Vascular Tumors of the Female Urethra

With the Description of a Speculum Devised to Facilitate their Removal

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VASCULAR TUMORS OF THE FEMALE URETHRA:
WITH THE DESCRIPTION OF A SPECULUM DEvised TO FACILITATE THEIR REMOVAL.

BY A. REEVES JACKSON, M. D.,
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Sixty years ago Sir Charles Clarke, in his work on "Diseases of Women," called attention to a disease affecting the meatus urinarius of the female, characterized by the presence of red elevated spots, or wart-like growths, exceedingly sensitive to the touch, and accompanied by dysuria, frequent micturition, and various other local and sympathetic symptoms. Prof. James Y. Simpson subsequently brought the disease into more prominent notice and named it "urethral caruncle." Since that time it has received the attention of almost every writer on gynecology, and, under the various names of vascular excrescence, caruncle of the urethra, vascular tumor, urethral polypus, etc., it is now a well-recognized disease. Its comparatively frequent occurrence and its very distressing character justify all the consideration that has been bestowed upon it.

It having been my lot to see a number of these cases, I have deemed it expedient to make brief mention of a few of them, especially those which seem to possess features of more than usual interest.

It has been stated that these vascular growths are not supplied with nerves, and that the seat of their great sensitiveness is not any part of their own tissue but that portion of the mucous membrane to which they are attached. I feel convinced that this opinion is erroneous, for not only
has Dr. Reid ¹ affirmed the existence in them of numerous nervous filaments, but I have on more than one occasion caused a patient to scream with pain by simply touching one of these growths in the most gentle manner with a camel's hair brush, in such a way as not to influence at all the underlying membrane.

The remarks I may have to make, and the cases introduced to illustrate them, will have reference to the disease only as it occurs within the urethra. Those cases in which it appears at the meatus, or in the parts externally adjacent, are much more easily diagnosticated and treated, although even in these localities it has sometimes, from lack of simple inspection, existed for a long period without recognition.

There are no diseases that come within the province of the gynecologist that show more pointedly the necessity for thoroughness of physical investigation than do those of the female urethra. This arises from the fact that the subjective symptoms present in these cases frequently do not lead to even the suspicion of disorder in that organ; and, hence, nearly every writer upon the subject relates instances of grave blunders, both of omission and commission, on the part of himself and others. And, indeed, this is what we might naturally expect; for, as already stated, while these growths, for example, are readily discoverable when situated externally to the meatus, it is quite the reverse when they are confined to the interior of the urethra. In this latter locality they are very certain to be overlooked if, as is often the case, other neighboring organs, as the uterus, vagina, or rectum, present such abnormal conditions as may reasonably be supposed sufficient to account for all the symptoms. And blame should not be imputed to a physician who might deem it unnecessary to dilate the urethra, in order to inspect its interior in a case furnishing, as prominent symptoms, frequent painful micturition, leucorrhea, and dysmenorrhea, he having found, on making a vaginal examination, an anteflexed or

¹ Simpson, Diseases of Women, p. 276.
anteverted uterus with granular erosion of the os, because these conditions are fully adequate to the production of the symptoms named. But, if the dysuria should persist, in such a case, after the abnormalities of the uterus had been remedied or removed, no one would be longer justified in delaying the examination of the urethra and bladder.

The first case of urethral tumor which came under my notice—nearly sixteen years ago—was of very instructive character in many respects. The patient was a woman forty-eight years of age, the mother of a large family of children. Her health had been unimpaired until about six months prior to the time of consultation. Her youngest child was seven years old and the result of her last pregnancy. Menstruation had been irregular for the past two years both as to quantity of discharge and times of recurrence, but presented no unusual features considering her time of life. Six months before, after exposure to inclement weather, she had observed an uncommonly frequent desire to urinate, with sharp pain attending the effort. These symptoms increased in severity, and to them were added the appearance of a mucous discharge, a feeling of heat and throbbing about the genitals, loss of appetite, headache, sleeplessness, and other evidences of deranged nervous action. The physician to whom she first applied regarded the symptoms as due to the climacteric period, and prescribed various remedies for her without, however, any material benefit. I, too, prescribed for her in an aimless sort of way, for two or three weeks, when on one occasion she informed me casually that the stream of urine was sometimes suddenly stopped, the stoppage being attended by excruciating agony. This led me to think that she might be suffering from calculus, a suspicion which was strengthened by her telling me, further, that during the violent tenesmus accompanying the stoppage of the flow, and also at other times when voiding the last drops of urine, she had noticed the escape from the urethra of a few drops of blood. These new features of the case induced me to make an examination of the blad-
der. The introduction of a sound into the meatus was immediately followed by a considerable discharge of blood, and the pain caused by the procedure was so unbearable that I was obliged to desist before reaching the bladder.

On the following day the attempt was renewed under anesthesia. Again, so soon as the sound was passed into the urethra, a smart gush of blood appeared and the instrument encountered an obstruction which was passed with some difficulty. No stone was detected and the sound was withdrawn. On separating the sides of the meatus with the blades of a dressing forceps, a florid granular mass could be seen fairly blocking up the urethral canal. Here was evidently the hitherto hidden source of the poor woman's sufferings, and although unprovided with suitable instruments for the purpose, I resolved to take advantage of the anesthetic condition of the patient and attempt its removal.

Stretching the urethra open as widely as possible with a pair of forceps, I seized the growth with another pair and drew it down so as to bring it partly outside the meatus, and then proceeded to cut away all the visible part of it with scissors. Other portions were removed from the interior by tearing with the forceps until I succeeded, finally, in removing four-fifths, perhaps, of the entire growth. A good deal of bleeding attended the operation, but it had almost ceased when I had finished. It was a very badly-performed piece of surgery, and only temporarily successful, for, although the patient was greatly relieved during the succeeding few weeks, the tumor returned, and I was called upon again to remove it at the end of about three months.

The second operation was more successful. After etherizing the patient, I dilated the urethra by means of a bivalve ear-speculum and was able to bring the growth clearly into view. Commencing just within the meatus, it extended inwards about half an inch and projected about a quarter of an inch from the surface of the membrane. It had a sessile attachment. In structure it was so friable that I
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was unable to elevate it or even to steady it with a tenaculum, the hold of the latter tearing out repeatedly. I therefore seized it with a nasal-polypus forceps, and raising it up, cut smoothly through its base with scissors. The bleeding surface was freely mopped with a diluted solution of persulphate of iron, and a sigmoid catheter left in the bladder forty-eight hours. To the great delight of both the patient and myself, the distressing symptoms all ceased and the tumor never returned.

The second case occurred in a woman twenty-two years old. She had been married four years, had one child two years of age, and had not been pregnant since its birth. For the past year menstruation had been regular as to time, but rather profuse. During the period of gestation she had suffered from both internal and external hemorrhoids, and since her parturition had constant leucorrheal discharge. When pregnancy was about three months advanced, and at times ever since, she suffered from irritable bladder, micturition being both frequent and painful. For a year past the vesical pain had become much more intense, was aggravated at the menstrual periods, and recently had become so excruciating that she would postpone the act of urination until the bladder could be felt distended far above the pubes. Coition, too, had become so intolerable that it had not been attempted for several months.

On making a digital examination of the vagina, I discovered that considerable pain was produced when even slight pressure was made against the urethra. The uterus was anteverted and somewhat flexed, and the vaginal portion large and congested. An attempt to replace the uterus by drawing the cervix forward and pressing the fundus backward at the same time through the hypogastrium gave severe pain. The introduction of the speculum was likewise very painful, especially when the point of the instrument was passing the vaginal entrance. The interior of the vagina was of a deep-red color, as was also
the visible portion of the uterus. The os uteri was patulous and purplish, but free from erosion. As I withdrew the speculum I observed a small quantity of blood upon the instrument, and, on examining for its source, I discovered a drop at the meatus urinarius, caused, doubtless; by the pressure which had been made against the urethra, either by the finger or the speculum. On wiping away the blood, the edge of the meatus presented a red and swollen appearance. Passing my finger again into the vagina and pressing it against the urethra—drawing the finger downwards at the same time—several drops of blood were squeezed out of the passage, and the lower portion of a dark-red fleshy-looking mass came plainly into view. This was enough to establish the diagnosis,—a diagnosis again made in an accidental manner.

Within the next hour the patient was fully anesthetized with sulphuric ether and the tumor removed. Here, I dilated the urethra with Molesworth's instrument so that the finger could easily pass into the bladder. The growth, which was as large as a currant, was found to be attached to the side of the urethra by a pedicle the size of a crow-quill. I experienced no difficulty in reaching the latter, and cutting through it with a pair of blunt-pointed scissors. The stump was then seared with nitric acid applied on a piece of pine wood, which was held against the base for about one minute. The cure was perfect. In a few days the patient urinated without pain or inconvenience, and there was no return of the disease.

The foregoing cases have served to put me on my guard, and now, as a rule, I never treat a patient more than a few days for frequent or painful micturition unsuccessfully without examining the urethra.

A third case, presenting some features of interest, occurred in an unmarried woman, eighteen years of age, who was admitted to the Woman's Hospital of the State of Illinois. She complained of burning pain while urinating, and had such an amount of uneasiness in walking as to
cause her to adopt, frequently, a straddling gait. Urination was not frequent, however, and her general health was unimpaired. An unusual degree of redness about the vulva was the only symptom revealed on examination. There was neither uterine, vaginal, nor rectal disease discoverable, nor was any pain or tenderness complained of during the investigation.

As she had been over-working, rest in bed was enjoined, and cooling sedative applications were made to the vulva. Her symptoms not improving under the use of these means, she took, in addition, successively, copaiva, uva ursi, buchu, etc., with some degree of relief. But so soon as these remedies were suspended she suffered as greatly as before.

On obtaining the foregoing history from the resident physician, I determined at once to explore the urethra and bladder.

The patient, accordingly, having been placed fully under the influence of ether, the urethra was dilated and I discovered an outgrowth of granular scarlet appearance, about three-fourths of an inch within the meatus, occupying, apparently, the entire upper part of the canal. Its attachment was by a broad base involving more than half the calibre of the urethra.

It was removed, but the removal was attended by a good deal of difficulty, caused, chiefly, by the very fragile texture of the growth. The base was then thoroughly cauterized with nitric acid, and a suppository containing two grains opium and one-fourth of a grain extract belladonna placed in the rectum. No subsequent treatment was necessary, and the patient left the hospital cured, at the end of a week.

The remedy for this disease is complete removal; nothing short of this is effectual. This may be accomplished either by ligature, excision, or caustics. The ligature is now rarely used, from the fact that removal by this means is seldom thorough; and even excision, whether performed by the knife or scissors, is far more likely to be certain when followed by efficient caustic applications. The latter alone
— especially in the form of the galvanic cautery — is an admirable remedy in those cases in which the disease is readily accessible. But the expensiveness of the necessary apparatus must always be a bar to its general employment. And, besides, the use of this agent has no advantage whatever over the method of removal by the scissors or knife with subsequent cauterization by nitric acid, in the manner which I will describe presently.

Although I have spoken of this disease only as "tumor," it must be borne in mind that it does not always take the form of an outgrowth, but is frequently seen as a flat or slightly elevated red patch. Indeed, this latter is, perhaps, the most frequent form of its existence within the urethra, for the opposing pressure of the walls of this canal has a tendency to repress excrecent growth. In such cases excision is quite unnecessary; the complete application of nitric acid alone being usually sufficient to insure a permanent cure.

There are two sources of annoyance in dealing with these tumors of the urethra. The one arises from the difficulty of inspecting the interior of the canal and bringing the excrescence fairly into view, and the other, from their loose structure, this being frequently so flimsy as to permit them to break down on the application of the least degree of force. In order to overcome both of these difficulties, I have devised a simple instrument which I have latterly found of the greatest service.

It consists of a tapering glass tube, closed at one end, and provided with a flare or flange at the other end, and having a fenestrum on one side; being similar to, although much smaller than a much-used form of rectal speculum. The instrument is made of glass sufficiently thick to insure against breaking while in use. It is two and a half inches long, and a half inch in outside diameter.\(^1\) With this spec-

1 I have found it convenient to have several of these specula of different sizes, and with different sized fenestra, although the one described and figured will be suitable for most cases.
ulum not only may the most complete inspection of the urethra be made, but such tumors as those I have described will bulge up through the fenestrum, and may then be grasped and excised with the greatest ease and celerity. Likewise, its use affords the most perfect means of cauterizing the base of the growth with nitric acid, or other means, without in the least endangering other portions of the urethral canal. This is highly important, for unless such application be made subsequent to excision, repullulation is almost certain to ensue. The part should not be simply touched with the caustic. This is not enough. A mass of cotton-wool, previously made thoroughly wet with water, should be squeezed between the fingers until it is merely damp. Then, holding it with a pair of dressing forceps, it should be dipped into fuming nitric acid and applied firmly against every part of the raw surface for at least one minute—double the time would do no harm—and then the superfluous acid may be neutralized by pouring into the speculum a solution of bicarbonate of soda. If the operation be done in this way, and so completely, there will be very slight probability of a return of the disease.

Bleeding will occasionally be rather profuse, but it is easily controlled. Usually, the application of the acid will suffice to check it. Where it seems necessary to do so, I have found it a good expedient to rotate the speculum sufficiently to remove the fenestrum of the instrument from its correspondence with the bleeding surface. The pressure against the bleeding part resulting from this change of position has always checked the hemorrhage in a few minutes. Then, bringing the cut surface again into the field of the fenestrum, the acid may be applied as already directed.