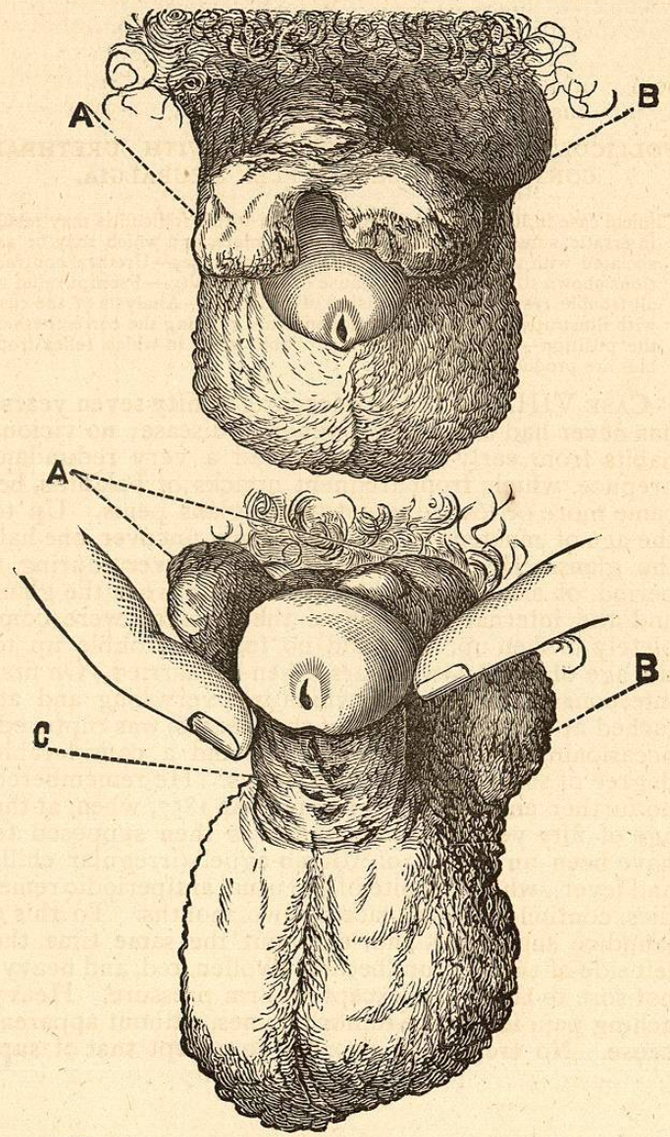
LESSON XLV.

FOLLICULAR SINUSES ASSOCIATED WITH URETHRAL CONTRACTIONS, AND REFLEX NEURALGIA.

Clinical case in illustration of the manner in which folliculitis may result in erratic sinuses extending to distant points, and which may be associated with varied reflex irritations and neuroses—Urethral contractions shown to be the original cause of the difficulty.—Prompt relief to all trouble resulting from division of strictures—Analysis of the case with illustrative diagram—Permanent cure proving the correctness of the position—Explanation of the probable mode in which reflex troubles are produced in such cases.

CASE VIII. X. Y., physician, aged fifty-seven years; has never had any form of venereal disease; no vicious habits from early childhood. Had a very redundant prepuce, which, from frequent attacks of balanitis, became more or less adherent to the glans penis. Up to the age of nineteen years could only uncover one-half the glans. By systematic effort, however, during a period of six months, the adhesions between the glans and the internal reflexion of the prepuce were completely broken up. He had no further trouble up to the age of twenty-two years, when he married. On first intercourse, the frenum (which was very long and attached at the inferior edge of the meatus) was ruptured, occasioning severe hæmorrhage, and a considerable degree of soreness for several days. He remembered no further annoyance up to the year 1857, when, at the age of fifty years, he had what was then supposed to have been an attack of "dumb ague" (irregular chills and fever), which in spite of the usual antiperiodic remedies, continued for a space of two months. To this a jaundice succeeded, and, at about the same time, the left side of the scrotum became swollen, red, and heavy; not sore to the touch, except on firm pressure. Heavy aching pain felt in the tumor at times, without apparent cause. No treatment resorted to except that of sup-

URINARY INFILTRATION FROM FOLLICULAR RUPTURE RESULTING IN ERRATIC URINARY SINUSES.



A. STUMP OF ŒDEMATOUS PREPUCE. *B.* URINARY ABSCESS. *C.* URINARY FISTULA.

porting the mass with an ordinary suspensory bandage. This condition of things remained, without any marked change, for five and a half years, (in September, 1873, being in low condition from overwork) a small carbuncle made its appearance on his nose, and was soon followed by another, three inches in diameter, on the left side of the neck, which lasted, with much suffering and debilitation, for about three weeks. At this time a circumscribed cellulitis occurred at the most dependent portion of the swollen and indurated scrotum. After a few days' poulticing an opening occurred in the integument, which discharged pus, and was filled with shreds of disorganized tissue, similar in appearance to those which had characterized the *débris* of the antecedent carbuncles. For this reason, the scrotal lesion was considered by the patient and his attending surgeon, to be of a carbuncular nature; there was, however, but a single opening. Under simple treatment this supposed carbuncular abscess was discharged, fully, in about a week, and, by the close of the third day following, had filled and perfectly cicatrized. In about a week from this time, another circumscribed cellulitis appeared on the scrotum, about an inch above the first, passing through the same phases, and healing completely in about the same time. Another interval of a week, and a third abscess, precisely like the previous ones in accession and course, occupied the superior portion of the scrotum, after the complete healing of which the entire scrotum was left quite free from inflammation, induration, or any abnormal appearance. During the next week, another lesion, apparently of the same nature, occurred on the corresponding side of the penis, three quarters of an inch from the root, giving more pain than any of the previous abscesses. This, after opening, did not heal, but ran along under the integument of the dorsum anteriorly for about an inch, when it there "broke through and discharged carbuncular *débris*." The two openings were united by a division of the intervening integument, which was thin and red. The burrowing of pus continued along the dorsum penis to the fossa glandis, when the prepuce became completely phimosed. An opening into the preputial cavity in the vicinity of the fossa glandis soon occurred, and pus was freely discharged from the preputial orifice. In trying to wash out the prepuce with a syringe, it was found that the injected fluid traversed the entire length of the dorsum penis, and emerged at the first opening. A small collection of pus was found on the *right* side, which likewise opened into the preputial cavity. At this time the prepuce was very œdematous, and urination was difficult and painful; the pain extended beyond the penis, into the thighs, the calves of the legs, and even occupying the entire heels, not only when urination was attempted, but at night when the patient was endeavoring to sleep. Opiates were given, McMunn's elixir of opium or chlorodyne, but in small doses, from ten to thirty drops, two or three times during the night; larger doses were not well borne, aggravating the unrest. After some weeks, the doctor took a sea-voyage, hoping for benefit from change, as his general health had become greately impaired. After being at sea for some twenty days, with no perceptible benefit, the swelling of the prepuce suddenly increased, and a purple spot appeared on the integument of the dorsum, just behind the glans. The tissues at this point soon gave way, exhaling a fetid odor, and an opening occured about the size of a dime, which became permanent. The tension of the tissues was now somewhat relieved, but urination continued difficult, and the pains in the thighs, legs, and *heels*, which had hitherto been felt chiefly at night, now continued throughout the day. These were severe, almost beyond endurance, notwithstanding the use of opiates internally and various local appliances. Returning from the voyage after an absence of forty-four days (March, 1874), his surgeon divided the prepuce superiorly from border to base, the incision terminating at the gangrenous opening before mentioned. This gave great relief to the dysuria, and samewhat mitigated the pains in the thighs, etc., which were described as of a heavy, aching character, as from cramp, or excessive muscular tension. An aggravation of his trouble now occurred from the performance of

duties which devolved upon him (as the presiding officer of a State medical convention), which induced him to submit to further surgical procedure. A portion of the swollen prepuce was removed; as much as was thought essential to completely relieve constriction, and to get at the bottom of the sinuses, for treatment. The cut surfaces of the prepuce were left open and healed kindly, with the exception of a small opening under the base of the glans, through which, finally, a communication was established with the urethral canal. This fistula was followed, in the course of three or four days, by a second, from within outward, and alongside the first, on the opposite side of the median line. After the second opening was established there was some relief to the passage of urine, but none to the aching pain of the extremities. The supposed carbuncular troubles on the scrotum and on the penis were each preceded by a distinct circumscribed induration, involving the thickness of the integument and not movable over the cellular tissue. Similar indurations, smaller in size, now appeared on the under surface of the penis, to the number of three, which each resulted in a urethral fistula, through which urine passed at every urination. These were about half an inch from the junction of the penis with the anterior of the scrotum, and just to the right of the median line. Nothing further was done in the way of surgical interference, and no improvement occurred either in the urinary difficulty or the penis or in the neuralgia of the inferior extremities. Consultations, with more than a dozen surgeons to whose notice the case was brought, failed to afford the patient any relief. Not one had ever seen anything like it. The general opinion was opposed to the idea of malignant trouble. The difficulty was considered of furuncular origin and to have arisen from poverty of the blood, dependent upon overwork. No treatment was advised, except that addressed to the general building up of the system. One surgeon advised amputation of the penis. The patient then decided to come to New York for relief, arriving on September 17, 1874, with letters to the principal surgeons of this city. He was seen by several, the late the distinguished Dr. William H. Van Buren, Prof. Thomas M. Markoe, and others. The opinions which an examination of his condition elicited were mainly in accord with those already mentioned, viz., a disease "resulting from poverty of the blood from malaria, etc., and excessive use of opium"—causing the neuralgic pains, etc., from which the patient continued to suffer night and day, and so severely and constantly that a complete demoralization of the patient was imminent.

Priapism added a new element of distress, and with only the hope of obtaining a possible relief from this new complication, by means of the *cold-water coil* which I had just then contrived, he was referred to me. An examination of the penis revealed the condition represented in the woodcut which precedes this lesson, executed from a drawing which I made, at the time of the patient's first visit to me. I found the glans exceedingly sensitive to touch. The patient was passing his water chiefly through a fistulous opening at the base of the glans, inferiorly. The meatus urinarius was contracted to 13 f. Bulbous sound 13 f. was passed with much pain, hugged closely for one inch until it emerged from the first fistulous opening. This opening was also terribly sensitive; an attempt to examine it causing a profuse perspiration and much complaint. It admitted with difficulty No. 26 f., and then passed down without force $2\frac{1}{4}$ inches, where it was arrested by a stricture. Bulb No. 23 f. passed through, and was felt to be free at $2\frac{3}{4}$ inches. My own view of the case, based upon the experience acquired from previously observed cases, where exactly the same character and locality of pain had been found to be dependent upon urethral contractions, determined me to advise complete division of all urethral contractions as the best and only means of relief. The propriety of this procedure was concurred in by Drs. Van Buren and Keyes. The doctor, after becoming fully cognizant of my views and reasons for operation, consented to submit himself wholly to whatever was deemed necessary to carry out the proposed operative procedure. The operation was set down for the following day, October 27, 1874. In consequence of previous engagements, Drs.

Van Buren and Keyes were unable to be present, but advised proceeding with the operation. By my invitation, Prof. Thos. M. Markoe and Dr. Geo. A. Peters were present. The patient was put under the influence of chloroform (which he had often taken for relief of his pains, and with perfect impunity) by my assistant, Dr. Fox; and I proceeded first to divide, fully and freely, the contraction from the meatus urinarius to the first fistulous opening, which was of calibre 13 f. This was done so that 31 f. bulbous sound could be easily passed. I then divided the orifice of the main fistulous opening, so that the same bulb could readily enter. An examination of the deeper urethra was now instituted, and it was found that a large-sized probe passed down for one and a half inch, and thence out of the urethra, to the right, until it entered, easily, the urinary abscess, situated at the root of the penis (marked in the cut), and which had existed for several months. (The patient complained that he always felt pain, on urinating, in this locality.) The stricture at 2¼ inches was then defined by 23; and by aid of my small urethrotome this stricture was dilated to 30 f., and divided; 31 solid-steel sound was then passed from the meatus, through the entire urethra, and into the bladder, without force. When the patient came out from the influence of the anæsthetic, he expressed himself as feeling better than for a long time. Bleeding was slight. The first attempt at urinating was painful, but urine was passed more freely than for years. Without opium or any other narcotic, he passed a comfortable night, sleeping for nine hours. On the following morning, he stated that he had entire freedom from all the pains so long endured, and that for a similar night's rest he "would be willing to submit to a similar operation every night of his life." There was no return of his pain in the thighs, legs, etc. After two days, I attempted to pass an instrument for the purpose of keeping open the divided strictures; but the pain was so great that I desisted, believing it better to wait until the sensitiveness had subsided, even at the risk of speedy contraction of the deeper stricture. In a week, the patient was out. Went to Brooklyn on a

visit. A pair of tight pantaloons, and an evening spent in playing billiards, caused some return of his nervous disturbance in the inferior extremities; but applications of warm cloths to the penis soon relieved him. I then proposed to examine the condition of the urethra, and found, as I had expected, a recontraction of the deeper stricture. On Sunday, November 8th, Drs. Peters, McBurney, and Fox present, I again divided the deep stricture under chloroform. From that time to the patient's departure to his home, December 1st, he had no further trouble. His recovery seems to have been complete. He left with the promise to communicate with me at once if he had any return of his trouble. Among the other results of the operation, the urinary abscess on the right side of the root of the penis disappeared entirely, and this within ten days after the first operation. The subsequent history of the nervous symptoms was one of continued improvement. Recontraction of the stricture at 2¼ inches occurred, requiring a second division, but the reflex symptoms did not return, and he had, when heard from in 1881, continued in good health.

My own view of the origin of the trouble in this case is that, from some unrecognized cause, a follicle in the scrotal portion of the urethra became the subject of inflammatory action; that this follicular inflammation finally resulted in ulceration and the formation of a fine and somewhat tortuous sinus, extending from the follicular point of exit in the urethra, down to the bottom of the scrotum; that the "dumb ague," which the patient complained of as occurring at about this time, was a *urethral* fever, and *marked the progress of the sinus*, which, after reaching the most depending portion of the scrotum, remained in great degree quiescent for five and a half years; that the depressed condition of health, resulting from general causes, finally brought about an active inflammation, terminating in an abscess at the bottom of the sinus; that when this urinary abscess, occurring at the bottom of the scrotum, supervened, the cellulitis accompanying it closed the sinuous tract for an inch, and, after the first abscess had

healed, a second cellulitis occurred at the point to which the sinus had been closed by the previous inflammation, and the second abscess resulted. The inflammation attendant upon this, closing the sinus for another inch or so, after a brief period the third abscess occurred. In the same time, and in the same manner, a fourth. Finally the integument of the body of the penis became involved in the ulcerative process, proceeding to the anterior portion of the organ. Inflammatory paraphimosis, and the consequent tension of all the tissues at this point, naturally gave rise to the urethral fistulæ which appeared in this vicinity.

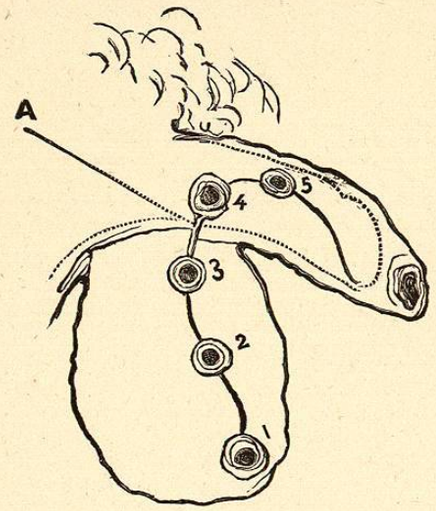


DIAGRAM SHOWING THE LOCALITY OF THE DEEP STRICTURE, COURSE OF THE URINARY SINUS, AND LOCALITY OF THE ABSCESSES.

A, Deep stricture. 1, First abscess, connected with 2, 3, 4, and 5, the succeeding abscesses, by the sinus, which commenced at *A*, the point of stricture, and extended down to *I*, the bottom of the scrotum.

The reflex troubles in this case, appear to me, to be in exact accordance with those often found associated with urethral stricture, *especially at or near the meatus urinarius*. They are dependent, possibly, upon implica-

tion and irritation of nerve-fibres or corpuscles in the cicatricial tissue, or upon long-continued interference with the discharge of urine, in persons debilitated by influences calculated to depress the sympathetic nervous system.