During convalescence (a very painful stage) there was much trouble from flatulence and constipation, for which hot poultices and injections of hot water and oil mixed were administered. A curious though distressing sensation at this time arose from intense itchiness of the back and arms. The diet consisted principally of milk with plain rusks, chicken tea, puddings with finely-steamed figs and prunes, and brandy.

This case is an instance of the complication of the rheumatic affection with parotitis. The latter was of a most severe character, suppuration being at one time apparently imminent, and the patient's life in extreme danger. At this date (July, 1888) he is almost quite well in every respect except that there is still some lingering stiffness, especially about his finger-joints. (He has since had some pain in his back.)

CASE IV.—J. K., aged 74, was first attacked in April, 1886, with pain in his left leg. Having never had an attack of anything like rheumatism before, he thought it a sprain, and that with a little rest it would wear off. He gave it a rest, but it still remained. It next extended down his leg, and he was afterwards seized in the other thigh, and in the course of a week or two it extended down to the leg and foot. It was accompanied with a little swelling from the first, but now the swelling increased. As it got worse from day to day, he had to lie in bed, not being able to walk or stand. In bed it increased, laying hold of his arms, shoulders, and hands, which swelled and stiffened, and lost strength so much that he could not put his hand to his mouth, and had to be fed at meals like a child. He could not bear his hands to rest on his body, or one leg or foot to touch the other, for fear of causing a burning sensation. After the disease had passed its climax, and he gained sufficient strength to be able to rise, he saw that he was a skeleton of his former self. Fat and muscle were gone; the bones protruded; his joints were dry and stiff. When eating, his jaw-bones cracked. Even yet—two years after recovery—he sometimes feels this cracking sensation in his knee and shoulder joints when using them excessively; and sometimes, as if not quite extinguished, in his toes and fingers, when warm in bed, he feels the heat of the old fire. His appetite continued moderately good all through, which, with good sleep, sustained him. He had not much pain when he lay without moving in bed, nor when he sat up in a chair; only when he moved or excited himself it troubled him.

He can now walk nearly as well as ever, though of course his strength is reduced. He attributes, as the cause of his complaint, exposure to cold weather: but he lives in a low, damp locality, away from the sun. He was studious, and took too little exercise. No anti-gouty remedies proved of any service. Evidently tonics were most called for, but time was his great restorer.

CASE V.—P. R., aged 71, was seized in April, 1887, with severe rheumatism in his arms, beginning in the right, and by-and-by affecting the left. It came on after being heated and getting chilled. He had not suffered from rheumatism previously, except that he had a sharp attack of lumbago about twenty years ago, which lasted for four weeks. The shoulder-joints were the articulations chiefly affected.

When he put himself under my care the pain, especially on the left side, was exceedingly acute, and interfered greatly with his night's rest. He had an anxious expression, and was depressed in spirits. Sulphur water was prescribed internally, and hot douching and massage to his shoulder-joints. The massage was too vigorously and abruptly applied, contrary to my instructions, and the pain increased rather than decreased. Of the value of massage, judiciously carried out, after inflammatory symptoms have subsided, there can be no doubt; but I have learned from experience that here, as well as in purely traumatic cases, as is so well shown by Thomas, nothing is to be ultimately gained by any form of *coup*. After he left Strathpeffer, improvement gradually set in, and in the course of the winter he got rid of his pain almost entirely, though there was stiffness of the shoulder-joint and occasional aching. He is now again almost quite well.

GENERAL REMARKS.—I feel that I have been scarcely able to prove my contention that these acute senile cases belong to a different category from gout and rheumatism on the one hand and rheumatoid arthritis on the other; yet, if I have succeeded in drawing the attention of medical men generally to a remarkable type of disease—remarkable in its severity and complete curability even at a very advanced time of life—I shall, I hope, be pardoned for dilating on the well-worn subjects of gout and rheumatism.

CASES ILLUSTRATIVE OF RENAL SURGERY.

By A. W. MAYO ROBSON, F.R.C.S. Eng.,

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UNTIL the lines of practice in renal surgery become more stereotyped by rules laid down as the result of large and varied experience the reports of all operations on the kidney, whether successful or not, should be of interest to the profession.

The following six cases, which have occurred consecutively in my practice at the Leeds General Infirmary, include one of nephrectomy, one of nephro-lithotomy, two of nephrotomy, and two of exploration of the kidney for suspected stone.

I am indebted to my House-Surgeon, Mr. A. H. Smith, for the reports.

CASE 1. *Abdominal Nephrectomy*.—A. H., aged 57, married, was admitted on December 31st, 1884, on account of a tumour, about the size of an adult head, occupying the left half of the abdomen. It was freely movable by pressure from behind the left loin, and, to a limited extent, from side to side and from above downwards. It was not tender on pressure; the veins of the abdomen were not enlarged; the navel was a little stretched but not prominent. The tumour was dull on percussion, the dullness extending from the tenth rib to the left iliac fossa, and across the middle line to 3 inches beyond the linea alba. The right border of the tumour was convex, and was surrounded by parts resonant on percussion. There was a doubtful sense of fluctuation over the lower part of the swelling. The uterus was natural in every respect. There were no urinary symptoms, the excretion being normal in quantity; clear, specific gravity 1017, acid, and without albumen. The swelling had only been noticed by the patient six weeks, and was growing rapidly. At a general consultation it was decided that the tumour, which was probably renal, ought to be removed.

January 10th, 1885. An operation was undertaken with the usual antiseptic precautions, an incision of 4 inches being made in the left linea semilunaris directly over the prominent part of the tumour. The colon, which coursed over the front of the kidney, was drawn to the right, and the cyst aspirated, about 2 pints of grumous fluid being removed; the visceral peritoneum was then incised over the tumour, which was enucleated, and the pedicle, composed of ureter and renal vessels, was ligatured with strong silk. The cut edges of the visceral peritoneum were then brought up to the cut edges of the parietal peritoneum and then to the edges of the wound, being there carefully sutured with catgut, thus shutting out completely the peritoneal cavity; the wound was then brought together by silk sutures, leaving an opening through which a large drainage-tube was passed, down to the region of the cut ureter. An antiseptic dressing was applied, and the patient was treated as after ovariectomy.

For two days the temperature was normal; on the third and fourth days it rose to 100°, but on the fifth was again normal; on the sixth it rose to 101°, whilst on the seventh it was normal in the morning and 101° in the evening; on the eighth, ninth, tenth, and eleventh days it was quite normal, whilst on the twelfth and thirteenth it fluctuated between normal and 101°, and just at the last rose to 103°.

There was never any abdominal distension, and flatus was passed on the second day. After the second day and throughout there was some pain in the left loin. The urine was passed freely and in sufficient quantity, and after the third day the catheter was not required. From the drainage tube there was a discharge of clear sanious fluid, and on the fifth day, the discharge having lessened, the tube was removed. The sutures were removed on the ninth day, the wound being healed except the drainage-tube opening.

On the second day of the case, the news of the desertion of her husband was somehow conveyed to the patient, and from this time she became restless, and rapidly developed symptoms of acute mania. Dr. Eddison kindly saw her, and suggested hyosciamine; this was very fully tried, and gave some relief; other sedatives except morphine injections quite failed.

The acute mania persisted, and caused her death on the thirteenth day from exhaustion. Had it not been for this most unfortunate complication I believe she would have done well, as, although the drainage was not perfect, the collection in the loin would soon have made itself evident, and could easily have been evacuated.

Post-mortem Examination (abstracted from notes kindly furnished by Dr. T. Wardrop Griffith, resident medical officer).—The wound had healed except the drainage-tube opening, which was quite pervious, but the drainage had evidently not been perfect, for there was a collection of non-foetid, creamy pus in the region of the left ureter, in the cavity out of which the tumour had come; there was no peritonitis. The opposite kidney was normal. There were some adhesions between the arachnoid and dura mater, apparently old. The tumour after removal was found to consist of the left kidney, which had been converted into a large thick-walled cyst containing grumous fluid; there were no recognisable remains of renal tubes in the walls of the cysts when microscopically examined.

CASE II. Nephro-Lithotomy.—J. F., aged 18, a labourer, was admitted under the care of Dr. Churton in April, 1886, with the history of having had intermittent hæmaturia, with pain in the right loin, for nine years, the first attack occurring after a strain, and lasting for a week. He had been incapacitated from continuous work because exertion always brought on right genito-crural pain, hæmaturia, and vomiting, although when at rest he felt perfectly well. Physical examination of the kidney revealed nothing abnormal except slight tenderness on deep pressure. The urine was normal when he was at rest, but when he was allowed to walk about microscopic examination revealed a few red blood cells. Dr. Churton diagnosed renal calculus, and on May 27th I operated antiseptically by the transverse lumbar incision. The kidney was fully exposed and handled freely, but no stone could be felt either by me or my colleague, Mr. McGill. It was then punctured in various directions by means of a long needle, and at about the eighth puncture a calculus was felt at the top of one of the calices. The capsule was incised at the convexity of the kidney, immediately over the stone, and a pair of dressing forceps closed were easily pushed through the soft kidney substance as far as the calculus, which was then seized and withdrawn, it being about the size of a horse bean. Very little bleeding occurred; a drainage-tube was inserted, but not into the kidney, and the wound stitched with silver sutures. The tube was removed on the third day, and the sutures on the eleventh day, the wound having nearly all healed by first intention without elevation of temperature, the urine all passing by the normal channel from the first. For a few days after operation the water contained blood, but by the end of the third week it was normal, there being not even a trace of albumen. Three months afterwards the patient remained perfectly well, and had had no return of his attacks.

CASE III. Exploration of Kidney.—W. M., aged 39, a cloth dresser, was admitted on April 24th, 1885, with the history of having been quite well up to nine months previously, when he began to have pain at the end of his penis, the attack lasting from fifteen seconds to two minutes, continuing intermittently for about three weeks, and being accompanied by the passage of coffee-coloured urine. There was no recurrence for four months, when he was seized with intense pain in the right loin lasting for two hours and a half; this was repeated twice within the next fortnight, after which he was perfectly well for three months, when the attack recurred, accompanied on this occasion by right genito-crural pain and retraction of the testicle. When admitted he was free from pain. The urine was quite normal, and micturition was painless; physical examination of the kidneys and bladder was negative. After consultation the kidney was exposed on April 30th by the transverse lumbar incision, and although it was freely manipulated and afterwards explored in every direction by a long needle, no stone could be felt. The wound was drained; some suppuration occurred, and the temperature rose to 102° at the end of the week, after which it was normal. The day after operation he had a slight attack of pain in the loin, but it was not repeated, and he was discharged quite well on June 2nd. When seen nearly a year afterwards he remained well, and had had no return of his trouble.

CASE IV. Exploration of Kidney.—F. T., aged 32, mechanic, was admitted on February 24th, 1887, under the care of Dr. Churton, with the following history: That two months previously he was seized while at work with a pain in the left testicle, lasting five hours, since which time he had had frequent recurrence of pain in the left loin shooting into the testicle, so severe as to compel him to go to bed, rest always giving relief. He noticed that during the attacks the urine was cloudy, but he thinks it was not dark coloured, and he never knew it to contain blood. Six weeks before admission, during a seizure, he noticed red, sandy

material in the urine, since when he had been unable to work, as exertion always caused a relapse. His seizures had never been accompanied by rigors or vomiting. On admission there was no increased frequency of micturition, and, beyond slight tenderness in the left loin, physical examination by palpation and by the sound revealed no abnormality in the kidneys or bladder. Twenty-eight ounces of alkaline urine, specific gravity 1016, were passed in the twenty-four hours, containing albumen, phosphates, and a few blood cells. He was treated with Carlsbad salts, but without relief, and Dr. Churton, suspecting renal calculus, asked me to see the case with him. On March 17th I exposed the kidney by the transverse lumbar incision. In consequence of the great obesity of the patient, and of the ribs being almost close to the crest of the ilium, the operation was attended with considerable difficulty, the kidney being placed at so great a depth that the hand had to be passed completely into the wound to effect palpation. This being negative, the kidney was punctured about twelve times very freely in all directions, without finding any stone. The after-progress of the wound was quite satisfactory, and the patient was discharged on the 27th day with the wound healed, the urine being acid and free from albumen. In the interval he had had three attacks of the old pain. When seen a few weeks afterwards the urine again contained albumen.

CASE V. Nephrotomy for Abscess in Tubercular Kidney.—G. B., aged 35, with a good family history, was admitted on May 14th, 1886, suffering from painful and frequent micturition, the urine, which was scanty, containing much albumen and pus, together with tubercle bacilli. He was profoundly weak, and suffering from hectic; the right kidney was enlarged to the size of a fetal head, and gave an obscure sense of fluctuation. On sounding, the bladder was found to be roughened and ulcerated. There was dullness at the apex of the left lung. He had been suffering from urinary symptoms for four and a half years, and had attended at the Leeds Infirmary two years previously for right genito-crural pain of an intermittent character, which was accompanied by hæmaturia and retraction of the right testicle, together with increased frequency of micturition and some pus in the urine. Nephrotomy was then proposed, but he declined to have an operation, and did not put in an appearance until the above mentioned date, when it was evident that he was suffering from tuberculosis of the urinary organs and lungs, as well as an abscess in the right kidney, and that any form of treatment could give him but temporary relief. On May 20th nephrotomy was performed, four ounces of offensive pus being evacuated, and a drainage-tube left in. Relief was only temporary, and within a few days he died suddenly whilst turning in bed. At the necropsy, numerous miliary tubercle were found in both lungs and in the peritoneum; masses of cheesy tubercle were present in both kidneys, all kidney tissue having quite disappeared from the right.

CASE VI. Nephrotomy after Catheterisation of Ureters.—M. T., aged 34, was admitted on June 18th, 1886, with the history of having suffered from pyuria with right genito-crural pain during the previous nine months. Micturition had not been very frequent, but had been painful during the act. She had been quite regular in her menses. On admission the urine, which was passed with pain about six times in the twenty-four hours, had a specific gravity of 1023, was alkaline, and very offensive, and contained about one-fourth of pus, with a few granular casts. There was slight tenderness in the right loin. On sounding the bladder nothing abnormal could be felt; but, on examining the pelvis bimanually, a swelling was discovered high up on the right side, which was not very tender, and did not seem to have any connection with her disease. On June 24th the bladder was dilated, but nothing abnormal found until the ureters were catheterised, when clear secretion was drawn from the left and offensive purulent urine from the right; the bladder was well washed out with weak perchloride lotion, and immediately afterwards nephrotomy was performed, but no pus was found, and the kidney appeared, and felt perfectly healthy. The wound was drained, the tube being removed on the third day, the sutures on the seventh, when it was found to be healed. It was now evident that the pus entered the ureter at some place between the kidney and the bladder; and as a pelvic swelling had been discovered before the previous operation which was believed to be either a retro-peritoneal abscess or a pyo-salpinx, it was concluded that this must be the source of the pus; and, as the patient was running down from the continual discharge, it was felt that the abscess ought, if possible, to be evacuated and drained. After stating the case to the patient, and with the concurrence of my colleagues, I, six

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,