weeks afterwards, opened the abdomen in the linea alba below the umbilicus for the purpose of either removing the disease or draining the abscess; but it was found to be quite impossible either to bring the wall of the abscess forward or to remove the disease, for the intestines were matted over it firmly, and the abscess sac was quite fixed to all the surrounding parts, therefore aspiration was simply performed. The patient made a steady recovery, and from that time forth began to pass less and less pus with the urine, and to improve in her general health. She returned to her home in America, and six months afterwards wrote to say that she was strong and well, and was doing her household work.

REMARKS.—The last case presents many points of interest which in a paper on kidney surgery it would be irrelevant to touch upon. It shows the fallacy of implicitly relying on catheterisation of the ureters, and also shows that an antiseptic incision into a healthy kidney, though an undesirable operation, is not necessarily productive of harm.

Case v calls for few comments, the prognosis in advanced renal tuberculosis must always be serious, and nephrotomy was simply done to give relief. The interest lies in the fact that two years previously he was suspected of having renal calculus, of which he had all the symptoms, and nephrotomy was then suggested.

The method of performing nephrectomy, carried out in Case i, differs from those usually adopted, and seems to present certain advantages. 1. The incision into the peritoneal cavity enables both kidneys to be explored before the diseased one is removed, thus avoiding the danger of removing a solitary kidney or of excising the wrong one. 2. The suturing of the cut edges of the visceral peritoneum to the edges of the abdominal incision completely shuts out the region of the wound, and especially of the cut ureter, from the general peritoneal cavity. 3. The ureter can easily be separated from the renal vessels and brought forward out of the lower part of the incision, or by another method, which I think of following out in my next nephrectomy, the peritoneal incision may be sutured and completely closed after an opening has been made in the loin by a large trocar or by an incision, through which the cut ureter can be protruded, together with a celluloid or some firm drainage-tube, an antiseptic dressing being applied both over the anterior incision and over the lumbar drainage opening.

If renal calculus be diagnosed, I suppose no one can have doubts as to the expediency of removing it by the lumbar incision, as in the satisfactory case of nephro-lithotomy described in Case II. If, after the capsule has been incised, closed dressing forceps be pushed through the soft kidney substance as in Cases II and IV, there will be much less hæmorrhage than if the knife be employed, which is a matter of some importance, as very serious bleeding has at times occurred after a simple incision of the kidney.

The chief difficulty lies in the diagnosis, and there are now numerous examples recorded where surgeons have opened kidneys without finding a stone; of such, Cases III and IV are instances; fortunately, whatever may have been the pathology, Case III was cured and Case IV was temporarily relieved.

In all future operations, if I fail to find the stone by palpation or by puncture, I shall open the kidney, and explore the pelvis and calyces by means of the finger, the wound in the kidney seeming to render the operation very little more serious.

Intermittent hæmaturia with lumbar pain, relieved by rest, and brought on by exertion, seem to be the only certain symptoms of renal calculus; all the others—namely, genito-crural pain; pain in, and retraction of, testicle; frequent micturition; lumbar tenderness, with rigidity of muscles; pyrexia; rigors or vomiting during the attack—whilst of value if present, may be entirely absent, although stone exists in the kidney.

Early tuberculous kidney, pyelitis, spinal neuralgia depending on caries, ovarian neuralgia, nephralgia depending on a floating kidney, or on lithiasis or other cause, may all simulate stone in the kidney; but, with the exception of the first two, it would seem that there should not, as a rule, be much difficulty in making a diagnosis, the chief points to bear in mind being intermittent hæmaturia, however slight, combined with lumbar pain. As a matter of fact, however, the subject is not so clear; for, although in some cases no difficulty arises, in others exploration of the kidney is the only means of clearing up the doubt. Fortunately, this does not appear to be a dangerous operation; and, moreover, in some examples where no stone has been found, as in Case III, it has actually proved curative.

THE TREATMENT OF PILES BY INJECTION.

By F. SWINFORD EDWARDS, F.R.C.S.,

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SO-CALLED quacks, both in this country and in others, have been in the habit of using various injections for the cure of piles, advertising their method as being one which cured without the use of the knife, an instrument the public is unduly afraid of. I was led to test this treatment from the accounts given me by several American surgeons who have from time to time attended the practice at St. Mark's Hospital for Fistula. They confirmed what I had already heard, that Kelsey, of New York, a well-known rectal specialist, treats a large number of hæmorrhoidal cases by the injection of carbolic acid, and this with brilliant results. There can be no doubt that if by this method the pain and confinement attendant upon an operation, whether by ligature, clamp and cautery, crushing, or excision, can be obviated, an immense boon is conferred upon the patient.

Now, amongst the out-patients at St. Mark's, and including two or three private patients, I have tried this method in thirty-eight cases, and I may say at once that I have been agreeably surprised with the results. It is now over two years since I commenced, and up to the present time I have only met with one relapse, whereas three cases have remained well for nearly two years, and fourteen others for periods varying between this and six months. In nine cases there are no symptoms remaining, such as hæmorrhage, pain, or prolapsus; but sufficient time has not elapsed for me to discharge them as cured. I have lost sight of two, and ten are still under treatment, but all of these are improving. Excluding, then, the two cases which did not attend again after the first injection, all have been either cured (for a time, at all events) or are in a fair way to attain this end, with the exception of the case I have mentioned as having relapsed; but, indeed, this patient never gave the treatment a fair trial. He was a clerk in the City, and had been troubled with prolapse and bleeding at stool for seven years. After the administration of an enema, four large and well-developed piles were to be seen; and so large were they that I urged him to have them tied, but for this the patient had no time. In fact it was a question of the loss of his berth if he were obliged to lie up. Accordingly I injected about two minims and a half of a carbolic solution, 1 in 10, into each pile. and returned them. There was a little bleeding, but no pain. This was on May 5th, 1887. On July 1st he wrote: "I have felt no pain whatever, and until to-night I have seen no blood, and now it is very slight." I did not see him again, but on November 11th, six months after the injection, he wrote to say he was quite well. It is but fair to say that he was taking a mixture of iron and magnesia, and using an ointment of the persulphate of iron. A few days ago he wrote to say that his piles troubled him somewhat and came down at stool. The only wonder to me is that he should have had so long a respite.

In one case only was any, or perhaps I should say much, pain complained of. The subject was a young man who, on my passing the needle into the first pile, jumped off the couch as if he had been shot. It was lucky that he did not break off the needle of the syringe. As he had not sufficient control over himself, I did not tempt Providence a second time, but admitted him into the hospital, where he underwent the usual operation of ligature. Our house-surgeon told me that he was very nervous and sensitive, complaining of more pain than his fellow patients.

The ages of my patients ranged between 21 and 68, and they were all men, from the fact, I presume, that during the time I have been trying this method I have been in charge of the male out-patients at St. Mark's. In only one case had I to repeat the injections four times. One or two injections, as a rule, sufficed.

As to the Method Employed.—Various fluids have been used, as carbolic acid, perchloride of iron, sulphate of iron, and ergot. I have confined myself to the first named, using this formula: carbolic acid gr. xij; glycerine and water of each 3j, or 1 in 10, though in severe cases I have increased the strength to 1 in 5. If the piles are not down, that is, visible on separating the buttocks, an enema should be given; then, when the patient has strained his piles down as much as possible, he is placed on a couch on his elbows and knees. A hypodermic syringe, with a needle of good lumen, having been filled with the solution, an injection is made into the centre of each pile in turn of from two to five minims,

and this should be done slowly, in order to give time for the fluid to diffuse itself. The piles having been oiled, should then be at once returned, and the patient may be allowed to depart. I advise him not to have an action of the bowels for twenty-four hours, and caution him to return the piles at once should they perchance become prolapsed. A mixture of sulphate of iron, dilute sulphuric acid, sulphate of magnesia, and infusion of quassia, three times a day, is prescribed, with an ointment of the subsulphate of iron to be passed up the bowel before and after stool. As a rule, I do not see the patient again for a week, when the report is usually satisfactory, that is, bleeding and prolapse have lessened or disappeared. A fortnight or more should be allowed to elapse between each injection; at least, I have not found the necessity of repeating it at a shorter interval.

Of course, it is only of internal hæmorrhoids we are speaking. It seems to me that every variety of these may be treated by this method, though not so advantageously should the pile be much indurated, or have become semicircular. It is obvious that sloughing and prolapsed hæmorrhoids, which are irreducible, are beyond the reach of this remedy.

There are certain cautions which it is as well to bear in mind. In the first place, make a thorough examination of the rectum to see that no other disease coexists, as for instance polypus, fissure, fistula, and stricture, either carcinomatous or fibrous; the latter I have known more than once to have escaped recognition, whilst the piles alone were treated. Before operating, see that the bowel is empty, and that the piles are well protruded. If the patient is unable to force them out with the help of an enema, I hardly think it worth while attempting this method, for careful constitutional and local treatment is usually sufficient, though it is recommended that the hæmorrhoids be injected through a speculum. Take care that the needle be inserted into the centre of each pile, or it is said that sloughing of the mucous membrane may be caused. After the injection swelling of the pile rapidly occurs, and if it is left long outside the sphincter there may be a good deal of difficulty in returning it. A digital examination after a week or so will discover slightly indurated swellings, corresponding to the tumours which have been injected. No doubt inflammatory thickening, with some thrombosis, is produced, which in time undergoes shrinkage, until at last an examination fails to discover anything abnormal.

There is a point one cannot lay too much stress upon, and that is to impress upon the patient the necessity of returning the part at once whenever it comes down. From the neglect of this one of my patients suffered great and unnecessary pain for three days, during which time the piles, which had become extruded, remained outside the sphincter.

The advantages of this method must be apparent to all, for the patient is not laid up, suffers practically no pain, and runs no risk to life from hæmorrhage, tetanus, erysipelas, or pyæmia, though I may here mention that my friend Mr. Cripps tells me that in some twenty cases one of his injections was followed by abscess. The patient commences to get better at once after the first injection, and is able to attend to his usual occupation during the whole course of treatment. Contrast this with any of the recognised operations. Although many of them are excellent, they necessitate the administration of an anæsthetic—at least, it is the usual thing, though it is possible to operate painlessly under cocaine, witness a case I reported some two or three years ago. Then a week in bed, and a subsequent week or two on the sofa, is generally required; in fact, it is usually three weeks or a month before the patient is fit for work again, although I am aware that some men have gone to work with the ligatures still *in situ*.

As to the strength of the solution, it will be seen that I have employed comparatively weak ones, for Kelsey recommends 15 to 20 per cent. solutions, and even the pure acid; but then he only injects one hæmorrhoid at a sitting, which takes place weekly. Ball, in his recent work on the Rectum, says that Dr. Matthews, of Louisville, declares this method to be painful, insufficient, and liable to cause death by peritonitis, embolism, and pyæmia. All I can answer is that, in these thirty-eight cases, extending over the past two years, I have been fortunate enough to meet with none of these things. I admit that the number of cases I have brought forward is but limited, probably not sufficient to allow one to form a definite opinion; however, I trust that I may be as free from accident in subsequent cases as in those I have already had. My colleague, Mr. Allingham, in the fourth edition of his work, throws cold water on the method, for he says he has "tried the

plan in a few cases, but the result was much pain, more inflammation than was desirable, a lengthy treatment, and the result doubtful—certainly not a radical cure."

Only once have I met with anything deserving the name of pain; as a rule the prick of the needle only is felt. Excess of inflammation I have not seen. As to radical cure, it seems to me that many years must yet elapse before we can judge of that. As I have pointed out, three of my cases operated on two years ago are, I have reason to believe, still well.

I would that I could close this paper here; but it is only right that it should be known that the chief advocate of this method, Kelsey himself, is no longer so enamoured of it as he once was, when he had had a series of 200 successful cases. It appears that he has published a pamphlet, which I am sorry I have not been able to see, in which, having had some unsuccessful cases, he now recommends the operation (if such it can be called) in certain selected cases only.

SURGICAL MEMORANDA.

INTERNAL STRANGULATION.

THE following case of internal strangulation may be of interest, on account of its rarity, and because of the patient's antecedents.

A young woman, aged 26, came from Yarmouth on September 22nd, to make her first visit to London. In the evening of Sunday, September 23rd, as she was travelling from Battersea in an omnibus, she complained to her husband of pain in the belly. After reaching home, she vomited, and was so ill that Dr. Qualtrough, whose name is not unknown in connection with abdominal surgery, was called to see her at 2 A.M. on Monday, September 24th.

She was then suffering much pain, and was vomiting constantly. Morphine was immediately given, and its use was continued up to the hour of her admission to the Great Northern Hospital, at noon on Wednesday, September 25th, when I saw her for the first time.

She had married when she was 17 years of age, and had borne three children. About four months after the birth of the second, when she was 19, she underwent ovariectomy at the hands of Mr. Cross, of Norwich. Ever since that operation she had been subject to colicky pains in the abdomen, and was seldom quite well for a week together. At the age of 21, some months after her third child was born, she had an attack of obstruction, lasting fourteen days, from which she recovered.

During the present illness she had been frequently sick, and was said to have brought up on the morning of admission stercoraceous matters, though her rectum had been emptied by enema the night before of a small quantity of solid feces.

At my visit she complained of pain in the belly, but her face was calm, and gave no indication of great suffering. Her skin was cool, the pulse quiet, and the tongue moist and clean. A small ventral hernia was found at the site of the ovariectomy wound. The abdomen was symmetrical, somewhat prominent, but soft. There was some tenderness on pressure, perhaps more marked in the right lumbar region than elsewhere. She vomited some green bilious fluid that was quite without odour. Her condition was so good, the vomited matter so innocent, and the history of the previous illness so circumstantial, that my colleagues agreed with me that palliative measures should be first adopted. In the evening I found that she had vomited again several times, and had at last brought up a quantity of dark fluid, holding brown powdery matter in suspension, and having an insupportable stercoraceous odour. She was said to have hiccoughed occasionally. At 10 P.M. her husband, who had returned to Yarmouth, arrived again in London. After seeing his wife, he repeated the story of the former illness, through which he had himself nursed her; that five years ago she had been suddenly seized with pain in the belly, constipation, and vomiting; that the vomit was of the same colour, and of the same stench as now; that for four days these symptoms had lasted, and that she had then gradually and completely recovered. Her condition was still very good, and had altered from what it was at midday only so far that her cheeks had a little more colour, her temperature had risen to 99°, and her eyes began to show faint evidence of abdominal disturbance.

Setting the history aside, there could be no doubt about the propriety of immediate interference, but though little credit should, as a rule, be given to "histories," this one was so precise in all par-