LESSON XLVII.

PROSTATITIS.

Manner in which prostatitis results from gonorrhœal urethritis—Anatomy of the prostate gland—Acute inflammation of rare occurrence—Causes of—Early symptoms of the accident—Sometimes resulting in abscess—Indications of such result—Manner in which abscesses of the prostate terminate—In rare cases producing urinary extravasation—Time usually required for suppuration to occur—Diseases which may be mistaken for acute prostatitis—Method of correcting errors of diagnosis.

We have seen how gonorrhœal inflammation extends by continuity of surface along the lining mucous membrane of the urethra into its prostatic portion, and dipping into the seminal ducts, which open into the urethra at this point, reaches the vas deferens, and travelling along its walls, finally reaches the epididymis occasionally involving even the secreting structure of the testicle. This is one of the most frequent and painful of the complications of gonorrhœal urethritis. We have still another, which, though rarely, occasionally occurs, where the inflammation has reached the prostatic portion of the urethra. The seminal ducts, you will remember, open into the urethra on the inner sides of the sinus pocularis, which is situated on the inferior floor of the urethra, at about the middle of the prostatic portion. Along the outer sides of this sinus, open another series of ducts, ten to twenty in number, which communicate by a lining mucous membrane (continuous with the urethral) with the substance of the prostate gland which surrounds the urethra, and gives its name to this portion of its course. The structure of the prostate is mostly muscular tissue, arranged in circular bands, which surround the urethra, and whose action is involuntary. The glandular substance is arranged in pouch-like follicles opening into elongated canals which go to join the ducts previously described. Fortunately for subjects of inflammation of the prostatic portion of the urethra,

this gland is of low vitality, and is not readily involved in inflammatory action, so that acute inflammation of its substance is of rare occurrence: even though gonorrhœal inflammation invade the prostate urethra and linger there for weeks and even months, as it is sometimes known to do. Acute prostatitis occasionally occurs independently of urethral disease, and may be caused by violence done to the gland through urethral injections more or less irritant, through unskilled efforts to pass a sound or a catheter, or even in skilled hands, through the forcible distension of the prostatic urethra by means of sounds, bougies, or urethral instruments. Excitement from prolonged and frequent coitus, also excessive purgation, have been known to set up acute prostatitis. To large doses of copaiba and cubebs, have been attributed the occurrence of this disease. But the excessive use of stimulants, venereal indulgence, exposure to hardships or sudden changes of temperature during the course of a gonorrhœa, may be considered as the most prominent causes of acute prostatitis. Onanism and congestion due to stricture are occasional causes, especially stricture, far back; also straining and dilatation of the canal by the urine. The early symptoms of this disease are pain and a sensation of heaviness in the perineum, frequent desire to micturate, pain on micturition, leaving a dull aching feeling for some time afterward. Pain in the perineum is deep-seated and is increased by the erect posture or by sudden jarring movements of the body; the pain often shoots up along the spermatic cords, and is often very severe in the lower part of the back. There is also pain on defecation, and especially after the disease has progressed somewhat. A frequent desire to defecate when no fecal matter is present in the rectum, and a constant sense of distension as from a foreign body in the gut. The cause of this will be explained by the introduction of your finger, well oiled, into the rectum. It at once impinges upon the swollen gland, which may have enlarged from its natural size (which is about that of a horse-chestnut) to twice or thrice that size, within forty-eight hours from the commencement of the attack.

Sometimes the enlargement is slower, however, though you may have nearly all the same symptoms present before much enlargement takes place. The feces, if the bowels were at all constipated would, theoretically, be flattened by encroachment of the enlarged gland upon the calibre of the rectum. Practically I have never verified this. As the disease progresses, you may have the difficulty in passing water increased so that urine is only voided drop by drop, and even complete retention may occur. The pain in the perineum, assuming a throbbing character, is an indication of threatened or commencing suppuration; then the occurrence of chills, showing that suppuration has occurred. Abscess forming, and finally opening either into the rectum, the urethra, the bladder, or by the side of the urethra through the perineum, or finally into the cavity of the peritoneum. It is said, that in some rare instances, the disease terminates in gangrene. The probabilities, however, are that the disease has in such case been complicated by extravasation of urine. Fortunately, however, the most frequent termination is in resolution, which, under proper treatment or favoring circumstances, may take place at any point in the course of the disease, before suppuration has become established. The usual time for the accession of the acute constitutional disturbance varies in different cases. In some there is much, in others it may even go on, without any very marked symptoms, to the formation of pus in from eight to twelve days. The only diseases you are at all liable to mistake for acute prostatitis are inflammation of the neck of the bladder, stone in the bladder. The constant or frequent desire to go to stool, the pain after micturition, as well as during the passage of water, the flattened form of the feces when solid, and lastly and correcting any error you can possibly have made, on introduction of the finger into the rectum, you demonstrate the enlarged and inflamed condition of the gland beyond the chance of a doubt.

LESSON XLVIII.

Acute prostatitis continued—Ordinary mode of examination of the rectum for diagnostic purposes not the most efficient or convenient—Author's method—Its advantages explained—Not only the prostate gland but the vesiculæ seminales and adjacent structures within easy reach of the finger—Condition of the prostate and vesiculæ seminales, and often of the bladder readily ascertained through examination by the rectum in the manner proposed—Specific medicines and injections to be discontinued on occurrence of acute prostatitis—Treatment of acute prostatitis—Retention of urine from prostatic enlargement—Catheters best adapted for the relief of this accident—Instructions in regard to their use—Abcess of prostate diagnosis and treatment of—Chronic prostatitis — Diagnosis—Treatment — Seminal weakness associated with chronic prostatitis — Masturbation usually the cause — Treatment of but little avail while this habit is continued.

THIS examination will be most conveniently and efficiently made, *not* in the ordinary way, by placing the patient on his back and inserting the finger between his thighs, but seated in a chair you direct him to stand squarely, his back presenting; have him drop his pantaloons and drawers, and, with his knees straight, bend forward at a right angle. The anal orifice is thus brought directly opposite and at a convenient height for the introduction of your finger. This well oiled is then passed in. If with some pain, direct him to strain slightly and thus loosen the sphincter. Your finger will then readily enter its whole length, and you will be able to sweep the rectum with it to the greatest advantage—reaching easily the prostate in its entire extent and also the vesiculæ seminales, and the adjacent structures of the pelvis. Pressure with the opposite hand above the pubis (especially in persons with thin abdominal walls) will give still further information in regard to the size and condition of the prostate, and to some extent of the bladder also. In quite a considerable proportion of cases you will recognize not only the exact size and condition of the prostate, but will be able to recognize changes in the size and form

of the vesiculæ seminales—to which the inflammation of the prostate not unfrequently extends.

Should the symptoms of this disease come on during an attack of gonorrhœa all specific treatment by medicines or injections, if in use, should at once be discontinued. In most cases the discharge ceases in a great degree if not entirely on the accession of inflammation in a neighboring organ; the urethra relieved apparently by the counter-irritation in its immediate vicinity. Whether the discharge ceases or not, we must now give our attention to the graver difficulty. If the symptoms come on with much suddenness and severity, free local blood-letting by leeches should at once be resorted to—ten or twelve and even twenty (if the patient be robust) Swedish leeches may be applied to the perineum, and followed by hot poultices or fomentations of Indian meal or cloths wrung out of hot water and covered with oiled silk. If the bowels are constipated a full dose of citrate of magnesia or Epsom salts should be given. The bowels should be kept soluble by saline aperients during the entire course of the attack, as the passage of hardened fæces not only gives intense suffering to the patient, but aggravates the inflammatory tendency. Full doses of morphia, say from a quarter to half a grain combined with the oleum theobroma—the cocoa butter—in the form of suppositories should be introduced into the rectum as often as once in 4 or 6 hours, or even less if necessary to quell the pain. You may also combine with this (or use in place of it, if from any idiosyncrasy of the patient opiates are not well borne) the extract of belladonna in quantity from $\frac{1}{4}$ to $\frac{1}{8}$ grain, until the specific effects of the drug are manifested. The acridity of the urine must be counteracted by the administration of alkalies—10 grains of bicarbonate of potash, in a couple of Brockedon's wafers, such as I exhibited to you some time since—or dissolved in mucilage three or four times a day. Flax-seed tea slightly acidulated with a little lemon juice is also beneficial as a drink. An occasional general bath of water not less than 100° Fahrenheit will give comfort and benefit your patient. Hot-water bags contrived for the purpose or

ordinary rubber bags are admirable for applying heat to that part. Sitz baths should be avoided. From the position they necessitate the blood gravitates to the inflamed parts, and pain is rather increased than relieved by them. I need not say to you that the recumbent posture must be rigidly maintained throughout the course of the disease. Should retention of urine occur, it will be necessary to introduce a catheter and draw it off. This is an operation of no little difficulty in some cases, and one which requires great care and knowledge of the nature and situation of the obstruction you will be likely to meet with. The swollen prostate pushes up against the neck of the bladder, forming a sort of valve which obstructs the passage of the urine, and interferes also with the passage of the instrument. A moderate sized silver catheter may be carefully introduced and passed gently down to the prostatic portion of the urethra, after the manner I explained to you some time since. Arrived at this point, press it gently and cautiously onward, until you meet with the valvular obstruction previously mentioned; then pulling the penis well forward depress the handle of the instrument very slowly and carefully, until it enters the bladder. You may find it necessary, and will certainly be aided in the operation by introducing the forefinger of your disengaged hand into the rectum, and with it guide the instrument into the bladder. A gum-elastic catheter, if at hand, is better—a conical bulbous one can often be made to enter the bladder without much difficulty, or the soft rubber catheter stiffened with a slight stylet or by my prostatic guide is best of all as a rule. The gum-elastic catheter with a short permanent elbow is recommended for cases where the third lobe is especially enlarged. Where the swelling of the gland is considerable it pushes the bladder upwards, elongating the neck, and requiring a much longer instrument to reach the interior of the bladder than that in use where no swelling is present: a long abruptly curved catheter named the prostatic catheter is used for this purpose. In using any instrument where prostatic obstruction exists, keep its point in contact with the upper surface

of the urethra, and it will usually guide you safely into the bladder. The upper portion of the canal being attached to bony and ligamentous structures, its course is with difficulty interfered with, while the inferior aspect is surrounded by yielding structures that easily allow irregularities and deflections of its walls to occur. When prostatitis goes on to the formation of pus as indicated by rigors, a throbbing sensation, etc., it is very desirable to ascertain as early as possible at what point in the gland suppuration has occurred. Abscess rarely occurs in the middle lobe; when occurring in the lateral, it is most likely to point into the urethra, and next most frequently into the rectum. In either case it is not necessary to interfere early, unless retention of urine demand it. Careful examination with the finger in the rectum may discover the presence of fluid in some portion of the tumor, or you may find obscure fluctuation in the perineum, showing a tendency of the abscess to point in this direction. An early incision with a long straight bistoury should be made in the tumor at this point in the median line, care being taken to avoid the bladder on the one hand and the rectum on the other. The sooner the pus is evacuated when the tumor points towards the perineum, the less trouble you will have; If left to itself, being pent in by the deep perineal fasciæ, extensive burrowing is likely to occur, and in this way pus may find its way into the cavity of the peritoneum, when a fatal peritonitis would in all probability ensue.

When the abscess points toward the urethra, it may be opened by the point of the catheter when endeavoring to evacuate the contents of the bladder in case of retention: the pus here escapes through the urethra, and the danger is that infiltration of urine will take place into the cavity of the abscess and the tissues adjacent. This can only be avoided by drawing off the patient's water through a catheter, until the abscess has filled up and healed. When the abscess points toward the rectum, it may be broken by the straining efforts at stool, or, if the fluctuation is well defined, it may with advantage be punctured with a curved trocar. No

after treatment is necessary. I now recall a case of this sort, where the abscess was ruptured at stool, and went on to a rapid and perfect recovery. Hourly doses $\frac{1}{10}$ gr. calx. sulphurata will limit and may prevent suppuration.

More or less enlargement of the gland is left after an attack of acute inflammation. This is best treated by the use of the bromide of potassium in doses of from 10 to 15 grains three time a day in a little sweetened cinnamon water.

Rest on the back is the great necessity; milk or plain diet and diluents during an acute prostatis.

There is another form of trouble of the prostate, termed by most writers on the subject chronic prostatitis, which I believe rarely goes on to formation of abcess, rarely or never involves the muscular or cellular tissues of the gland to any extent, but is confined almost entirely to the mucous lining of the ducts and the secreting follicles of the organ. (I can find no record of subacute inflammation terminating in abscess from this cause.) I believe it to be a purely catarrhal inflammation. It sometimes follows a gonorrhœa, but most frequently is caused by onanism or excessive coitus—generally by the former (onanism) alone. It is characterized by a tenderness on pressure over the gland, but produces but little if any perceptible enlargement. A turbid viscid secretion is poured out in greater or less quantity, and most during the act of defecation, and usually impresses the patient, and not unfrequently the attending physician, with the idea that it is a gleety discharge from the urethra, or a seminal discharge. Under the microscope it shows epithelial scales of the columnar variety with which the prostatic canals are lined, and the squamous variety which line the secreting follicles; these are mixed with mucous and perhaps an occasional globule of pus.

The somewhat sudden appearance of this fluid, so different in general appearance from the gleety discharge which may have preceded it, naturally attracts the attention of the patient, and its most salient characteristics suggest to his mind the probability of its semi-

nal character. Not unfrequently this idea is communicated to the medical attendant, who, if he is not familiar with this disease, and has not brought his microscope to bear on it, will be very likely to confirm the notion of the patient, and consider the case one of spermatorrhœa. The microscope alone can clear up the diagnosis. The scanty appearance of pus will shut out the idea of this increased discharge being due to the urethral trouble; the absence of spermatozoa will exclude the idea of spermatorrhœa, and the presence of the epithelial scales from the canals, and follicles of the prostate, will force the conclusion that the discharge is diagnostic of catarrhal inflammation of the prostate gland. Another point which is also of interest we have associated with it as a diagnostic mark also—the stream of urine less forcible than natural, and a dribbling at the termination of the urination, which would lead you to suspect stricture: but the passage of a full sized sound will clear up this source of error. The treatment of catarrhal inflammation of the prostate should begin by explaining the condition of things thoroughly to your patient, and put his mind at rest as to its true character. Remove as far as possible all circumstances which may tend to induce unnatural flow of blood to the part; avoidance of venereal act and thought should be insisted on. Advise him to sleep on a hard mattress and with light clothing and on his side. Cold bathing of the parts night and morning; to avoid eating at night, and be careful that his diet at all times is light and easily digested, and to keep the bowels in regular order by saline aperients—Kissingen and Congress waters or the effervescing citrate of magnesia. If this do not arrest the difficulty, counter-irritation to the perineum by means of tincture of iodine, or if necessary blistering ointment, is advised. All local applications are, however, only to be resorted to when other means have failed, as they make the patient very uncomfortable, and are, I believe, of uncertain value. Tannic, acid with cocoa butter (ten grains to the ounce), applied with Van Buren's cupped sound, nightly, is sometimes beneficial. I have in cases that have proved obstinate occasionally

used injections of solution of the nitrate of silver of a strength of from 20 to 30 grains to the ounce—using the long syringe loaded carefully with four or five drops only of the fluid, and repeating the operation when necessary about once in ten days, and never oftener than once a week. In hypochondriacs especially, *change of air and scene*. A case which was under my care some time since, which, though much relieved by the above method for a time, continued to suffer from this prostatic discharge, and also from much mental distress on account of it, as he intended marrying as soon as he could get rid of his discharge. I advised him to go abroad, and in every way possible endeavor to forget that he was not well—to cease all treatment and all examination of the parts, and not to come back under six months. After an absence in Europe of three months, he returned apparently well, married, and had no further return of the trouble.

Occasionally, or rather I should say usually, this disease is associated with nocturnal emissions of semen, more or less frequent. No treatment other than that above recommended is necessary on this account. It is well for you to assure your patient that one or two, or even twice that number of involuntary seminal emissions during the month are not inconsistent with perfect health. Sometimes after the discharge has disappeared it may be that the patient finds his erections are not perfect before the discharge of semen, and that during an orgasm the ejaculation is premature. This is the result of the relaxed and irritable condition of the mouths of the seminal ducts, and is a source of great trouble when not properly understood. Chronic prostatitis as a result of gonorrhœal inflammation is, as I have previously mentioned, usually associated with increased frequency of involuntary nocturnal emissions. This trouble commonly passes away with the disappearance of the prostatic discharge, but it sometimes occurs that an attack of gonorrhæal prostatitis is not only accompanied by increased nocturnal emissions, but that it is associated with or followed by a true seminal discharge occurring during defecation, or mingled with

the urine of the patient. In all such cases—and I have seen many—I am confident it will be found that the patients are or have been habitual masturbators, and that the disease has been ingrafted upon a diseased mucous membrane previously deteriorated by this practice. These are bad cases to manage, especially if, as sometimes occurs, the vicious practice is still kept up.

LESSON XLIX.

CYSTITIS.

Gonorrhœal cystitis rarely occurring before the third or fourth week of the disease—When occurring earlier usually the result of injections or instrumental interferance — Other causes — Symptoms of cystitis—Treatment—Stricture of the urethra as a cause of cystitis—Clinical case in illustration—Prompt relief of threatened cystitis by division of stricture—Permanence of cure—Necessity of examination for stricture in cases of threatened or present cystitis—Importance of confining examination to the anterior or straight portion of the urethra—Exploration beyond the bulbous portion in such cases always perilous, and, as a rule, to be avoided.

An occasional complication of gonorrhœa, is the extension of the disease to the bladder. This rarely occurs before the third or fourth week, from gradual extension of the inflammation along the urethra. Its occurrence, however, is not infrequent through the use of injections.

Even the forcible injection of warm water has been known to engraft a cystitis upon a recent gonorrhœal inflammation. It is, however, in the later stages of a gonorrhœa, when the disease has crept back in a mild form into the deeper urethra, that from some especially provoking cause the inflammation is suddenly increased, and involves the mucous membrane of the vesical neck. The effort to drive injections back into the deeper urethra in the later stages of gonorrhœa, not unfrequently, results in their entrance into the prostatic urethra and the bladder, unless care is taken to prevent it. Hence the occasional occurrence of irritation causing frequent and painful urination in the later stages of gonorrhœa. Quite frequently indulgence in sexual contact, with or without connection, especially if combined with alcoholic excess, will cause a sudden aggravation of the urethral inflammation and its extension to the bladder. Passage of urethral instruments into the