insufficient vascular supply for the securing of certain takes. The freshening of the surface by gentle rubbing with a gauze pad, as suggested by Lauenstein, I have tried in several cases; where the granulations are comparatively tender this method is quite effective, but if the granulations are firm I always resort to the use of the nail brush. Hot saline solution and pressure quickly control the slight hemorrhage. A sharp aseptic metal-handled razor should be used. The skin of the part from which the grafts are to be taken is made tense by grasping with the hand. The grafts are sliced off by sawing movements of the razor. I try to have them half the thickness of the skin, half an inch wide and one and one-half inches long, that size being convenient to handle and satisfactory for most cases. As soon as a graft is severed it is turned over the end of the left index finger, skin side next to the finger, carried directly to the denuded site and pressed down on the surface with the finger, a small probe serves to smooth and straighten it out in the position in which it is desired to remain. This process is repeated until the bare area is covered. By the direct transference of the skin strips you will be able to cut them more nearly in proper size, shape and number and the proportion of takes will be larger. I have the surface from which the grafts are taken, dry and transfer them without the intervention of any saline or other solution, which, I believe, only serves the purpose of rendering a delicate piece of work more difficult.

I cover the grafted site with thin dental rubber dam, criss-crossed for drainage if the area is large. I place a small gauze pad over this, securely anchor it on all sides with narrow strips of zinc oxid adhesive plaster to prevent the displacement of the grafts and apply externally a cotton, gauze and bandage dressing. Frequently it will be well to apply a splint or to encase the part in plaster-of-Paris to secure immobilization. In case the grafted locality is on a limb I have it placed on a level with the rest of the body or slightly elevated. A slight degree of pressure will keep the grafts in contact with the part, prevent serum from collecting between the graft and the wound and prevent bleeding. Too much pressure will promptly kill the grafts.

At one time we were taught to keep our skin graft dressings wet with physiologic saline solution. Being valuable for some things, it was supposed to be useful for everything. I discontinued it as being exceedingly troublesome and totally devoid of value for this purpose and began using sterile vaselin and petrolatum as lubricants to prevent the dressings from becoming adherent. Later I adopted the plain dry dressing previously described and have used it for some time without having cause for regret. It possesses the advantages of simplicity and neatness. It lessens the trouble of after care. If the dressing should become adherent it can be easily loosened by soaking it in warm water and removed without disturbing the new epithelium. Ordinarily I leave the first dressing on for a week, and after that the wound often requires but little care. Pus infection in these cases is almost fatal to success and must be guarded against.

I have practiced my method in twenty-three cases without a single complete failure. I have used it principally in the repair of defects caused by burns and lacerated wounds.

In conclusion, I desire to emphasize the advantages of the direct transference of grafts; the substitution of the nail brush for the curette, and the superiority of the dry dressing moored in place by adhesive strips.

THE RATIONAL TREATMENT OF URETHRITIS.*

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DETROIT.

The rational treatment of this affection depends on the etiologic factors that are responsible for its causation. The non-specific forms demand an entirely different regimen than the specific variety. We must endeavor in all cases to eliminate the cause so far as possible. To dwell at length on the treatment of the various types of the malady under discussion would require more time and space than has been allotted to me. Suffice to state, however, that urethritis dependent on certain dyscrasias and diatheses must receive their adequate consideration before we can expect favorable results. To treat any given case of urethritis merely with a hand injection and the internal exhibition of some nondescript "urinary antiseptic," without having recourse to physical, urinary and microscopic examination, if necessary, is just as absurd as to treat the symptoms of a febrile disorder, without taking cognizance of the specific elements which may have precipitated the fever.

Of greater interest to the physician, however, is the treatment of the *gonococcic type* of the disease. Concerning the so-called "aborative plan" the author has nothing good to say. It is an inappropriate procedure and should be condemned by every scientific physician. To destroy the gonococci would necessitate the use of powerful germicidal agents, which undoubtedly injure the intact urethral mucosa and hence are conducive not only to increased suffering, but also to appreciable solutions of continuity therein, damage the canal permanently and eventuate in stricture formation. Its irrationality is apparent at a glance and need not be dilated on. The conservative school of the profession advocates the "expectant plan" of treatment, contending that a gonococcic urethritis is a self-limited affection, uninfluenced by interference of any kind. This is a very reprehensible conception of the real pathology of the malady, is far from scientific and may at times lead to unfavorable sequelae and not infrequently prolong the duration of the disease indefinitely. This plan is of doubtful propriety and deserves to be ignored as an irrational mode of treatment. Not less reprehensible and still more ridiculous are the remedies in vogue at present, obsolete and obscure methods that have come down to us as a heritage of barbarism or witchcraft from the latter part of the medieval past. I can not refrain from disparaging their employment and shall prove the inefficiency of their highly vaulted therapeutic activity. Their name is legion and to enumerate them all would require a special chapter to be written in the histories of medicine now extant. Prominently among them figure the "alkaline diuretics." The theory is pretty much prevalent, that alkalies, when ingested are absorbed into the circulation and neutralize the normal urine by rendering it alkaline, thus alleviating pain and ardor urinæ, two harrassing symptoms of the acute stage of this disease, simultaneously acting as mild urinary antiseptics. This theory contains much that is futile. When alkalies are absorbed, their identity is completely destroyed as far as the acid radicle is concerned; they are ultimately converted into normal chlorids or salines and not carbon-

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ates, which are known to possess diuretic properties; it is only by the latter virtue that they exercise a beneficial effect on the inflamed urethra, not, however, primarily as alkalies, but as diluents and diuretics. This assertion may not conform to established orthodox doctrines or theories pertaining to this particular phase of the subject, and I, therefore, anticipate being relentlessly criticised for it.

The therapeutic value of boric acid and salol, either alone or in combination which are administered thoughtlessly as a routine measure, with the expectation of disinfecting the urethral tract, is likewise doubtful. The various balsamics, as copaiba, santal oil, gurjun and the oleoresin of cubeb, must be mentioned in order to be condemned not alone as nauseating and repugnant substances, but utterly devoid of benefit in this disease. It is unreasonable to believe that a drug ingested and acted on by the different digestive ferments and fluids found in the gastrointestinal canal, after being absorbed in a modified and chemically altered form, and after being oxidized and in turn converted into simpler products, should act as efficaciously on the urinary passages, as *in vitro* in the chemical and bacteriologic laboratories. The presumably beneficial effects of those remedies as witnessed in practice, are not due to their inherent specific properties, but rather to the intake of large draughts of water proverbially following these antiblemnorrhages, which act not merely as a diuretic, but also as a detergent and diluent, thus allaying painful urination, mitigating as the urinary tenesmus and indirectly acting as a mild antiseptic by virtue of the saline constituents it usually contains.

TREATMENT OF ACUTE STAGE.

The most rational method of treatment of the acute stage of gonococcic urethritis is irrigation, as first introduced by Janet, of France, and extensively used and elaborated in this country by Dr. F. Valentine, of New York. I have, however, utilized a procedure, which for lack of an adequate terminology I have designated the modified Valentine's treatment, and which I will attempt to outline in the subjoined paragraphs. With this method the average duration of an acute urethritis should not exceed three weeks, provided the patient presents himself for treatment within the first three or four days after the entrance of the acute manifestations and his urethra has not been impaired by the previous existence of the same trouble, i. e., provided the patient has contracted this affection for the first time. Recurrent attacks of this disease render it less amenable to this form of treatment and may prove very intractable.

The patient is told to drink plenty of water, and if he be fastidious, he may partake of some of the so-called mineral waters with which the market is teeming, or he may use some of the mildly acidulous beverages, which are abundantly dispensed in confectionaries. All alcoholic and malt beverages must be interdicted, as well as tea and coffee. Condiments of any sort, highly seasoned dishes and nitrogenous foods must be temporarily avoided. Soups are too stimulating and should be taken of sparingly. The anterior urethra is flushed with a normal saline solution by means of the Valentine douche or a similarly devised apparatus with a good valve attachment to regulate the flow. Not more than three pounds pressure should be allowed, or what is the same, the apparatus should not be elevated higher than six feet. A soft rubber catheter encircles loosely the root of the penis, or what is preferable, the fingers of the left hand of the operator gently press the penis at its root, while the right hand manipulates the valve. The latter

should be of such a construction so as effectively to regulate the current, which should be continuous and slow. The slight constriction of the root of the penis prevents the fluid from passing the corresponding portion of the urethra and being propelled into the deeper portions of the canal, a very undesirable feature which should be zealously guarded against. The infectious agent during the acute stage is confined to the first two or three inches of the urethra. By allowing a steady stream of normal saline solution to come in contact with the mucosa for about four or five minutes, it not only frees it from detritus and quantities of accumulated pus, but greater resistance is imparted to the cell as well, preventing the extension of the process and at the same time acting as a mild disinfectant. Thus affected, the meatus is dried and 20 minims of a solution of adrenalin (1:1000) is instilled through an ordinary bulb eye-dropper into the canal; the meatus is then compressed and the solution kept there for at least five minutes, after which it is permitted to escape. The suprarenal principle constricts the superficial capillaries and thus removes a prolific source of supply of the pabulum necessary for the multiplication and maintenance of the gonococci, which readily succumb for want of nourishment. Four results are thus achieved with the modified Valentine's treatment, viz.:

1. The removal from the urethra of muco-pus, epithelial debris, etc.
2. Astringent action; constriction of the peripheral vessels and the shutting off of a nutritive supply to the infecting agent.
3. By so doing it acts indirectly as a disinfectant to the urethra.
4. The duration of the affection is decidedly curtailed without endangering the integrity of the urethra.

The effects of the above procedure are very satisfactory, as the discharge is manifestly lessened after a few irrigations, the patient expressing relief from all annoying symptoms. The saline irrigations are continued daily, or what is still better, twice a day, if possible, for ten days, after which period potassium permanganate is substituted in ascending strength, beginning with 1:10,000 and increasing to 1:1,000 by the end of the third week. It will then be noticed that the discharge has come to a standstill and the urethra has been restored to the normal. If there is still a slight serous secretion at times evident at the meatus, we may resort to a prescription composed of zinc sulphate, adrenalin (1:1,000) and colorless fluid extract of hydrastis in distilled water, which, in a short time, will check it completely. Three weeks suffice in the majority of instances to effect a cure, while in favorable cases the disease is brought to an end in ten to fourteen days. This time factor alone bespeaks the advantage of the above treatment as compared with that practiced formerly in a loose, haphazard and empirical manner, when the prognosis as to the time was considered to be from six to eight weeks. This method then has the advantage over the older forms of therapy, that it shortens the duration of the affection, as evidenced by a number of cases on my record book. Specific or gonococcic urethritis under the aforementioned regimen is, therefore, a limitable and abortive disease, and the regimen does not tend to undermine the integrity of the urethral canal, as is commonly the rule with the caustic remedies in vogue during the last two decades, and still used by some under a mistaken conception of the pathology of this disease.

TREATMENT OF THE CHRONIC FORM.

The treatment of the chronic form is more difficult, tedious and complicated than the acute variety, and requires perseverance and patience on part of both physician and patient. Various solutions for injection have been advised, among them the vegetable compounds of silver, alone or in combination with ichthyol and suprarenal principle, either as a hand injection, or, what is still better, applied by the physician himself. We should make it an axiom not to entrust to our patients any mechanical or instrumental method, be it ever so simple. An injection fluid which has found favor with me is a solution of protargol (5 per cent.) together with adrenalin chlorid and Magendie's solution of morphin, if there is tenderness present, with or without hydrastis (the latter in the form of the colorless fluid extract). This is injected either anteriorly, or in case the process has travelled beyond the triangular ligament, which it does in nearly 75 per cent. of cases, through an Ultzman instillator into the posterior urethra. Silver nitrate, which has been extensively used hitherto, has been discarded for the aluminates or nucleates of the same metal, preferably argyrol or protargol. There are cases, however, in which the nitrate acts more favorably than the before-mentioned compounds and is accordingly used by me in preference to them in selected cases. Irrigations with strong solutions of potassium permanganate are likewise useful, either as a recurrent irrigation by the Valentine apparatus, or as a vesicourethral irrigation through a catheter, allowing it to escape by the natural route. Zinc sulphate has also been given a trial and found to be efficacious in those cases where the urethra is the seat of a catarrhal process and where infectious organisms can not be demonstrated microscopically. Ichthyol and belladonna in conjunction have been employed as a retrojection in the chronic form of urethritis. The insertion of sounds for their stimulating effect on the mucosa offers a therapeutic measure of great value, but it is too laxly used by many without knowledge of the indications prompting their employment. As a routine procedure it is not to be advised in all cases. That its intelligent use is followed by marked improvement can not be denied, but as used by some in the unsettled manner already intimated, it must be discouraged. The indications for its use are as follows:

1. In the incipient and formative stages of stricture.
2. In involvement of the posterior urethra without implication of its adnexa.
3. As a powerful stimulant to the urethra in catarrhal conditions affecting its anterior segment, where no gonococci are demonstrable.

The cold sound is the best. It must, however, be thoroughly sterilized with boiling water before insertion and well lubricated to facilitate its passage. The best and most expeditious method of sterilization is to dip the sound in alcohol and immediately ignite it, waiting until it is entirely cool. To be effective the sound must be left *in situ* for at least 10, if not 15, minutes. Various ointments containing minute quantities of ichthyol, silver nitrate and balsam of peru, severally, or in combination, furnish good lubricants, fulfilling a twofold purpose, viz., as an emollient and slightly antiseptic and astringent. Other emollients may be tried if deemed advisable. The introduction of the cupped sound, whereon some ointment of silver nitrate is deposited, is an efficient method in prostatic urethritis of long standing. Our intention is not solely to disinfect the morbid area, but also to stimulate it, e. g., to

cause a substitutive inflammation, as well as to dilate the canal. In a number of instances this purpose is readily reached. An acute posterior urethritis, or an exacerbation of the chronic form of greater or less severity is produced. The packing method, recently advanced, must be mentioned in order to advise emphatically against it. Cataphoresis is of doubtful utility, but may be tried. The beneficial results obtained by it are more pronounced in stricture. Massage or centripetal effleurage of the prostate or seminal vesicles per rectum with simultaneous counter pressure by means of a sound in the prostatic portion of the urethra, is a valuable means, but if no improvement be noticed after one week, it should be abandoned as useless.

URETHROSCOPIC TREATMENT.

The most thorough treatment is that afforded by the urethroscope, which reveals not only the actual seat of the trouble, but aids us in the direct application of medicinal agents to the diseased areas. The instrument serves a double purpose: (a) as a means of diagnosis and (b) as a therapeutic auxiliary.

Of course, we must first determine whether the tube can be passed, i. e., whether any bar obstructs its introduction in the form of strictures, polypi, diverticula and other organic obstacles. This ascertained, the posterior urethroscope is passed. The battery is turned on and the field viewed through the fenestrated opening. A great deal of practice is required to differentiate normal from pathologic conditions of the urethra. The possession of a urethroscope means little, to interpret its findings correctly means half of the success gained. It is impossible for me to enter into an exhaustive description of the different states of the urethra, both normal and abnormal, as seen through the fenestra. Long practice and proper recognition of the urethroscopic field are requisite to the correct interpretation of the picture seen. Self-deception and uncertainty may create havoc and thus frustrate our aim. Treatment by the urethroscope is the most rational method of procedure, as applications of divers nature may be made directly to the diseased parts; all ambiguity of treatment and ignorance of the actual existing conditions are thereby thoroughly eliminated. The ordinary slender wooden applicator serves well in urethroscopic work.

The value of internal treatment in chronic gonococcal urethritis is questionable. I have no faith in its efficacy, save for the administration of some urinary sedative after instrumentation, as hyoscyamus, belladonna or urotropin. We can readily dispense with these even if we have our sounds and instruments unscrupulously clean and perfectly sterilized, well lubricated and gently and slowly introduced. No force, except that of a gentle sliding movement, must be used. In patulous canals the sound finds its own way, without much effort on our part.

Treatment also largely depends upon the exact seat of the lesion, which must, in every case, be first determined. The urine must be examined by the three-glass test, to ascertain the probable location of the morbid process; the sound will detect strictures and diverticula, which are by no means so rare as some authorities would suppose. If a stricture is present, its exact side must be made known by the olivary bougie or the bougie a boule. Rectal examination is not merely advisable in some cases, but imperative in nearly all cases of chronic urethritis that come under the physician's observation. Any anomalies of the prostate or seminal vesicles are readily perceived by the palpating finger. Inflammatory states of

these structures, not infrequently give rise to urethrorrhea, which is often mistaken for gleet and unsuccessfully treated for this vague affection. A search must also be instituted for the possible presence of diseased states of the Cowper's glands, as they are equally apt to cause an obstinate urethrorrhea. There is a form of the latter condition that must not be omitted, entitled lacunar urethrorrhea, on account of its being located in the first inch of the urethra, the lacuna magna on the roof of the fossa navicularis, where instruments are not rarely engaged. Again, within the first two inches of the urethra the follicles at its base are more prominent than at other portions of the canal. Folliculitis of the urethral mucosa in its course may induce a muco-purulent discharge. Its exact location must first be discovered prior to the adoption of treatment. A tight meatus is frequently a contributing factor, which must not be overlooked during a urethral examination; the same holds good of a tight prepuce. In the former a meatotomy is indicated before we are enabled to resort to direct medical applications or mechanical interference; in the latter we must have recourse to circumcision. Affections of the bladder, the ureters and pelvis of the kidney or of the kidney itself must attract our attention as possible causes in all ultrachronic cases, where no appreciable cause can be elicited in the urethra and its appendages. Cystoscopy, and if necessary, ureteral catheterization should be performed before definitely arriving at a diagnosis. The possibility of tuberculosis should never be lost sight of. Over-treatment is held to be a potent source for the continuance of a urethral discharge, which ultimately disappears on the discontinuance of injections and instrumentation. Constitutional peculiarities of the individual must also be elicited before beginning treatment, as we are apt to meet with cases that do well on a tonic course of medicine with very little or no topical treatment. In these patients there is depraved health playing an important rôle; either malnutrition, digestive derangements or anemia and other debilitating states may be responsible for the perpetuation of the catarrhal discharge. That these anomalies of the general health must be corrected, goes without saying.

In protracted and persistent cases of posterior urethritis, especially when there is a concomitant prostatic involvement, our last and only resource lies in prostatic drainage, by means of a perineal section. This measure has of late been warmly recommended by some surgeons and the results obtained so far are very promising.

CONCLUSION.

In conclusion, I desire to remonstrate against the vague, unscrupulous and unscientific way of treatment adopted by some practitioners. The routine method displayed must be objected to by everyone who is cognizant of the gravity of gonococcic urethritis. It must not be slighted, for it is a formidable disease and frequently becomes not only a menace to the individual afflicted with it, but also a source of danger to those who are sexually brought in contact with him, who suffer innocently and whose life may be jeopardized, which is, indeed, very deplorable. It may become constitutional and attack the serous surfaces of the body, damage the delicate mechanism of the renal structure and lead to serious after-effects, immediate or remote. The treatment undertaken by the physician must be in conformity with the most modern principles governing it. The author also wishes austere to censure and rebuke that

faction of practitioners which holds itself aloof and is "too good to treat clap," as they deign to express it. Medicine, fortunately, recognizes no aristocracy; it knows of no elite, creed or caste. The only patricians are those, who by ardent endeavor and indefatigable labor, have helped to assuage the pains and heal the ills of suffering humanity, irrespective of whether the disease has been acquired in a moral or immoral sphere.

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LOCAL AND REGIONAL ANESTHESIA IN RECTAL SURGERY.

A SYNOPSIS OF SEVENTY OPERATIONS.*

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One of the most noteworthy advances in the surgery of the rectum during the past decade consists in the development and perfection of the technic which renders it possible to perform the majority of the operations on this organ under local anesthesia. This possibility will be questioned by some, perhaps disputed by others; but theoretical objections are not entitled to weight in the face of facts to the contrary. During the past year and a half I have called attention to this subject on a number of occasions. As my experience with the method has enlarged, I have become more deeply impressed with its value, and in the light of this experience I wish again to bespeak for it the consideration which its many advantages merit.

I have heard other operators, a very few, however, express different sentiments, but so far as my experience qualifies me to speak, general anesthesia remains the bugbear of modern surgery. Refinements in methods of administration and modification of the agents employed have done much to lessen its dangers and discomforts, but little to diminish the popular dread with which it is regarded. I would not exaggerate the popular dread alluded to, nor, on the other hand, do I think it right to belittle it. In past years I have known numbers of patients refuse operation entirely because of their fear of chloroform and ether, while, in pleasing contrast, I have more recently had the satisfaction of operating in at least a dozen instances for patients who eagerly sought relief as soon as they learned that general anesthesia might be avoided.

That adequate means of local anesthesia is to-day one of the most conspicuous needs of surgery, is evidenced by the eager avidity with which every announcement of a new method or measure is received. Cocain, eucain, stovain and the various other chemicals of that type, ethyl chlorid, scopolamin-morphin, spinal analgesia and even hypnotic suggestion, each met with enthusiastic welcome, only to be followed by disappointment as its limitations became apparent.

While surgery in general has long felt, and still feels, this need, rectal surgery has suffered especially, and from the writer's point of view, peculiarly, by reason of it. This statement is justified by several considerations. Though abundantly innervated throughout, the terminal two inches of the intestinal tract is practically the only portion supplied with sensory nerve fibers, and rather remarkable to say, this same two inches is more frequently the seat of disease than the whole twenty odd feet above it, or indeed, than any corresponding area of the entire body. But important as these diseases are,

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