after the operation, the child was quite well.

In this case the strangulation of the hernial contents was induced by their inflammation. After ligature the umbilical cord sloughed down to its attachment to the abdominal wall, showing that its arterial supply was derived from the placenta. The coverings of a congenital umbilical hernia, therefore, are sure to slough, and in doing so they must excite inflammation in the adjacent parts. Here it led to adhesions, and later, to an inflammatory swelling of the cæcum. As the walls of the bowel increased in size the circulation became gradually obstructed by the neck of the swelling, but either this

constriction had not lasted long enough to produce an effusion of fluid, or the adhesion of the bowel to the sac had been sufficient to prevent such effusion taking place into the sac. The onset of strangulation was a late incident, and this no doubt was the explanation of the absence of symptoms previous to the operation.

The statistics of Macdonald⁴ are strikingly in favour of operation. Of 31 cases 12 were treated by compress and bandage, and 9 died, 19 were treated by laparotomy, and 2 died. No doubt the time of election for operation is before necrotic changes have begun in the coverings, but even then a satisfactory result may be hoped for, as the inflamed gut, when reduced, will quickly become adherent, and will shut off the wound from the abdominal cavity. In this case it was difficult to see how recovery could have taken place spontaneously except by sloughing or ulceration of the cæcum and the formation of a fæcal fistula.

REFERENCES.

¹ Vol. ii, p. 801, 1883. ² BRITISH MEDICAL JOURNAL, October 9th, 1897, p. 968. ³ Macready, *On Ruptures*, p. 92. ⁴ Treves's *System of Surgery*, vol. ii, p. 728.

THE CYSTOSCOPE IN SURGERY.*

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WHEN blood appears in the urine we should not rest satisfied with merely naming the condition "hæmaturia," but should endeavour to discover the source of the hæmorrhage. The appearance of the urine will not give much assistance; neither will the presence or absence of clots, nor the presence or absence of pieces of growth, since clots appear alike in hæmorrhage from the kidney and bladder when growths are present, and villous fringes may come from either organ. Our only trustworthy source of information is the cystoscope, which enables us to ascertain if the source of the bleeding is in the bladder, whether hæmaturia is present at the time of the examination or not. In the case of hæmorrhage from a kidney growth it is necessary to examine during an attack, in order that we may see bloody urine, or pure blood issuing from the mouth of the ureter.

In some cases of renal growths hæmaturia may be the only early sign; the kidney may not be appreciably enlarged. In a case recently operated upon the left kidney was explored and removed merely on the cystoscopic evidence, and the cancerous kidney weighed only 4½ oz. Malignant disease of the kidney is so rapid in its growth that, if any real good is to be expected, operation must be undertaken early. Moreover, villous growths of the bladder do not always shed pieces early, and if they are allowed to grow for months or years they tend to spread over the whole bladder wall, eventually making its interior look like a Turkey carpet, when total removal is impossible. I would go so far as to urge that cystoscopic examination becomes necessary when a patient has had more than one attack of "blood in the urine." The proceeding is so simple and so devoid of risk when proper precautions are taken that there need be no hesitation in resorting to it. An anæsthetic is not required, and the proceeding is no more irksome to the patient than the passage of a bougie. If this were done in every case of hæmaturia instead of continuing the administration of so-called hæmostatics by the mouth, much suffering would be avoided and valuable time saved. In all the cases of removal of a kidney I have relied on the cystoscope for evidence as to the presence and condition of the other kidney, observing the rate of flow of urine from the ureters and its appearance, and in no case was the peritoneum opened to allow of manual examination of the kidneys before proceeding to nephrectomy. Four recent cases of bladder tumour are here appended, in which the diagnosis of the position and nature of the tumours was made by means of the cystoscope. Two of the cases had suffered for years, and had large quantities of astringent medicine with but little effect, and in the other two a state of profound

* Read before the Lancashire and Cheshire Branch of the British Medical Association.

anæmia resulted from loss of blood before a positive diagnosis was made.

CASE I.—J. McD., aged 33, sent by Dr. Valentine, Earlestown. Blood first appeared in the urine in January, 1897. He was free from hæmorrhage until April, when clots appeared at frequent intervals until July. The urine was repeatedly examined for portions of growth, with a negative result. He lost a large quantity of blood, and became very weak. In July examination with the cystoscope revealed a growth springing from the bladder wall, half an inch above the right ureteral orifice, and a small villous fringe growing beside it. The larger growth was pedunculated, its colour was a brilliant pink, and each small sprout on its surface was translucent. On July 10th suprapubic cystotomy was performed, and the growths were readily removed through a Ferguson's speculum introduced into the bladder. Two glass drainage tubes were left in, and removed on the third day. The suprapubic wound closed slowly. A small quantity of urine escaped for a month. Microscopically, the growth proved to be a simple papilloma. On December, 1898, there were no signs of recurrence. The patient soon regained his usual health, and returned to his employment.

CASE II.—E. H., aged 42, patient of Dr. R. T. Hughes, Birkenhead. For twelve months she had noticed a brown sediment and blood in the urine and had been under medical treatment. There was seen on cystoscopic examination a little to the left of the opening of the left ureter, an oval depressed area, blackish green in colour three-quarters of an inch long by half an inch wide; this sloughy ulcer was surrounded by a fringe of sessile papillomatous nodules, bright pink in colour and not ulcerated. On September 18th, 1897, the urethra was dilated, and with the finger the fringe was felt to be suspiciously hard. It was removed by curved scissors and the base of the ulcer was scraped. After washing out the bladder with hot boracic lotion re-examination showed the area level and apparently free from growth. The patient was returned to bed wearing a pad of wool-wool tissue to catch the urine. Next morning the pad was dry, and a catheter introduced allowed 22 oz. of bloodstained urine to escape. It was necessary to use the catheter once subsequently; at other times she passed urine naturally, so that notwithstanding the extreme dilatation of the urethra it recovered its tone almost immediately. She was sent after nineteen days to a convalescent home. Microscopically the tumour exhibited marked alveolation and was probably cancer. She improved wonderfully in health, put on weight, and went actively about until September, 1898, when hæmorrhage again occurred and on examination recurrence of the tumour was noted. This was removed by suprapubic operation on October 24th, 1898. The wound quickly healed giving for the time freedom from pain and hæmorrhage.

CASE III.—W. W., aged 31, was examined on July 11th, 1898. Three years previously he began to have hæmaturia, which recurred at intervals during eighteen months, when a small piece of "jelly" was passed. Bleeding then became constant. During micturition the stream would at times suddenly stop for a moment, causing great pain in the penis and perineum. He was very anæmic and unable to follow his employment. On July 11th a branching villous growth situated above and to the left side of the orifice of the left ureter was seen, swaying about on a single stalk. On July 21st, with the assistance of Dr. Tisdall, the growth was removed through a suprapubic opening. A small artery was cut through in its base, but by seizing it with a pair of long artery forceps and withdrawing the Ferguson's speculum, the vessel was tied with chromic acid gut. Glass tubes were introduced for drainage and removed after forty-eight hours. On the fifteenth day a little urine leaked suprapubically, so a catheter introduced through the urethra was tied in the bladder and left in for three days, when sound union occurred. On the nineteenth day he left the nursing home. On January, 1899, he was found to be quite free from bladder trouble, and following his ordinary employment.

CASE IV.—Mrs. R., aged 58, sent by Dr. Fox Jackson, Ulverston, when seen in August, 1898, had had hæmaturia for two years; large clots of blood were repeatedly passed. On August 17th a large and almost sessile growth was seen by the cystoscope to be growing from the fundus of the bladder, having sloughy surface and irregular margins. The urine was highly ammoniacal and bloody; it contained also pus and fibrinous shreds. She had not lost flesh during the previous two years, so that, although its appearance suggested malignancy, we hoped it might prove to be a simple tumour. On August 23rd by suprapubic cystotomy a large mass of soft, sloughy, putrid growth was removed. The base of the tumour was somewhat indurated. Twenty-four hours afterwards the urine was highly ammoniacal, and phosphates were deposited in a thick crust on the glass drainage tube. The bladder was washed with a watery solution of chinolol—1 in 1200, every hour, and after 24 hours all decomposition had ceased. The wound rapidly healed, and the patient returned home after three weeks. In February, 1899, she had gained a stone in weight. There was, however, recurrence of the hæmaturia, and on examination a flat mass of growth was seen on the old operation area, so that the outlook is not hopeful.

The main object of this paper is to urge the importance of early examination of the bladder in all cases of hæmaturia.

TWO CASES OF EXTREME DILATATION OF THE SIGMOID FLEXURE: COLOPEXY: RECOVERY.

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THE two following cases are related as examples of what is believed to be a rare event in such an extremely common condition as constipation. The first case was under the care of Doctor Alfonso Masi, of the Military Hospital, Buenos Ayres, and the second came under my care. In no work within our reach can we find any allusion to the subject of localised sacculated

dilatation of the colon as the result of a state of chronic constipation.

Owing to such dilatation and the consequent accumulation of fecal matter, the condition of both patients was one of extreme gravity, as evidenced by the repeated attacks of intestinal obstruction and the high degree of anæmia.

CASE I.—C. A., aged 28, for the last four years had suffered from constipation. At the beginning of 1897 he began to notice that his motions contained blood, and that their form was tape-like. As on rectal examination there was only found a very vague sense of fulness behind the bladder, his symptoms were considered to be due to a stercoraceous tumour, and consequently he was given daily enemata of half a litre of olive oil, abdominal massage, and appropriate dietetic treatment. He had the constancy to continue with this treatment during three months, during which period his condition became greatly improved. At the end of three months the bowels were acting daily, but on occasions the fecal matter would take the form it had previously assumed; consequently the diagnosis of constipation had to be abandoned. In spite of finding the posterior part of the bladder to be distinctly more accessible than formerly, and the complete disappearance of the sense of fulness, it was considered probable that the symptoms were due to cancerous ulceration of the large intestine.

Laparotomy was therefore performed on February 2nd. The large intestine was first explored and was found free from lesion from the cæcum to the sigmoid flexure. On introducing the hand in the pelvis, behind the bladder was found a dilated coil of intestine about the size and shape of the stomach. Pressure on this had no effect in reducing its size, but on lifting it out of the abdomen it was found that its contents were at once dislocated into the rectum, and that the tumour was the last part of the sigmoid flexure, enormously dilated. Its surface presented numerous streaks similar to the "distension cicatrices" of the abdomen of a multipara, a sign that it had been even more dilated and had contained at one time a large quantity of fecal matter. As a matter of fact, it was seen that a movement of the bowels could alone be produced when the dilated part of the gut was filled to the level of the orifice which communicated with the rectum, for the muscular coat of the dilated intestine was incapable of any contraction owing to its atrophied state. Enormously dilated veins crossed the meso-sigmoid, which indicated the obstruction to the circulation and sufficiently explained the hæmorrhages of the last few months. Colopexy was then performed, as offering no risk to the patient, in preference to excision of the sac. This was united to the abdominal wall at the level of the iliac fossa with silk sutures. His convalescence was uninterrupted. After a dose of castor oil on the second day he had daily one or two motions, normal and abundant, to his great satisfaction, as for many years he had never defecated in this manner.

CASE II.—F. S., aged 42, had suffered for the last eight or ten years from constipation, and in an aggravated form for the last twelve months. During this last period his only food had been thin soup and cocoa, due to his desire to diminish in every way the quantity of fecal matter. In the month of March, 1897, he had an attack of intestinal obstruction, unaccompanied by vomiting, severe abdominal pain, but with the tongue dry and parchment-like. These attacks subsequently became more frequent and severe, and were generally ushered in by vomiting, which never became of a stercoraceous character. On palpation of the abdomen a tumour was found in the right hypogastrium, at the level of the insertion of the right rectus muscle; it was globular, smooth, and painless, and presented a considerable resistance. By the rectum the tumour was also felt, descending as far as its second part. On making firm pressure with the finger an indentation could be made in the tumour, which persisted afterwards. It was impossible to dislocate the tumour from the pelvis. The treatment employed consisted in the administration of large enemata, cascara sagrada, Hunyadi Janos water, and enemata of olive oil, with the result that the patient obtained a period of relative comfort, which quickly disappeared on abandoning the treatment; and the tumour acquired greater mobility, abandoning at times the pelvis completely, as was proved by rectal examination, and appearing high up in the hypogastrium, with great relief to the patient. However he never had a satisfactory movement of the bowels, never passing any fecal matter, only what he termed "washings." As the symptoms of obstruction appeared, it was decided to perform laparotomy.

On July 19th laparotomy was performed. On opening the peritoneum the sigmoid flexure at once appeared, enormously dilated, and having lost all its sacculated character. The small intestine seemed to be somewhat atrophied. The pelvis was found to be completely occupied by a large tumour, which impeded the passage of the hand into the cavity. By means of traction on the dilated colon it was found possible to lift it up, when it was discovered to be an enormous dilatation of the last part of the sigmoid flexure. Its peritoneal covering was normal, although somewhat thickened, and the tumour was not adherent. Its consistency was solid, but it could be indented. An effort was now made to express its contents into the rectum, but in spite of employing a moderate pressure it was found impossible. One or two alternatives then remained, either to suture the dilated intestine in an elevated position to the abdominal wall, or to incise it, remove its contents, and return it anew to the abdominal cavity, and the former plan was chosen. The intestine was sutured in an elevated position to the centre of the abdominal wound, which was closed above and below it. After the operation the patient expressed himself as very much relieved, until 48 hours after, when vomiting supervened. The bowels had not been opened since the day of the operation, and this once effected the vomiting disappeared. On the eighth day it was found that the fecal mass had fallen, until it was within reach of the finger. By the aid of enemata, the lithotomy spoon, and the finger, it was found possible to dislodge it. Its volume would be approximately three-quarters of a litre, and it had lost its fecal smell. Up to August 10th he defecated only after an enema, the motions being semi-liquid, and in other cases badly formed, but obviously of recent formation. The tongue was now quite clean. On August 3rd the abdominal wound was closed, local anæsthesia being induced by means of Schleich's method. During the following night the patient was much inconvenienced by the retention of gas, but was relieved by the introduction of the rectal tube, and more