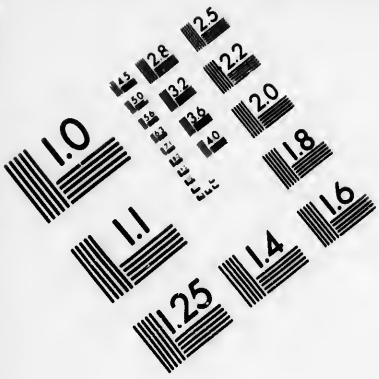

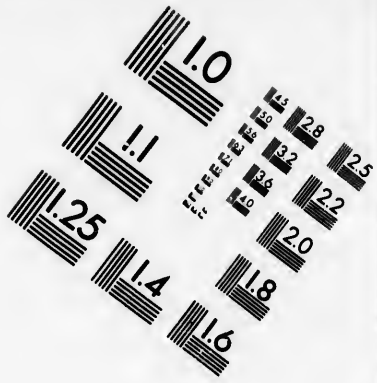

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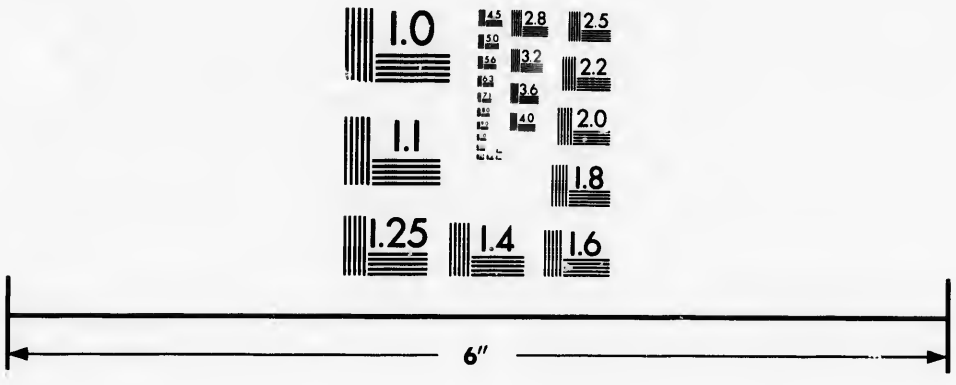

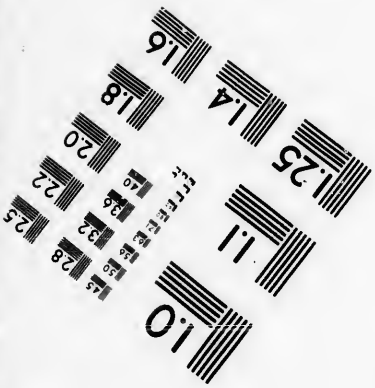

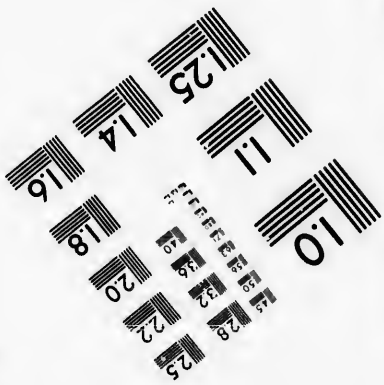

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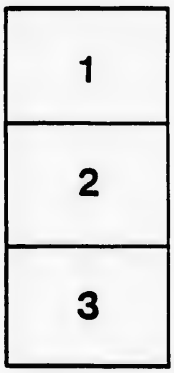

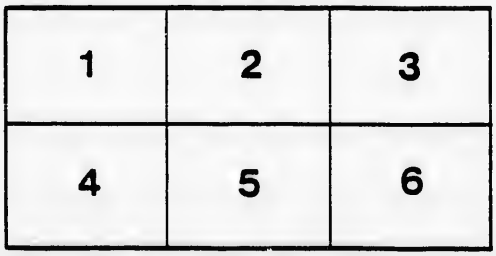

A Successful Case of Nephrectomy for Calculous Pyelitis.[1]

By FRANCIS J. SHEPHERD, M.D.,

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EXTIRPATION of the kidney, though now an operation of comparative frequency, is of such recent origin that surgeons are not yet agreed, either as to the cases in which it is justifiable or as to the proper method of its performance. Most of the advocates of the abdominal operation are specialists in abdominal surgery, while the verdict of the general surgeons is largely in favor of the lumbar operation. As, in the large majority of cases, the surgeon is unable to say till the kidney is reached, whether nephrotomy or nephrectomy should be performed, and even abdominal surgeons admit that the lumbar incision is the most suitable for nephrotomy, it seems to me that this reason alone should strongly influence us as to the choice of operation. The lumbar operation is, without doubt, the safest operation in the hands of surgeons who are not specialists in abdominal surgery, notwithstanding all that is now said about the "traditional fear" of opening the peritoneal cavity, being a ghost of the dark ages of surgery which has been effectually slain.

[1] Read before the Montreal Medico-Chirurgical Society, October 23, 1885.

Extirpation of the kidney for calculous pyelitis has been a particularly fatal operation, especially when undertaken in advanced cases of the disease. The mortality has been so great that it has been advised by many that a preliminary nephrotomy should, in all cases, be performed; others, again, strongly recommend drainage of the kidney alone, in cases where the organ is in an advanced stage of suppuration, and when it is surrounded by such an amount of cicatricial tissue as would render its removal a hazardous procedure.

The following case of nephrectomy for advanced calculous disease is, I trust, not without interest, and adds one more case to the list from which the rules governing renal surgery will, in the future, be formulated.

I am indebted to Dr. Gustin, my house-surgeon, for the history of the case.

Eliza T——, aged twenty-four, married, was admitted into the General Hospital under Dr. Wilkins, on August 10, 1885, suffering from a painful swelling in the left side of the abdomen. Family history throws no light on the case; no consumption. Has had two children and one miscarriage. She recovered rapidly from her first confinement, but convalescence was tedious after the second. Up to two years ago was always a very healthy woman. She dates the commencement of her illness from nine months ago, when she began to lose flesh and to suffer pain in the left lumbar region, pain occasionally reached as far as the thigh. She attributed these pains to the pressure of the pregnant uterus. She first noticed a "lump" in the left side of her abdomen two years ago, after the birth of the first child; it was movable, tender on pressure, but not painful. It gradually increased in size, and became painful. Five months ago she noticed that her urine was milky, and that if it stood for a short time a considerable deposit appeared. Occasionally the urine would be quite clear for two or three days, and then there would be a large amount of deposit. She never had anything resembling blood in the urine, nor had she

ever had any attack at all like renal colic; never had had any chills or sweatings.

On admission into hospital, the following note was made concerning her condition: "Patient extremely emaciated and anæmic, with an anxious expression of countenance; skin dry, of a sallow hue, and hangs loosely over the tissues; tongue red and flabby; bowels regular; no cough; lungs on examination are found perfectly healthy. Patient is very weak; has a pulse of 140, and temperature, 101° F.

"Has painful and frequent micturition, and complains of pain in the lumbar region which shoots occasionally down as far as the thigh.

"*Abdomen.*—On examining the abdomen, the superficial veins are seen to be much enlarged on both sides, as if there were some deep-seated obstruction. A distinct fulness is seen in left lumbar and iliac regions. Palpation reveals a large tumor extending across to within an inch of the umbilicus, continuous with the splenic dulness above, and below reaching as far as the brim of the true pelvis. By bimanual palpation the tumor can be grasped between the hands and moved slightly. No fluctuation made out, but tumor feels very elastic, and on pressure it is very tender. Urine has a specific gravity of 1.020, is slightly acid, and after standing a few minutes deposits a large amount of pus. On microscopic examination no casts are found, but pus-globules and oxalate and phosphate crystals are seen in abundance."

In the last week of August, Dr. Wilkins transferred the patient to the surgical wards, where she came under my care. At that time her condition was somewhat improved, she had gained flesh, but was still greatly emaciated. Her pulse, however, was still rapid (140), and her temperature ranged from 99° to 101.5°. The tumor had not increased in size since her entrance.

The diagnosis of the case rested between tuberculous and calculous pyelitis. The history of the case pointed, however, rather to the latter affection, on account of the

pain, occasional absence of pus in urine, and the absence of any phthisical history; on the other hand, there had never been any blood in the urine.

The condition of the patient not improving, the pulse remaining at 140, and the temperature sometimes running up as high as 103° at night, after consultation with my colleagues I decided to explore the left kidney through a lumbar incision, and to perform nephrotomy or nephrectomy, as would be determined by the condition of affairs found on reaching the kidney.

Operation.—On September 17, 1885, the patient having been etherized, the right kidney was first examined by palpation, and easily made out to be normal in size and apparently healthy. It was freely movable. The woman was now placed on her right side, in the colotomy position, with a pillow under her right loin. An incision was made, a little nearer the rib than the iliac crest, from the edge of the erector spinal muscle, downward and forward for nearly six inches. There was plenty of room between the last rib and crest of the ilium, the distance being somewhat greater than usual.

After dividing the various structures, the quadratus lumborum muscle was reached, and its most external fibres were divided transversely, so as to give more room posteriorly. During the dissection there was pretty free venous hemorrhage, owing to the distended state of the veins.

The kidney tumor now came into view; it was distinctly fluctuating, and on aspirating it, stinking pus was drawn off; passing the hand around the kidney in the direction of the pelvis, a hard substance was felt, which by needle exploration was found to be a calculus. An incision was now made into the most prominent part of the tumor, and nearly a pint of very fetid pus evacuated. Through this incision the kidney was explored with the finger, and a large calculus was felt filling up the pelvis and calyces of the kidney and extending down into the ureter. The kidney was converted into a large saccu-

lated pus-containing bag as large as a fœtal head, with numerous outlying cysts with thin walls. Seeing the extent of the disease and the impossibility of removing the calculus, I forthwith decided to remove the kidney. The incision already made was found too small to satisfactorily free the kidney from the surrounding structures, so it was enlarged by incisions at right angles to the original one, about its middle. In this way plenty of room was obtained, and the whole hand could be introduced for the purpose of freeing the kidney.

The upper end was freed without difficulty from the capsule and suprarenal body, which was left behind. The lower and posterior part was not so easily separated, as there were many adhesions—in fact almost a cicatricial condition of the surrounding structures. To give still more room many of the projecting cysts were punctured and the contained pus let out; in one of these cysts a stone, the size and shape of a marble, was found.

The posterior surface of the lower end of the tumor, which extended deep down in the iliac fossa, was the most troublesome part to clear, and some hemorrhage from the engorged veins occurred during the process. The peritoneum, however, escaped uninjured. The vessels entering the hilus were now tied with a strong carbolized silk ligature, which was cut short. The vessels were then divided, and the kidney delivered through the wound with ease. The ureter was also tied, cut, and brought out as near as possible to the edge of the wound. It was of normal size, except near the kidney, and was apparently healthy. After dividing a few bands of cellular tissue about the hilus, the kidney was removed.

During the freeing of the kidney there was considerable venous hemorrhage, and much oozing continued after the removal of the organ; several bleeding points were secured and tied with catgut, and the oozing arrested by sponge-pressure. The cavity left by the removal of the tumor was almost immediately filled up by

the intestines, which pushed forward the peritoneum. The wound was now irrigated with bichloride 1 to 2,000, and then brought together with catgut sutures, dusted with iodoform, covered with a pad of sublimate jute, and over all a broad gauze bandage. A large drainage-tube, I omitted to mention, was inserted into the lower end of the wound.

The patient, although suffering considerably from shock, rallied well. She had a little vomiting, which was controlled by champagne, and, for the first four-and-twenty hours, she was fed per rectum by brandy and beef-tea enemata.

During the night after the operation there was considerable oozing, and the dressings had to be changed on the second day; at this dressing the drainage-tube was much shortened. About thirty ounces of urine was passed in the twenty-four hours following the operation; it contained some blood and a small amount of pus; after the third day neither blood nor pus were found in the urine. Her pulse, which before the operation was 140, soon fell to 115, and the temperature after the first day never reached 100° F. The patient made an uninterrupted recovery, the wound healing by first intention everywhere except at the point of drainage. In two weeks she was sitting up, and in three wheeling herself about the ward in a chair. Her appetite was now enormous, and she rapidly gained flesh. By October 17th she was walking about, and looking quite healthy and strong. The daily amount of urine passed was from forty-five to fifty ounces, of a specific gravity of 1.020.

The calculus on examination proved to be composed chiefly of oxalates.

There are several points of interest in this case:

First.—The ease with which, in the patient's emaciated condition, the right kidney could be felt and recognized to be of normal size.

Second.—The large amount of room obtained by the crucial method of incision.

Third.—The satisfactory way in which, notwithstanding the advanced state of the disease and the number of adhesions, the kidney was removed without wounding the peritoneum or other important structure.

Fourth.—The rapidity with which the large cavity, caused by the removal of the tumor, was obliterated by the intestines pushing forward the peritoneum.

I feel certain that, in this case at least, the lumbar operation was the more suitable; had an attempt been made to remove the organ by abdominal section, it would have been impossible to avoid breaking the thin-walled cysts, and so allowing some of the fetid pus to get into the peritoneal cavity.

P. S., November 23d.—When last seen, a day or two ago, the patient was attending to her household duties, and feeling strong and well. There was still a sinus, large enough to admit a small probe, where the drainage-tube had been. There was very little discharge from the sinus.

MONTREAL, November 24, 1885.