CHAPTER VIII

THE TREATMENT OF URETHRAL INFLAMMATIONS AND THEIR IMMEDIATE COMPLICATIONS

THE METHODIC TREATMENT

The methodic treatment of urethral inflammation is the rational application of the general hygienic, external, and medicinal measures suitable to inflammatory conditions of the urethral membrane. Such measures apply equally to the management of all forms of urethral discharge, being based upon the quantity and quality of the discharge and the grade of the inflammatory action rather than upon the cause or the nature, specific or otherwise, of the flow.

The hygienic and dietetic part of the treatment is of the utmost importance. If disregarded, the best-directed efforts may miscarry. Many cases of simple urethritis require little else than hygienic and dietetic treatment, which may be epitomized as follows:

Cleanliness.—The parts should be washed as often as required, soap and warm water being as good as an antiseptic solution and more readily at hand. The discharge should be kept from smearing the underclothing by one of the following methods: When the foreskin is long a little absorbent cotton may be tucked into its orifice, and renewed after each urinary act. The glans penis is thrust through a slit in the centre of a small square of gauze until the slit lies snugly behind the corona glandis. Thus held in place the gauze is folded forward over the glans penis, covered by replacing the foreskin, and left puckered up and long enough to protrude in a bunch for a scant inch in front of the preputial orifice. An apron of old cotton or linen doubled is fastened to a string about the waist or pinned to a suspensory bandage, and the entire genitalia wrapped up in this, or a triangular diaper of gauze doubled may be made to envelop the penis and its folds pinned to a suspending band. Finally, one of the various penis suspensory bags furnished by the shops, preferably of cloth, may be employed, the bottom to be kept supplied with renewed portions of absorbent cotton; or a piece of toilet paper may be wrapped about the penis and twisted at the end—any device

to keep the discharge from defiling the person or the clothing, for this discharge in gonorrhea is most virulent (besides its nastiness), and any moisture exuding from the urethral meatus should be regarded with grave suspicion. Indeed, during the first interview each patient individually should be cautioned to make it a routine custom to wash the hands carefully after every handling of his organs, fearing inoculation of the eyes and that dreadful complication—gonorrheal conjunctivitis.

It is a proper precaution to urge the patient during an acute gonorrhea to wear a snug suspensory bandage as a preventive of epididymitis. This protects the testicles from injury and exposure, and assists in retaining dressings when required.

Diet.—The food should be bland and partaken in moderation in all acute conditions of urethral inflammation. All wines, liquors, champagne, beer, strong black coffee, acids, spices (including ginger-ale), condiments, sauces, rich and indigestible foods, are to be interdicted. Vegetables, milk and bread, fish, and a little white meat (rather than red) make the best diet—but all this is for the acuter stages only. There comes a time, after the malady grows chronic, when the diet must be made generous, when coffee is rather helpful than otherwise, and a small quantity of wine or whisky positively beneficial, with plenty of meat and good cheer.

I remember a striking lesson I once received in this line. A big, sturdy, free-living clubman appeared with a rousing gonorrhea. His customary tipple was two bottles of brandy a week. I put him at once upon a penitential diet. He did very well, and presently his acute symptoms subsided, and I struggled for weeks and weeks with his gleet—in vain, for he maintained his abstinence honestly. Finally he disappeared, and I bemoaned him as a failure at my hands. Some months later he turned up upon another matter, and I asked him what had become of that everlasting gleet. "Oh!" he said—searching to recall the facts—"yes, I got tired of treatment, so I went off on a spree the night after I last saw you and drank a whole bottle of brandy. The next morning my discharge had ceased, and I have been well ever since and continue my brandy as of old."

Rest.—Physical repose is desirable, sometimes essential, in acute cases with much chordee and a tendency to epididymitis or to bladder implication, but it may fail. I have seen a boy put to bed, fed on milk, alkaline drinks, and balsams, and his urethra not touched by any local treatment, and yet have the fiercest kind of an attack culminating in double suppurating epididymitis. And again I have seen a fat, middle-aged man with a sluggish but most pronounced chronic posterior urethritis get perfectly well so that all pus disap-

peared from the urine, by horseback exercise alone, after the failure of months of all sorts of internal treatment with local instillations and irrigations. No rule can govern this matter. It is a question of individual acumen and surgical judgment.

Sexual Hygiene.—During the acute stage again absolute continence is essential, and this should be extended at least two weeks after the cessation of all discharge, with the avoidance of anything liable to induce sexual excitement—association with women, racy books and pictures, erotic thoughts *et id genus omne*; but here again in the remote chronic stage—after repeated microscopical tests shall have demonstrated the absence of gonococci, even if there be shreds containing leukocytes—a return to sexual life may be the shortest and surest method of cure for the remaining mucoid sweating from the meatus which torments the patient and fills him with hypochondriacal fears. But to urge a patient with even the least suspicion of a discharge to marry is a grave responsibility—of the gravest, for it may involve contamination of an innocent victim (p. 64). Recognition of this fact is the safeguard from error.

Diluents.—Diluent drinks like the bland (non-mineral) natural waters, milk, buttermilk, plain hydrant water, or well water in abundance are desirable and effective in conditions of acute discharge, because they dilute the naturally acrid and irritating urine, and when the latter is made balsamic by medication they repeat the physiological retrojection the more often, with the double effect of mechanically cleansing the excoriated surface from its accumulated pus and medicating that surface with the balsamic solution.

But here again common sense must temper routine practice. In acute gonorrheal cystitis and in very acute posterior urethritis more harm may be done by the muscular straining attending the frequent repetition of the urinary act than is atoned for by any amount of dilution of the urine.

The drugs that may be effectively exploited to combat urethral inflammation belong to five orders:

I. Urinary antiseptics.
II. Alkalies.
III. Demulcents.
IV. Anodynes.
V. Balsamics and astringents.

I. Urinary Antiseptics

Urinary antiseptics, such as the ammonio-formaldehyd preparations (urotropin), methylene blue, salol, benzoic acid and the benzoates, boric acid and the borates, have little influence upon urethral inflammation. Theoretically they ought to be of paramount importance, since suppuration is a process always associated with, indeed caused by, germs of one sort or another; but practically these substances, so valuable in suppurative conditions of the urinary tract above the vesical neck (p. 372), are nearly useless below that point, whether because their bactericidal efficiency is slight, or because their sojourn in contact with the inflamed urethral wall is limited, or because the bacteria are shielded from the antiseptic action of the medicated urine by the tissues in which they lie, I shall not discuss, my belief being that each of these reasons has a share in accounting for their inefficiency. The value of urotropin and of methylene blue in gonorrhea has been vaunted. In my opinion it is slight, so slight that it does not deserve more than experimental consideration.

II. Alkalies

The virtue of alkalies in the treatment of urethral inflammations depends rather upon the condition of the urine than upon the grade of the inflammation. The urine, normally acid and often dense, is, *ipso facto*, harmful except in so far as it washes the urethra, and the alkali is negatively a very good thing, but good only when required to counteract acidity. In other words, there is no specific action whatsoever in the alkalies. They do not in the least control suppuration. If one had two burned hands, and placed one of them in vinegar and water and the other in a watery solution of bicarbonate of soda, he would doubtless prefer the sensations experienced in the hand immersed in the mild alkali, and so it is with the urethra.

Patients having normally bland, alkaline, dilute urine, and there are many such, stand in no need of alkalies, and, indeed, may occasionally be injured by them, by indigestion, or by having the urine rendered too alkaline—depositing perhaps phosphatic dust, itself a mechanical irritant, or by increasing the activity of the bladder contraction in acute gonorrheal cystitis.

When, however, the urine is brown, dense, overacid, *a fortiori* if it contains uric-acid crystals which, whirled along in the escaping torrent, act as a sand-blast upon the sensitive urethra, in such cases an alkali is balm indeed, and often alone quite capable of affording material comfort.

But there are certain conditions to its use even in these cases, a routine employment indicating carelessness or incompetence on the part of the surgeon. These conditions are easily formulated. When the urine is acid an alkali is indicated. If the urine be also dense a diuretic alkali is called for; if light (sp. gr. 1.015 or thereabouts),

the diuretic quality is not needed. If the urine be alkaline then no alkaline medicine is needed, for dilution, if required, can be produced by other means.

Bicarbonate of soda is the mildest of the alkalies. Its chief virtue is that it aids digestion, while the other alkalies impede digestion more or less. Dose, 0.50 to 1.00 gramme. It is often prescribed under the form of soda mints, two with, or better between, meals.

Sweet spirits of nitre (spts. etheris nitrosi) is notable for its anodyne rather than its alkaline properties. It is chiefly employed for the slight irritation of the bladder so common in women.

Potassium citrate, *Potassium acetate*, *Liquor potassæ*.—These three salts are employed more than any others as urinary alkalinizers. The citrate is the most efficient as an alkali, but irritates some stomachs, the liquor the most anodyne, the acetate the most diuretic. Therefore the liquor is most useful in acute cases, and the citrate in chronic cases. The acetate is a stronger diuretic than the citrate, but I have found it also more irritant to the stomach. The dose of each drug is about 0.5 gramme in a considerable quantity of water. The disagreeable taste of the liquor is well disguised by sirup of cinnamon.

Bromid of potash acts as an alkali and is sometimes efficient in controlling the smarting upon urination. Alkalies produce the greatest effect relative to the size of the dose, if administered towards the end of the second hour after eating.

III. Demulcents

Demulcents are much less used now than formerly, but occasionally are comforting when combined with an alkali. To this class belong flax-seed tea, gum water and elm-bark water, the various teas of fluid extracts made from buchu, pareira brava, uva ursi, triticum repens, and corn-silk.

IV. Anodynes

Anodynes are called for to moderate pain on urination, and for this bromid of potassium or the tincture or fluid extract of hyoscyamus generally suffices. A favourite old-fashioned prescription is:

℞ Liq. potassæ.....	5.00–25.00	grammes	ʒ ij–vj
Tr. hyoscyami.....	15.00–35.00	"	ʒ ss–j
Syr. cinnam.....q. s. ad	100.00	"	ʒ iij.

M.

Sig.—Teaspoonful in water two hours after each meal.

For intense *chordee* lupulin in doses of 2 to 4 grammes taken upon retiring is sometimes effective, or a similar dose of the bromid

of potassium. The coal-tar preparations are of decided value for this condition. Acetanilid, antipyrin, phenalgen, in 30 centigrammes to gramme doses on retiring—perhaps aided by codeia. In the intense dysuria of acute gonorrheal cystitis, codeia, McMunn's elixir, and morphin are indicated in doses large enough to obtain the desired effect—accompanied always by a laxative.

Hot water is of value in various ways. When the pain on urination is intense it may be somewhat moderated by immersing the penis in very hot water and urinating into it. Prolonged soaking of the penis, just before retiring, in water as hot as can be borne, will often prevent or moderate chordee during the night.

A *hot hip bath* is full of comfort for the patient with any form of acute prostatic, vesical, or seminal vesicular inflammation. Such a bath may be repeated every few hours. It should be short, not lasting more than five minutes. The temperature of the water to begin with should be near 104° F., and after the patient is in the bath more hot water should be added until the temperature of the bath is as high as the patient can tolerate.

Iced water is useful when the penis is erect and in chordee, but not when the penis is relaxed before retiring, as this rather encourages erection later in the night. In chordee the patient naturally urinates at once, if he can, and then by pouring iced water over his turgid and unruly member, or by placing it alongside a cold piece of metal, he strives to reduce it to subjection. To break a chordee is to invite stricture.

V. Balsamics and Astringents

Balsamics and astringents, last to be named, are first in efficacy for the management of urethral discharges by internal medicinal means. In the order of their usefulness they may, perhaps, be rated as follows: Oil of yellow sandal-wood, balsam of copaiba, cubeb, oil of wintergreen, eucalyptol, matico, pichi, spirits of turpentine, tincture of cantharides, tincture of the chlorid of iron—and finally tonics of all sorts, and particularly cod-liver oil for mild chronic discharges in broken-down subjects. The types among the balsams are sandal-wood oil and copaiba—the others are less useful.

These balsams are of great value in the treatment of every form of suppuration originating in the urethral membrane, but to be of service they must be digested comfortably. It is like giving cod-liver oil for pulmonary tuberculosis, a medicine which sometimes takes away what little appetite the poor patient has, and is itself vomited. Under such circumstances cod-liver oil would do more good if rubbed upon the boots. And so it is with balsams; if they

upset the stomach they do not benefit the urethral catarrh. If sandal-wood oil in small quantity gives a man so severe a pain in his back that he can neither exercise nor sleep, and if copaiba in moderate dose so upsets his stomach that he is constantly semi-nauseated, or if he easily gets copaibal erythema, he certainly cannot derive proper advantage from these drugs, and it is folly to push them. But, on the other hand, when the balsams agree they are exceedingly helpful, and their dose may be pushed with advantage up to the limit of satisfactory digestion.

Sandal-wood Oil.—The preparation made from yellow sandal-wood is probably better than that made from the red, but both have merit. The oil, however, is expensive, and often adulterated. Modern fastidiousness demands that it be prescribed at meal times in capsules, and the markets are flooded with these, soft and hard, containing 5 and 10 minims, and in all sorts of combinations with other balsams and with salol, with pepsin, etc. Generally, however, it is better, if a huntsman be after reasonably large game, to shoot with a rifle rather than with a shot-gun.[1]

The dose of sandal-wood oil to do any good should be at least 0.5 gramme (8 minims) 3 times a day, and it may be pushed to 2 grammes (30 minims) 4 times a day. Rarely, however, is so much required, and even the lowest dose sometimes upsets digestion or gives the distressing pain in the back, which calls for a halt and a diminution in dose or a change of drug. The warm urine is redolent of sandal-wood.

If a liquid be preferred to a capsule the alkali and balsam are easily combined.

℞ Potass. citrat.....	5.00–25.00	grammes	ʒ ij–vj
Ol. santal.....	15.00–25.00	"	ʒ iv–vj
Syr. acaciæ	50.00	"	℥ j
Aquæ menth. pip. q. s. ad	100.00	"	℥ iij.

M. Shake.

Sig.—Teaspoonful in water two hours after eating.

Copaiba may be prescribed instead of sandal-wood oil in this combination late rather than early in the disease, and a little fluid extract of hyoscyamus or deodorized tincture of opium if required.

[1] I cannot but recall here the graceful words of a charming lecturer upon dermatology. I heard them in Paris, in my student days of 1866. "Gentlemen, you all remember well that famous sirup of Monsieur ——, in which iodin, iron, arsenic, mercury, and potash give themselves a rendezvous in the same bottle, and seem to make the learned professor say: 'La nature, plus forte que moi, saura bien choisir celui qui lui conviendra! . . .'"

This dose is easier to take than the time-honoured Lafayette mixture—Heaven knows why that warrior allowed his name to become attached to such a compound!—and the citrate of potash seems to do better work than the nitre and the liquor potassæ of that mixture. Bicarbonate of soda may substitute the citrate of potash when a diuretic effect is not desired, and wintergreen or liquorice flavours be substituted for the mint.

Copaiba more than sandal-wood oil, however, demands the capsular form of administration. Its dose also varies from 0.5 to 2 grammes. Less than 0.5 gramme (8 minims) does no good, and that quantity often nauseates, sometimes occasions diarrhea.

Copaibal erythema consists in the appearance of closely aggregated, slightly elevated, red blotches scattered over the whole trunk. They itch and are hot and tingling, like urticaria—features distinguishing this eruption from roseola, with which the timid are prone to confound it. It is easily cured by a discontinuance of the drug, an alkaline laxative, a few warm baths containing some bicarbonate of soda (3 ounces to 60 gallons), dusting the body with powdered talcum, and applying twice a day—

℞ Acidi carbolici.....	5.00	grammes	ʒ j
Spts. rect.....	150.00	"	℥ v
Aquæ .....q. s. ad	250.00	"	℥ viij.

M.

Sig.—Lotion.

Or,

℞ Menthol	3.00	grammes	ʒ j
Spts. rect.....	50.00	"	℥ jss
Aquæ.....ad	100.00	"	℥ iij.

M.

Sig.—Lotion.

When copaibal erythema appears, the patient feels ill, has fever, etc., and the discharge diminishes greatly or ceases. But it returns as the eruption fades. The eruption does not mean that the drug must be given up entirely, but only that it must be considerably reduced in quantity.

The headache and giddiness, and the urticaria caused by copaiba need only be mentioned. They are due to indigestion.

Cubeb is a stimulant as well as a balsamic. It agrees with most stomachs, but in large dose sometimes irritates the neck of the bladder slightly. Hence it is more applicable to the declining than to the advancing stage of urethral inflammation. The powder is always spoken of, but rarely given in this country. The dose is

one or two teaspoonfuls in sweetened water. The fluid extract is better, in half-teaspoon- to teaspoonful doses hot, the oleoresin in capsules, perhaps best in the dose of 0.5 to 1 gramme (8 to 15 minims) (1 to 2 capsules).

Wintergreen oil, or its synthetic substitute the salicylate of methyl, in 0.75 gramme (10-minim) capsules, 1 or more at a dose, seems helpful in some cases of subacute or chronic posterior urethritis, particularly if the prostate be engorged, and especially in rheumatic subjects, and *eucalyptol* in 5-minim capsules, 1 or 2 at a dose, if there be much debility and headache, especially for chronic malarial cases. *Matico* seems a sort of a fancy, and is generally used in combination with something else, while *pichi*, at one time fashionable and seemingly astringent, appears to have been lost in the shuffle of late years. By ringing the changes upon these various drugs, all of which possess some degree of merit, the requirements of every case may be reached in any stage of urethral inflammation.

Towards the end of the attack, in the remote gleety stage, the *oil of turpentine* has a place as a stimulating balsamic in 5-minim capsules, 1 to 3 at a dose, and the tincture of *cantharides* for the same conditions in from 0.05 to 0.25 gramme (1- to 5-minim) doses. Too much cantharides is, of course, irritating.

Fluid extract of *kava-kava* in 0.5- to 2-gramme doses is suitable, and apparently sometimes helpful towards the end of a gleet.

The *tincture of the chlorid of iron* has a certain value for atonic cases, especially in very chronic mild posterior urethritis, in doses of from 0.5 to 1 gramme well diluted. Its effect upon the teeth and its constipating tendency must be remembered.

Tonics and *cod-liver oil* find their proper place along general lines of indication, with change of habitat, sea air, etc.

The balsamic remedies have been found ineffective when administered locally. They undergo a change in passing through the kidney. Most of them give an especial odour to the urine.

The excreted urine exercises a local action [1] upon the inflamed surface of the urethra, consequently the balsams are useless in female gonorrhea, unless the urethra or bladder be involved.

[1] As has been proved when large fistula in the floor of the urethra permitted the urine to be turned off, the part behind the opening getting well first, and the anterior urethra being subsequently cured by injection with the patient's own urine, freshly passed and full of modified copaiba. I do not know that this has been demonstrated except for copaiba; and yet, strangely enough, Steinschneider and Schaeffer (cited by Sée) found that the urine of patients who had taken copaiba or salicylate of soda did not show bactericidal qualities—while iodid of potassium possessed more merit in this respect—which only goes to prove that, for practical purposes, the conclusions of the bedside are sometimes wiser than those of the laboratory.

LOCAL TREATMENT

Choice of Treatment.—The hygienic and medicinal measures just detailed may suffice to conduct a case of urethral inflammation to a happy termination, and many excellent practitioners prefer to use only these means, electing rather to allow the patient to work through the slow course of his malady—six weeks and more—in what they believe to be security against complications (of prostate, seminal vesicles, epididymis) rather than take the responsibility of local treatment with its possible attendant risks.

That this judgment is in error is attested by the consensus of opinion of practically all the serious workers in this field, and to this opinion the lay public gives its consent for whatever it may be worth.

If complications never followed unless the urethra was handled locally an opinion could easily be rendered, but this is by no means true. On the contrary, cases not treated locally habitually run a fiercer course in my opinion than those judiciously handled by local measures. But in acute gonorrheal inflammation, if local measures are carelessly or intemperately administered they are worse than useless. Woe to the man who wishes to get well in a hurry by using very strong injections upon himself!

Without a shadow of a doubt local treatment is desirable, the main questions being what local treatment and when to begin.

Excellent and reliable authorities sometimes prefer to use no injections whatsoever, when the early acute inflammatory symptoms run high, reserving their trump card for the hour when the enemy shall show signs of weakening, and then endeavouring to speed the parting guest. Such a course is prudent and usually the best when a patient is forced to rely upon his own resources for topical treatment even under direction. I now allude to true specific gonorrhea, and not to simple urethritis, a malady frequently controlled from the start by a few well-directed injections given to the patient by himself. Not so a true gonorrhea. This enemy laughs at such paltry weapons, and will acquire by their use new strength rather than any discouragement.

When the surgeon is consulted in a case of urethral discharge let him first make his diagnosis. If the case be one of simple urethritis he may order some gentle astringent lotion as an injection to be used by the patient (p. 124). If the discharge be due to recent gonorrheal infection the patient should use no astringent injection, but may use a bactericidal lotion, but only as an adjuvant to the sur-