purpose of injecting (the patient having first passed his water), it is an easy matter to carry its point within half an inch of the vesical neck without entering the bladder, when the fluid may be thrown in as the instrument is slowly withdrawn. If the instrument be sufficiently large to moderately distend the canal, none of the injection will escape from the meatus so long as the eye is in the prostatic or membranous portion of the urethra, since the contraction of the same muscle which prevents the entrance of fluid from without, also prevents its exit from within, and obliges it to flow backwards towards the bladder; hence we may, if we choose, limit the application of the injected fluid to the deeper portions of the canal exclusively, and the pain excited will be found to be less than when a solution of the same strength is thrown into the external portion, since the urethra, like other mucous passages, is most sensitive near its outlet. The chief disagreeable sensation following an injection thus confined to the portion of the urethra lying between the compressor urethræ muscle and the neck of the bladder, is an urgent desire to pass water, which, however, should be resisted as long as possible, that the fluid may have time to act upon the urethral walls before it is washed away or neutralized by the urine. During the succeeding twenty-four hours, micturition is somewhat more frequent than usual, but is not particularly painful; and the discharge is often slightly increased for a day or two.

The efficacy and safety of these injections in affections of the deeper-seated portions of the urethra are attested by MM. Diday[1] and Bonnet, of Lyons, Mr. Langston Parker,[2] of Birmingham, and my own experience. The same formulæ may be employed that have been recommended for injections by the more common method, and the application may be repeated once or twice a week.

Blisters.—Blisters were long ago recommended for the cure of obstinate cases of gleet, but had almost fallen into disuse when they were revived by Mr. Milton in his work on the treatment of gonorrhœa. This author speaks of them in the following terms: "I have seen two blisters, with a mild injection or two, at once cure a clap which had defied the most energetic treatment; and *as I never found a case which resisted blistering and injections together, that was not complicated with stricture or affection of the testicle, I am slowly arriving at the conviction that every case of clap or gleet, however obstinate, may, if uncomplicated, be cured by blistering, singly or combined.*"[3] It is to be feared, however, that this remedy has proved less successful in the hands of other surgeons than in Mr. Milton's. Recent writers

[1] Des injections circonscrites à la partie profonde de l'urèthre, de leur mode d'exécution, et de leur efficacité curative: Annuare de la syphilis, année 1858, p. 61. DIDAY'S method of employing deep urethral injections has been followed in the above description.

[2] Syphilitic Diseases, p. 82. MR. PARKER injects the fluid into the bladder, lets it remain for a few minutes, and desires the patient to force it out. This method is not so good as the one above recommended.

[3] MILTON on Gonorrhœa. The italics are in the original.

who have spoken favorably of it appear to have done so chiefly on Mr. Milton's authority; others, as Mr. Langston Parker, have given their testimony decidedly against it, and, in my own practice, it has not been attended with such success as to lead me to prefer it to other and less disagreeable modes of treatment. Still, it may be worthy of a trial in obstinate cases which have resisted the use of bougies and injections.

The manner of applying blisters to this region is of considerable importance. The hair should be shortened around the root of the penis, and a piece of paper be wrapped around the organ, and cut in such a manner as to form a pattern of its surface from the pubis to within half an inch of its extremity. The blister, corresponding in shape and size to the pattern, should be applied to the penis, and tied or fastened in its place, that it may not slip, and, coming in contact with the scrotum, produce a troublesome sore. It should not be retained longer than two hours, during which the patient must remain quiet. The morning is the best time for its application, since, if applied at night, it is likely to prevent sleep. On removing it the surface is found to be reddened, but not vesicated, unless, perhaps, at a few points, and the penis should now be covered with a rag spread with simple cerate, and be protected from friction by an external layer of cotton wadding.

On examining the parts, after a few hours, it will be found that numerous bullæ have formed on the surface, which at first appeared to be only reddened. These may be pricked, and the serum which they contain evacuated, but the epidermis should be carefully preserved. I have sometimes found the extremity of the prepuce beyond the site of the blister puffed out, with an effusion into its cellular tissue, which may be left to take care of itself, or, if excessive, be evacuated by a few punctures with a lancet.

Cantharidal collodion is a more convenient application than the unguentum lyttæ, but its effect cannot be limited like that of the latter, which should, therefore, be preferred. When applied for a few hours only, I can confirm Mr. Milton's statement that blisters do not excite severe pain, nor produce a troublesome sore. The first effect of their application is to increase the urethral discharge, which can only be expected to be benefited in the course of five or six days. The blister may be repeated at the end of a week if any discharge still remain. The perinæum may be blistered in a similar manner, but this will require the patient to be kept in bed until the vesicated surface has healed.

Separation of the Affected Surfaces.—Contact of the diseased surfaces doubtless assists in keeping up the discharge in gleet, as it is well known to do in balanitis. Hence it has been proposed, by means of a probe and a gum-elastic bougie open at the extremity, to introduce a strip of lint, either dry or soaked in some astringent fluid, within the urethra, and thus maintain its walls apart, renewing the application after each passage of the urine. This method, in which

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I have had no experience, has been successful in some instances, but is very troublesome and inconvenient, and would appear to be attended with danger of the lint slipping entirely into the urethra and entering the bladder. Civiale mentions a case in which this accident occurred, but does not give the ultimate result.[1] Mr. Milton[2] states that it has happened to him in several instances, and that the lint has always found its way out, but the danger of its retention is too great to be incurred. Separation of the affected surfaces is partially effected by certain forms of injection, as those containing bismuth, calamine, and other insoluble ingredients.

Finally, in obstinate cases of gleet, in which the discharge appears to come from the anterior portion of the urethra, laying open the lacuna magna, as recommended by Dr. Phillips, is worthy of a trial.[3]

[1] Maladies des organes genito-urinaires, vol. i., p. 444.
[2] On Gonorrhœa, p. 31. [3] See page 82.

CHAPTER III.

BALANITIS.

If the prepuce be retracted, a mucous surface of considerable extent is exposed, a portion of which covers the glans penis, and the remainder consists of the internal reflection of the prepuce. This surface may be the seat of inflammation, similar to that which has been described as affecting the urethra. If the disease be confined, as it sometimes is, to the membrane covering the glans, it should, strictly speaking, be called balanitis; if to the internal surface of the prepuce, posthitis, and if it involve both, balano-posthitis; all these varieties, however, for the sake of convenience, are commonly included under the one name, balanitis. Gonorrhœa spuria, balano-preputial gonorrhœa, and external blennorrhagia are other terms by which it is sometimes known.

Causes.—Men in whom the prepuce is long, or who are affected with congenital phimosis, are peculiarly exposed to balanitis, since the mucous membrane covering the glans and lining the prepuce is maintained in so sensitive a condition, from its want of exposure to the air and friction, that inflammation is readily set up by the least cause of irritation. Such a cause is at hand in the natural secretion which exudes from the very numerous sebaceous follicles that exist on the internal surface of the prepuce and the furrow at the base of the glans. If, from inattention to, or the impossibility of cleanliness, as in cases of phimosis, this cheesy secretion be not frequently removed, it becomes decomposed, and is changed into an ammoniacal, foul-smelling, emulsion-like fluid, which acts strongly as an irritant upon the delicate mucous membrane with which it comes in contact. When phimosis is present it will readily be understood how this fluid, coming from a small preputial orifice, may be mistaken for urethral gonorrhœa. I once had a patient come to me from the western coast of South America, simply to consult me for a supposed clap, for which he had been taking copaiba and using urethral injections for many months. A careful examination showed that the discharge came only from the balano-preputial fold in a penis affected with congenital phimosis, and circumcision speedily relieved him of his trouble. The diagnosis in such cases is readily made, by exposing and wiping the meatus, and then noting whether upon pressure, the matter comes from the urethra or from beneath the foreskin. Moreover, the pain in micturition, in cases of urethritis, extends along the course of the canal, while in balanitis it is confined to the excoriated surfaces of the extremity of the penis.

It will be evident that the stagnation and decomposition of any

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