Johnston (Geo. Ben.)

A Successful Case of Nephrectomy.

BY

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A Successful Case of Nephrectomy,

WITH REMARKS.

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ADAMS' CASE.—Early in the summer of 1889, I was requested to see Willie Adams for a urinary trouble. I found him a frail, delicate youth of twenty, following the avocation of a city lamp-lighter. He had already been under the care of another medical man. I was told that this gentleman suspected stone in the bladder. There were present many of the symptoms of stone. A search failed to verify the suspicion. An intense cystitis existed. The urine was voided innumerable times during the day, and always with great pain and tenesmus. His nights were rendered sleepless by this uncontrollable disposition to urinate. Only a few drops were voided at a time—never so much as two drachms. So constant was the desire to urinate and so irresistible, that he assumed the knee-elbow position, with a cup under the penis, and maintained it even while sleeping. In consequence of this attitude, there followed a distressing contraction of the hamstring muscles, which has continued until now. The urine was characteristic of chronic cystitis. The bladder had become greatly contracted, so much so that its capacity was less than a half ounce. Opiates afforded but little relief. The appetite was gone, and great

wasting had taken place. In spite of most energetic treatment the cystitis persisted. It presently became apparent that the right kidney was involved by extension of inflammation. Rigors, sweats, and rises of temperature, betokened grave encroachment upon this organ. Finally, in October, a swelling appeared in the loin, which was opened, and a large flow of pus took place. The pyo-nephrosis had become complicated by peri-renal abscess following a perforation of the capsule, and escape of matter into the kidney space.

No surgical interference, beyond the opening of the abscess, would be permitted at this time. Large quantities of pus, yielding urea, escaped from this fistulous opening in the loin. The symptoms grew more grave, and when it became evident that the result must be soon fatal, consent was given to resort to appropriate surgical treatment.

Accordingly, on *December* 12, 1889, assisted by Doctors Coleman, Bosher, Lee, Blanton, Oppenheimer and Preston, I performed in the usual way lumbar nephrectomy. No difficulty was experienced in separating the kidney from its attachments. It was not easy, however, to ligate the pedicle, which, when accomplished, allowed the organ to be cut away by scissors. The stump was disinfected and dropped back into the wound, and the walls of the large cavity occasioned by the perinephral suppuration, were scraped and disinfected also. A large perforated drainage tube was inserted, and the wound closed with silver sutures and dressed antiseptically. Reaction was prompt. Hypodermic morphia was given. A few hours later, Dr. Coleman visited him and found the dressing stained with blood. It was not removed, however. Hypodermic morphia was again given to induce sleep and relieve vesical tenesmus.

He spent a better night than was common for him, and expressed himself on the morning of the 13th as feeling very comfortable. His temperature, which on the day of operation had been up to 101.5°, was now normal. His pulse was also reduced in frequency, and of a better character. He had not urinated so frequently, and the bladder was emptied with less pain.

On this day some trifling clots of blood appeared in the urine. The quantity of pus it contained was wonderfully diminished. During the evening he complained of some distress from the tightness of the dressing, which was relieved, when a new and looser dressing was applied.

December 14th. He passed a very good night, the frequency of urination diminishing and pain lessening. The quantity of urine passed during the previous twenty-four hours was one quart, which was much improved in character, being free from pus. He was quite cheerful, and expressed himself as feeling hungry. His pulse was good, and his temperature continued normal. The amelioration of painful symptoms was more marked in this case than in almost any I have ever seen. Improvement continued; morphia was withdrawn in a few days.

On the 25th of December, he was able to leave his bed. Steadily the urine improved, and with this improvement came a cessation of the severer bladder symptoms, until he only passed water four times during the night, and perhaps six times during the day, showing an increase in the capacity of this viscus, and a diminution of the inflammation. His appetite was now excellent, and upon generous diet his flesh increased. As the wound continued to discharge from the large cavity formed by the removal of the kidney and a perirenal abscess, the drainage tube was not removed early,

but shortened from time to time until the twenty-seventh day after the operation, when it was withdrawn.

The kidney was submitted for inspection to Mr. Hugh Blair, who had assisted me greatly in this case by frequent and skillful examinations of the urine. This is his description of it:

"The kidney is 5 inches long, 3 inches wide, and weighs 6½ ounces. The capsule is closely adherent. The position usually occupied by the calyces is now represented by sacs that would hold, probably, 2 or 3 drachms of fluid. The upper portion of the kidney is occupied by a pus cavity that would contain one fluid ounce or more. It had very much the appearance of the cheesy-looking pus cavities found in the lungs of tuberculous subjects. The parenchyma of the kidney was much toughened. There was no cartilaginous appearance, such as is found in scirrhus. No doubt the kidney had been much larger, but after suppuration, and the pus had found its way out externally, there was contraction and consequent hardening. The microscope revealed no cancer cells."

Since preparing this report Adams has died. His death occurred on the hundredth day after the operation. Thirty days previous to his death he began to decline. In the beginning, there were no marked symptoms beyond the loss of what strength and flesh he had accumulated. Exhaustion by and by became very noticeable. Later, rigors and sweats came on, accompanied by pain over the two last dorsal vertebræ. The wound re-opened and discharged healthy pus freely. Ten days before his death, he had a violent convulsion, followed by no coma. I was at a loss to account for this. The urine was normal, except that it contained mucus and small quantities of pus coming from the in-

flamed bladder. Exhaustion progressed, with now and then a convulsion, until his death.

Twenty-four hours after his death, Dr. Coleman and I made an autopsy. The body was fearfully emaciated. The margin of the new opening had sloughed by reason of debility, and pus had escaped from it. The abdomen was opened. There was evidence of a previous severe peritonitis, of which no history was given. Otherwise the intraperitoneal organs were healthy. The walls of the bladder were greatly thickened, and chronic cystitis, without deep ulceration, was present. The remaining kidney (left) was found to be perfectly normal. The kidney space, from which the right kidney had been extracted, had filled up and was thoroughly healed. The fistulous opening in the loin led up to an abscess in the side of the body of the eleventh dorsal vertebra, which it had perforated by an opening, perfectly circular in form, and of about the calibre of an ordinary lead pencil. This opening allowed the entrance of pus into the spinal canal, and thus the membranes became inflamed, which occasioned the convulsions and death.

Remarks.—Simon added a triumph to modern surgery in planning and executing nephrectomy.

The indications for its performance are briefly—

1. Injury to one kidney which, from hæmorrhage or suppuration, threatens life.

2. Urinary fistula following rupture of the ureter.

3. Unilateral tuberculosis in its early stage.

4. Tumors which are benign and the sarcomata of adults.

5. When palliative measures have failed to relieve floating kidney, which affords great distress.

6. As a secondary operation in hydro- and pyo-nephrosis.

It may be performed by one of three methods—

1. In the loin, following the outer border of the erector spinæ muscle.

2. At the outer border of the rectus abdominis muscle.

3. In the linea alba.

For obvious reasons, the first of these routes is to be chosen when the nature of the case allows a choice. In the first place, the kidney is reached without trespassing upon any important structure. The peritoneum is not wounded, and thus escapes contamination. By reason of its dependent position, the wound is easily drained. By either of the abdominal incisions the peritoneal cavity is entered, and thus the gravity of the situation is added to. The abdominal sections, however, have the advantage of permitting an inspection of the supposed healthy kidney, which, on occasions, might prevent an egregious blunder.

It may be said, in a general way, that the lumbar incision is to be selected for the removal of the fluid tumors of the kidney and inflammatory conditions, while for the larger solid and non-inflammatory tumors the abdominal section is to be preferred.

In either case, the most careful antiseptic precautions are to be observed.

The operation has been performed, as shown by statistics detailed by Ashurst, four hundred and five times.

These cases terminated thus:

In recovery, - - - - -	257
In death, - - - - - -	148

Giving a mortality of 36.5 per cent.