Original Articles.

PEDUNCULATED PAPILLOMA OF THE BLADDER; SUCCESSFUL REMOVAL BY PERINEAL OPERATION.¹

BY F. S. WATSON, M.D.

E. B., aged thirty-seven, was alarmed three years since by a very profuse hæmorrhage into the bladder. The urine, he said, was black with blood. This condition came on without any apparent cause. Ever since he has had intermittent attacks of hæmaturia. The urine sometimes has remained free from blood for several weeks at a time. Until very recently urination has been painless and natural as to frequency. He has had two or three attacks of retention due to the presence of clots in the bladder. Has often passed large clots, but never any fleshy bits until within a fortnight. He has lost about seventeen pounds weight during the last three years, but is still strong and in very good condition.

The urine at the time of his first visit contained bright blood in moderate quantity. Some pus, two or three small phosphatic concretions, which he had noticed for the first time in the preceding day or two, and a good many small shreds, which, microscopically, were seen to be the most typical examples of a benign papillomatous growth.

Rectal examination gave a slightly greater sense of resistance of the bladder wall to the finger over a small area just above the right lobe of the prostate. There was also tenderness on pressure at the same point. This was interesting to me, as it has been generally stated that unless cancerous these growths could not be detected by touch in the rectum. Nevertheless, I have been able to locate the growth exactly, previous to operation, in this case, and in one which I operated upon by the supra pubic method last summer by rectal touch. In the former case the growth was small and delicate. Dr. Cabot confirmed the observation in that instance. Bimanual examination was negative.

On April 23d, with the assistance of Drs. J. W. Elliot, H. W. Cushing and R. Lovett, I performed the perineal operation. Opening the membranous urethra on a grooved staff, the prostatic urethra and vesical orifice were rapidly dilated to admit the forefinger, which, upon entering the bladder, came at once upon a villous tumor, whose free surface was about the size of a small tangerine orange. It was attached to the bladder by a pedicle about one-quarter inch in length, and of the breadth of the forefinger, just above the right lobe of the prostate as per diagram. After some difficulty the pedicle was seized with a strong pair of curved forceps and twisted and chewed off, the larger portion of the tumor, which I show here, coming away in one piece. The stump of the pedicle and a smaller part of the tumor which remained behind were removed with curettes. Hæmorrhage was free during the operation. The bladder was washed out with a hot solution of boracic acid four per cent.; and this perineal drainage-tube (of which I will speak in a moment) was tied into the bladder. The operation was long and tedious. The patient had delayed reaction, the pulse being very weak and 120 for twenty-four hours afterward. Bleeding continued to be steady and free for twenty-four hours, then gradually diminished,

ceasing entirely on the third day. Vesical tenesmus was frequent and severe for twenty-four hours, due to large clots plugging the orifice of the tube. Throwing an ounce or two of boracic solution into the bladder dislodged them, and relieved the patient at once until another one came into the tube.

Since the first twenty-four hours this patient has declared that he never felt better in his life. There was no rise of temperature, except for a few hours one week from the date of operation, due to a slight epididymitis. I removed the perineal drain on the fourth day. He was moved from bed to couch on the fifth day. The urine is entirely free from blood, and only contains a very little pus, which comes from the prostatic urethra. Frequency of urination, once in four or five hours; and he can hold it all night. The perineal wound is nearly healed, and recovery may be said to have practically taken place in ten days from the date of operation.

FIG. 1.

Three months have elapsed since reporting this case, and at this date of publication the patient is entirely free from all symptoms, and perfectly well.

In the last patient from whom I removed a tumor of the bladder I chose the supra-pubic route. The patient made an excellent recovery in nine weeks. I contrasted, then, the two operations, and pointed out their relative advantages and disadvantages, which I will not repeat now, but would only add that the operation should be selected according to the nature of the tumor as seen by the cystoscope, or felt by digital exploration through the perineum.

In those cases in which the growths can be removed by the perineal route I believe it is best to do so, as being less dangerous, and securing a shorter convalescence. If they are found to be too difficult to remove thus, the supra-pubic operation should be proceeded to at once.

¹ Read at the meeting of the Surgical Section of the Suffolk District Medical Society, May 8, 1888.

The perineal operation I consider much the more delicate and difficult.

In connection with the diagnosis of these cases, it is of interest to refer to a series of fifteen published in the *Lancet* of April 21, 1888, by Dr. Nitze.

The diagnosis was very accurately established in all by the cystoscope of Nitze, which Dr. Newell showed to this Society earlier in the year. In two of the cases hæmorrhage, although considerable, did not prevent a good view of the growths. The use of this instrument will, in all probability, render the employment of the other means of diagnosis which we have hitherto relied upon, unnecessary in many instances.

In eight of these cases the tumor was extirpated. In five the operation resulted in cure. One died from extension of malignant disease. In seven the supra-pubic method was employed. In one (a female) the tumor was removed through the dilated urethra. The operations were performed by different surgeons. This is the latest contribution to the subject.

It is in connection with this case that I wish to show a new form of drainage-tube to be used to drain the bladder after perineal section.

With a view to establish the distance from the outer perineal wound to the bottom of the bladder, and the curve of an instrument which should most easily fit the posterior urethra, and whose end should lie in and drain the bottom of the viscus, I took measurements upon twenty cadavers. The length in those measured varied from three and one-half inches to four and five-eighth inches. This distance, however, became unimportant, as you will see, because the construction of the instrument is such that its length lying within the urethra can be adjusted to all cases. The curve of the instrument is its important element. The measurements were made with soft metal. The result of the measurements gave the curve which is represented in this drainage-tube. The outer end projects horizontally from the wound when the patient lies on his back, the inner end occupies the lowest point of the bladder, the intermediate shaft fitting the urethra.

FIG. 2.

FIG. 3.

To complete the instrument it was necessary to have a plate attached to the tube by which to fasten it to the body, which could be pushed forward or backward on the tube according as the distance from the wound's surface to the bladder should vary in each case. This, as I have said, makes the difference in this distance in each case unimportant, and accommodates itself, also, to the extra length in cases of hypertrophied prostates. Accordingly, I had a plate fitting the perineum placed on the tube. The chief point in the successful construction of the instrument lies in a collar (a) of the depth of one-quarter inch, which projects from the front surface of the plate and embraces the tube, so that ordinary pressure will not force the plate back-

ward or forward along the tube, but it *can* be adjusted at a longer or shorter distance from the end of the instrument by firm pressure, and will remain wherever placed. In this way the varying lengths of the canal to be traversed by the tube can be met at once by the instrument, the placing of the plate at any given point in the course of the tube being all that is necessary to make a longer or shorter drainage-tube, the flow of water from the tube on its being passed into the bladder being the guide as to the point on the tube at which to fix the plate. Tapes led through slots cut in the four corners of the plate (Fig. 2) attach it to a band going round the waist, and hold it in place. A rubber tube attached to the outer end of the gutta-percha drain leads the urine into a urinal.

The tubes are designed to be of various calibres to meet different indications. The one used in this instance was 34 (French). In case of hæmorrhage some of the tubes are supplied with a raised flange just above the eye (b) so that they can be converted into a canula à chemise.

The question as to the employment or non-employment of drainage-tubes after perineal section is often discussed and contrary views expressed. My own belief is that they are sometimes useful and sometimes not. Previous to this I have watched two cases after removing tumors of the bladder. No perineal drainage was supplied in one, and insufficient drainage in the second. The vesical tenesmus in both was excessive and painful to watch, and was entirely referable to the presence of blood-clots. In this last case I was enabled to relieve the tenesmus almost immediately by washing the clots out of the tube, and keeping the bladder empty.

I feel no doubt as to the desirability of using a large drainage-tube in cases where free hæmorrhage is to continue (as it almost always does after the removal of vesical growths) for, at any rate, twenty-four or thirty-six hours, or until the bleeding decidedly lessens; then it may be removed with advantage. The employment of such drainage-tubes are also indicated generally for a longer period after perineal prostatotomies, where it is desired to keep the wound open, a fact demonstrated and emphasized by Mr. Reginald Harrison. After operations for deep stricture the use of a drain through the perineal wound for a day or two has seemed to me to diminish the chances of constitutional disturbance, but here the tubes of smaller diameter will answer better. It is hæmorrhage into the bladder that calls for the larger sizes, and that, of course, is especially liable to occur after removal of new growths, or in rupture of the viscus. The tubes are, as you see, made of polished hard rubber, with rounded ends and very large eyes, and ensure the largest interior calibre, together with the thinnest possible walls.

— The editor of a Western journal made a pathetic appeal on behalf of the condemned murderer Maxwell. Among other things he said: "God knows that the picture of that mother and sister hovering like *angles* about the prison bars is enough to move a heart of stone, but more particularly considering the medical aspects of the affair I think the governor should interfere in behalf of the condemned Maxwell." How do Prellar's relations view this angular movement?