Glycerol of Tannin, diluted from 1 to 5 times with water, is an excellent tonic astringent for instillation in some cases, but it is less useful than the others.

Résumé of the Treatment of Posterior Urethritis

As I have said in another place, chronic gonorrhea is posterior urethritis, and the description of the treatment of posterior urethritis will, accordingly, be adapted to embrace that great multitude of cases whose only symptom is gleet, whether that gleet be due to simple or to gonorrheal posterior urethritis, prostatitis, periprostatitis, or to vesiculitis.

The first requisite is a thorough diagnosis. Inspection of the urine and palpation of the urethra will rule out grave lesions of the anterior canal (any doubts about stricture are set at rest by the first passage of an instrument). Rectal palpation reveals the presence or absence of parenchymatous prostatitis, periprostatitis, and vesiculitis.

Having thus made an accurate diagnosis, a rational treatment may be instituted. The rules of diet, urethral hygiene, and systemic medication must always be enforced, with a few restrictions. The patient must often be prepared to undergo a long course of treatment, and while the local treatment is the actual efficient agent in his cure, he can expect no advantage from this unless he keep himself in as healthy and robust a condition as possible. Hence it is more than ever essential at this stage of the disease that the balsamic administered be entirely compatible with the patient's digestion. When the inflammation has lasted several months, it is often quite useless—the patient's urine being neither too dense nor too acid—to administer any balsamic or alkali. At this stage tonics are far more likely to do good, and, in some of these cases, the stimulation of a little alcohol, which is so deleterious in the early days, may be distinctly beneficial. Simple urethritis may sometimes be cured by alcohol alone, a fact that always gains wide circulation among the patient's friends and encourages them to disastrous efforts in that direction.

Simple Urethritis.—To return to the local treatment: for non-specific posterior urethritis thallin sulphate and silver nitrate are the best local remedies, with an occasional exception in favour of protargol, potassium permanganate, and copper sulphate.

Mild Gonorrheal Posterior Urethritis.—This inflammation usually yields to irrigations of permanganate, beginning at 1:8,000 or 1:6,000, and repeated daily at 1:4,000. Protargol by instillation or irrigation may do better, while in some cases I have often found the admixture of silver nitrate (about 1:20,000) with the permanganate irrigation the most efficient.

Intractable Posterior Urethritis.—This may be said to exist when the inflammation does not yield in the course of a few weeks to the treatment just mentioned. Such cases are usually complicated by parenchymatous prostatitis, by vesiculitis, or by contracture of the neck of the bladder. One of three courses of treatment is likely to prove efficacious, viz., rectal douche and prostatic massage, hygiene and tonics, or perineal cystotomy.

The douche and massage properly belong to the treatment of parenchymatous prostatitis and of vesiculitis (see below); but the douche is applicable to these cases as well, since there is always a slight implication of the prostatic parenchyma or of the vesicle. The effect of the douche may not be immediately visible to the patient, but several weeks of this treatment, combined with appropriate irrigation, will often work a great change in the patient's urine, even though the individual treatments have no visible effect.

At this stage of the disease it may be advantageous to drop the balsamic and to administer a tonic in its place. And it may be proper to encourage the playing of tennis or of golf. I have even known horseback-riding to effect a cure, in spite of, or perhaps because of, the contusion of the prostate thus incurred. But this is a matter to be decided differently for each case. (I believe bicycles and railroad trains are always injurious.) In selecting a form of exercise the patient's habits, taste, and constitution must all be considered, and the results of the exercise closely watched. If he returns refreshed and exhilarated, the treatment suits him, even though it produce no change in his local symptoms. On the other hand, I have known a desperately chronic case cured by local treatment, rest in bed, and diuresis by mineral waters.

There remain a few cases that none of the above measures can cure. Their proper course is to go away for several weeks to an unaccustomed climate, taking with them an injection (anterior or posterior) to check the discharge. I have seen patients cured when all other means had failed by simply crossing the Atlantic and returning on the same ship, or by a trip to the Adirondacks or to Asheville. They return either entirely cured or in such good condition that it is only a matter of a few weeks of local treatment before they are well.

Finally, the last resort is operation. If there are symptoms of contracture of the neck of the bladder (p. 317) perineal section with drainage is required, and the same treatment may be efficacious in mere chronic posterior urethritis; but it should be reserved abso-

lutely until every other method of treatment has failed. Again, when there is recurring epididymitis, nothing cures that complication, and with it the posterior urethritis, so surely as vasectomy (p. 729). Tying off the vas in these cases acts quite as an acute epididymitis sometimes does. The inflammation seems to expend its force in the epididymis—I know no explanation of the fact—and with the resolution of the inflammation there, whether spontaneous or by ligature of the duct, the posterior urethritis disappears.

Parenchymatous Prostatitis.—The treatment of parenchymatous prostatitis is that of posterior urethritis, as detailed above, with special attention to the local treatment per rectum. I have derived no benefit from the application of ointments or from electricity by this route, and confine my efforts to douches and massage. The hot douche is applicable to all cases, the cold douche to neurotic cases, massage never to acute cases and only to those chronic cases that are not benefited by the douche.

Periprostatitis, if chronic, is best treated by massage and douche together.

Abscess, Prostatic and Periprostatic (see p. 140),

Irritable and Relapsing Cases.—These are often only made worse by local treatment. Hygiene and tonics are our weapons here. Urotropin seems beneficial in a few of these cases.

Neuralgic Cases.—Neuralgic cases demand the patience of Job. Some do well under tonics and hygiene; others under nitrate of silver; others under rectal douche, hot or cold, under massage, or under vibratory percussion.

Harmful Treatment.—Finally, I have found certain methods of treatment harmful, and as several of them are constantly employed, I venture to record my objections, although I know that many experienced practitioners will disagree with my conclusions. When convinced of error it will be a pleasure to change my opinion.

1. Sounds and dilators I object to absolutely. The massage and pressure of these instruments are beneficial in chronic anterior urethritis almost always, in prostatic hyperesthesia and congestion often, in simple posterior urethritis rarely, in gonorrheal posterior urethritis never.

2. Urethroscopy I object to on the same ground. The mechanical injury wrought by these instruments outweighs all the benefits they bestow.

3. The use of large rubber catheters or of woven instruments is harmful in the same way, but to a less degree.

4. Forced retrojection—forcing the cut-off muscle by the weight of a column of water—is not necessarily harmful, but I believe that

in acute cases it does harm fully as often as good. In some cases with a tendency to spasm of the cut-off it is quite impracticable. In acute cases and in many chronic ones there is a very real danger of lighting up an epididymitis by this treatment. Yet I have occasionally found it useful in sluggish chronic cases, the gentle massage of the column of fluid acting as a stimulant.

TREATMENT OF GONORRHEAL CYSTITIS

Like any other acute cystitis the gonorrheal inflammation calls for attitude (rest), alkali (bicarbonate of soda or liquor potassæ), anodyne (repeated hot hip baths about 104° to 110° F., opium suppository—watery extract 3 to 6 centigrammes with extract of belladonna 1 to 2 centigrammes repeated every few hours, if required). Many light cases, however, go about without much distress, often terminating spontaneously in a few days, and being only troublesome by day.

The question always arises in gonorrheal cystitis when to begin local treatment of the neck of the bladder. If improvement commences promptly under general treatment and is progressive, as is often the case, the patient may be spared the possible danger of complication incident to instrumentation in the urethra. But in any case when the symptoms progress rapidly it is allowable to call in local means very early in the endeavour to destroy the gonococcus. These means are permanganate-of-potash irrigation and nitrate-of-silver instillation.

The former has many advocates, and sometimes seems to do very well; personally, I rather prefer the latter.[1] In a mild case the strength of silver nitrate may be 1:500, 20 drops being instilled, while the bladder is empty. In very acute cases I do not hesitate, after first giving the patient a morphin or phosphate-of-codein hypodermic injection, to instil at once a 2% solution of nitrate of silver, and if the effect be good, as is generally the case after the first pain is over, to repeat that instillation or a stronger one once a day for 3 or 4 days, then rest a few days and renew the course if required.

The effect of this expedient is sometimes startling, and the slight risk of epididymitis assumed is as nothing compared to the possible horrors of prolonged chronic gonorrheal cystitis with contracture of the vesical neck, a condition only properly overcome by perineal section.

[1] In my second edition of The Venereal Diseases (1900, p. 94), Dr. Chetwood's milder views on this subject have been allowed to preponderate.

When in gonorrheal cystitis the impetus of the disease is arrested, then permanganate of potash or mild nitrate of silver 1:10,000 to 1:2,000, or protargol 0.25% to 1%, aided now by balsams and diluents is very useful. The last-named cannot be employed during acute gonorrheal cystitis for mechanical reasons.

TREATMENT OF PROSTATIC AND PERIPROSTATIC ABSCESS

Rest in bed and hot hip baths are essential. Fournier counsels the early application of 15 or 20 leeches to the perineum. Hot poultices to the perineum are comforting and helpful. Hot enemata may be employed to evacuate the rectum. Anodynes and laxatives must be used, and perhaps the catheter, a soft one by preference (tied in rather than too frequently introduced). Aspiration may be required. When pus is suspected, as indicated by persistence and intensification of symptoms, chill, mild urinary sepsis, etc., careful examination of the prostate should be made from time to time by the finger in the rectum. When fluctuation or aspiration reveals pus, it may become a nice question to decide whether (1) to let it burst by the urethra, if it seems to be small, central, and near the surface of the prostatic sinus; (2) if there be multiple small foci, to make a perineal incision to cut down the bladder neck and prostatic lobe and to insert a tube to cure retention, to ward off sepsis, and to prevent thrombus of the prostatic veins; (3) to open by the simplest of all routes, through the rectal wall (and this is best, if there be adhesion and the pus is pointing towards the rectal cavity), or (4) to open by a free prerectal incision of the perineum, a most admirable method in case of an extensive collection of pus, and particularly for periprostatic suppuration. Positive rules in any of these directions would be unwise. Surgical tact must be the guide; all things considered, the median perineal incision is preferable in case of doubt.

TREATMENT OF URETHRORRHEA AND PROSTATORRHEA

These two maladies, as they produce a flow from the urethra, are often treated like cases of chronic urethritis. This is an error. Sometimes the patient feels better under a soothing or an astringent injection (p. 126). In neurotic subjects, thallin or nitrate of silver applied to the prostatic sinus by instillation (2 drops of a 5% solution), or touching the swollen verumontanum with a little fused

nitrate of silver upon a long probe through the urethroscope may be of service. An occasional steel sound or a cold-water sound adds tone to the urethral circulation, and massage of the prostate helps, perhaps, a little; but tonics, cod-liver oil, local cold-water douche, horseback exercise, a pure mind, and absolute sexual continence or matrimony of a proper kind (p. 112)—these things must be relied upon to effect a cure, and in the right-minded they will do so. The sexual pervert in this condition is all but hopeless.

If, as is often the case, prostatitis or spermato-cystitis complicates prostatorrhea—and they may well do so—the treatment of the complication greatly helps the prostatorrhea.

TREATMENT OF ACUTE SPERMATO-CYSTITIS

In treating acute spermato-cystitis it must be remembered that the malady is often so mild as to yield no symptoms, and to subside spontaneously. Doubtless in every case of gonorrheal epididymitis there is coincident acute vesiculitis of that side, but it gives no sign, and is only discovered by rectal exploration. When the symptoms do manifest themselves, however, the malady is treated like acute prostatitis, by rest, bodily and sexual, alkaline diluents, light diet, laxatives, anodynes, sitz baths (rarely by the rectal tube for acute cases), possibly even by perineal leeches. Opium suppositories, monobromid of camphor, antipyrin, and heavy doses of potassium bromid are employed for nocturnal priapism and pollution.

Rectal examination is to be avoided, and the vesicle must never be stripped for fear of producing one of three things: priapism with bloody emissions, acute urethro-cystitis, or epididymitis. The only object of rectal examination is to detect abscess of the vesicle early, and to incise it opportunely. Such abscess may be afforded a rectal opening, but strong advocacy of the perineal route has been made (Guelliot,[1] Collan [2]). There is no danger of ultimate fistula. Nature habitually opens the abscess into the rectum, and the surgeon may anticipate her choice with a tenotomy knife or a sharp-curved bistoury partly wound with adhesive plaster introduced flat upon the finger through the rectal sphincter. No anesthesia is required. A hot enema or a rectal douche twice daily perfects the cure if the incision has been ample.

If the abscess is not detected soon enough and bursts into the bladder, both that viscus and the rectum must receive repeated hot

[1] Presse méd., 1898, i, 193.
[2] Ueber Spermato-cystitis Gonorrhoica. Leipzig, 1894, S. 65.

irrigation—mildly disinfectant—until the abscess cavity has healed and the flow of pus ceased.

TREATMENT OF CHRONIC SPERMATO-CYSTITIS

This malady is so involved with other affections, prostatorrhea, prostatitis, sexual neurasthenia, and so often associated with a life of sexual riot of one sort or another, that it is difficult to portray or to differentiate, and it forms the richest possible field for the unscrupulous practitioner.

The cause for continuance of symptoms must be discovered and stopped or all effort will prove futile; masturbation and sexual strain, notably ungratified sexual desire, must be absolutely prohibited. Almost invariably one of these factors has been a co-operating cause of the symptoms, because we often find chronic seminal vesiculitis with practically no *symptoms of a neurotic or neurasthenic kind.* Constipation and straining at stool should be interdicted. Bicycle or even horseback-riding is inadvisable in severe cases.

Diet, exercise, and air must be studiously regulated and the mind properly occupied, for morbid introspection is fatal to the success of treatment. General massage, cold hip baths, cold douches, or sponging of loins, back, and genitals in the morning, a course of cold drip sheet, the cold-water psychrophore or the rectal tube, employing very hot and very cold water in alternating courses—all these have their places and their uses as adjuvants.

Sexual hygiene is most important, and matrimony in appropriate cases a positive specific—often alone effecting a cure.

Among medicines iron, cod-liver oil, hypophosphites, and strychnin are the standard tonics. If local irritability be marked, 30 centigrammes of monobromid of camphor or 12 of valerianate of zinc, or 30 of asafetida 3 times daily, may be comforting, or 0.5 milligramme of sulphate of atropin 3 times a day.

No benefit may be expected from ichthyol or iodoform suppositories, and instillations of the prostatic sinus are not reliable. The two most commendable methods are massage of the vesicles and rectal douching with very hot water with the Chetwood tube (p. 131). The latter expedient possesses two great advantages. In the first place, it may be used daily by the patient, to the saving of his pocket and the increase of his self-respect; and in the second place, it is often more efficient than massage, for I have observed a number of cures by its use after massage at most competent hands had failed. Inexpert massage is attended by constant danger of

lighting up epididymitis, a risk that does not seem to attach to the tube.

The vesicle is stripped by introducing the finger just as far as it can possibly be pushed above the upper corner of the prostate upon one side, and then the peanut-shaped, distended body of the vesicle, moderately palpated by the pulp of the finger, is slowly pressed upon by withdrawing the finger and making very moderate lateral movements. The instruments devised to strip the vesicles are more brutal than the finger and not to be recommended, although they may do the work more decently and more thoroughly. I constructed probably the first of these about thirty years ago, long before the modern furor for treating vesiculitis had been dreamed of. It consisted of a double rubber balloon introduced collapsed, then inflated and withdrawn. It did not long survive the injury it occasioned.

There is something very wonderful about the effect produced upon some minds (and upon some bodies, for that matter) by the introduction of a finger into the rectum. How else shall we explain the pretensions of the school of orificial surgery, never better exemplified than by that delightful and now classical story of the quack at Bath, England, who discovered that all the ills of the flesh are due to stricture of the rectum and can be cured by a daily introduction of the rectal bougie! The London physicians, finding that all their patients were leaving them in order to go to Bath to see the new celebrity, held a meeting, and elected the most serious-minded, stolid, and matter-of-fact gentleman of their number to set forth for the express purpose of studying and exposing the methods of the irregular practitioner who was threatening to rob them of all their patients.

The delegate departed, and in a week wrote back to the committee, praising Providence that had so willed it that he should have been selected for the mission, for, said he, "I have found the doctor to be a most honest and learned gentleman, and I have discovered that I myself have stricture of the rectum, and I am now daily having a bougie passed for its relief—to my great betterment!"

This pleasantry, of course, is not detailed to condemn the practice of vesicular massage, because there is most positive merit in it, but to put the young practitioner upon his guard. I have had a man come to my office and appeal to me almost tearfully to relieve the dreadful pain in his back by milking his vesicles. I tested him by simply introducing my finger through the sphincter, without touching his vesicles, and the pain disappeared at once. This man had been having his vesicles stripped for a year and liked it, but,

naturally, such treatment could not be expected to cure him—at least so I thought.

Yet there are cases in which the vesicle is manifestly distended and sensitive; the patient cannot sit squarely upon a cushioned seat for the discomfort it occasions; there is positive pain across the back low down, and perhaps also radiate neuralgia in the sciatic or anterior crural nerves; and disgorgement of the distended vesicle by pressure surely gives relief to all of these symptoms at once.

If vesicular massage be practised the intervals ought to be about five days. The douche may be tried first in all cases. If it succeeds, well and good; if not, massage may be tested; but sometimes both are ineffective.

Yet neither douche nor massage can be expected to effect a rapid cure. If the symptoms are moderately acute rather prompt relief may be looked for—perhaps in a month or six weeks. In chronic cases a longer period must be allowed for improvement to manifest itself, and it may take six months or a year to effect a cure.

While the success of the treatment of chronic spermato-cystitis, as of so many other maladies of these regions, often depends more upon a comprehension of the patient's nervous calibre and sexual hygienic irregularities than upon the technic of local treatment, correction of diatheses and of dietetics, with tonics—medical, moral, and hygienic—is of the utmost value.

Perivesicular Abscess.—Chronic abscess and infiltration of the perivesicular tissues occur now and again, causing retention of urine, impotence, local pains, etc.

Fuller [1] suggests that these abscesses be attacked by the Kraske sacral incision. I consider the perineal route preferable (p. 789). He reports 2 cases—1 cured, the other disappeared. This example has not been followed.

[1] J. of Cut. and Gen.-Urin. Dis., 1896, xiv, 330.

CHAPTER IX

EXTRA-GENITAL AND METASTATIC GONORRHEA

The gonorrheal maladies so far considered all affect the genital apparatus. Acute gonorrheal cystitis, confined as it is to the neck of the bladder, is in reality only a part of the picture of acute gonococcal posterior urethritis. But there are numerous other morbid conditions directly due to the specific germ, involving the urinary tract, the other mucous membranes, and many other structures of the body. Indeed, modern laboratorial research has achieved for gonorrhea the distinction of ranking as a general systemic malady, since the gonococcus has proved its ability to establish a habitat outside the urethra.

A mass of literature upon this subject is collated in the classical work of Marcel Sée.[1] It covers the subject entirely up to its date (1896). Since then there has been no stint of workers in the field, both in the clinic and the laboratory, and the extent of the *rôle* of the gonococcus is doubtless now fairly well understood. It is impossible to follow all these modern investigations minutely in a work of this character, but it is interesting to append Young's [2] list setting forth the chronological advance of our knowledge and the names attached to each new step.[3]

[1] Le gonocoque. Paris, 1896. [2] J. of Cut. and Gen.-Urin. Dis., 1900, xviii, 240.

[3] Neisser in 1879 demonstrated that the gonococcus is the cause of ophthalmia neonatorum.

Bumm in 1887 successfully cultivated the gonococcus.

Arthritis—Gonococcus demonstrated in Pure Culture. Lindemann, 1892.

Salpingitis and Circumscribed Pelvic Peritonitis. Wertheim, 1892.

Abscess, Subcutaneous. Lang and Paltauf, 1893.

Teno-synovitis. Tollemer and Macaigne, 1893.

Pleurisy. Mazza, 1894.

Perichondritis. Finger, Gohn, Schlagenhaufer, 1894.

Abscess, Intramuscular. Bujevid, 1895.

Acute Cystitis. Wertheim, 1895.

Endocarditis and Septicemia. Thayer and Blumer, 1895.

Adenitis—Glands of the Neck. Petit and Pichevin, 1896.

Chronic Cystitis, Pyonephrosis, Diffuse Peritonitis. Young, 1898.