CHAPTER XV.

INFLAMMATION OF THE BLADDER.

CYSTITIS is another complication of gonorrhœa, occurring as a consequence of the extension of the inflammation along the continuous mucous surface common to the urethra and bladder. It has also been attributed in rare instances to the gonorrhœal discharge finding its way, or being forced, into the bladder, and there lighting up inflammation similar to that affecting the urethral walls. A case of this kind is reported in the *Arch. gén. de méd.*, Paris, tome xiii., p. 454, 1829, in which cystitis suddenly supervened after using a simple emollient injection. All those causes which aggravate the urethritis may concur in exciting cystitis, among which may be mentioned sexual intercourse, indulgence in alcoholic stimulants, including malt liquors, fatigue, and the use of highly irritant injections. Persons who have suffered from hæmorrhoids or hæmorrhages from the rectum are especially exposed to it. Cystitis never occurs at the commencement of an attack of gonorrhœa, but usually after the third week, or at a much later period, when the disease has invaded the deeper portions of the urethra.

Gonorrhœal cystitis may be said to be confined to the neck of the bladder. Instances of the whole internal surface being involved are denied by Fournier, although admitted as of rare occurrence by Zeissl and others.

The first symptom that attracts the attention of patients is a frequent call to micturate. This may occur every hour or so, or even every five or ten minutes. The call, too, is imperative, and, if unattended to at once, the urine will be passed in bed or within the pantaloons. At the same time there is a feeling of uneasiness, not amounting to actual pain, in the perinæum, and this is apparent chiefly at the commencement and at the close of micturition. This may be accompanied by a tickling or itching sensation at the head of the penis. The first portion of the urine that appears on urinating is often clear, but the last few drops that escape are mixed with pus and more or less blood, or a few drops of pure blood may alone appear. This appearance of blood at the close of the act is a valuable diagnostic sign of inflammation of the neck of the bladder.

Another valuable diagnostic sign, experienced at the same moment —the close of micturition—is *vesical tenesmus*, often of the most painful and acute character, and which is probably due to spasmodic contraction of the vesical neck. At this time, in severe cases, there is a feeling of weight in the perinæum, which the patient endeavors

to relieve by pressure at that point, and also by pinching the extremity of the penis. He feels as if there were still a little urine left, and with great suffering manages to force out a few drops of muco-pus or blood, which scald the urethra in their passage. In some cases, the calls to urinate are so frequent as to amount to incontinence, and the patient passes a few drops every minute or two. As ordinarily met with in practice, however, cystitis of the neck is much milder in its character, and amounts simply to a frequent and imperative desire to urinate, accompanied perhaps with a small amount of tenesmus and the admixture of pus in the last drops passed.

A few other symptoms of gonorrhœal cystitis remain to be mentioned. The urine is acid and not alkaline, as is often erroneously stated. It becomes alkaline only when there is general inflammation of the bladder, and then in consequence of its fermentation when mixed with the vesical pus and mucus. Retention of urine, which we have seen to be frequent in prostatitis, is rare in cystitis. In many cases pressure above the pubes is not at all painful; in others there is a certain amount of sensitiveness, the difference being due, as is supposed, to the amount of urine in the bladder causing its distention or not. With the finger in the rectum, we find the prostate of normal size, but firm pressure, which is communicated to the vesical neck, may cause some uneasiness. The bowels in this affection are habitually constipated. The discharge from the urethra slackens or holds up during the continuance of the acute symptoms, but returns in full force as these subside.

Unlike prostatitis, gonorrhœal cystitis, except in severe cases, is attended by little or no general febrile reaction, but, as may well be imagined, getting out of bed every little while during the night to pass water, the consequent loss of sleep, the repeated attacks of pain and tenesmus, and the mental anxiety attending it all, are not conducive either to health or happiness, and patients lose their appetite and flesh, and become morose and irritable.

Fortunately the acute symptoms are of but short duration, terminating perhaps in three or four days, and rarely lasting more than eight to twelve.

It has been questioned, as by Fournier, whether the whole internal surface of the bladder ever becomes inflamed in consequence of the extension of gonorrhœal urethritis, although such an event, and even inflammation of the ureters and kidneys, has been reported. Dr. C. Murchison relates two fatal cases, one in a man and the other in a woman, of acute pyelitis and nephritis apparently consequent on gonorrhœa (Trans. Clinical Soc. of London, vol. ix., 1876, p. 25).

In rare instances cystitis of the neck may terminate in chronic cystitis, but the latter is generally due to other causes, as stricture of the urethra, hypertrophy of the prostate, the presence of stone or morbid growths in the bladder, disease of the kidneys, paralysis, etc.

The diagnosis between prostatitis and cystitis of the neck of the

bladder will be rendered still clearer by the following table, which is borrowed from Fournier:

Cystitis of the Neck of the Bladder.	Prostatitis.
I. Characteristic *vesical* tenesmus; frequent and imperative desire to urinate.	I. Vesical tenesmus much less. *Rectal* tenesmus more marked.
II. Micturition especially painful with the passage of the last drops of urine, when there is a characteristic convulsive contraction.	II. Nothing similar.
III. Toward the close of micturition, excretion of a thick fluid, a mixture of pus and blood; often also of pure blood.	III. Nothing similar. Urine normal.
IV. Mere perineal sensibility; pains radiating towards the anus much less violent than in prostatitis.	IV. Deep perineal pain, very acute, increased by motion, defecation, etc.
V. Prostate normal.	V. A very sensitive, hard, prostatic tumor is felt on rectal examination.
VI. No retention of urine.	VI. Dysuria. Retention of urine.
VII. Few or no general symptoms.	VII. General symptoms marked; fever, loss of appetite, etc.

Treatment.—Rest in the recumbent posture is of the first importance in the treatment of gonorrhœal cystitis, and it is well to place a pillow under the hips so as to elevate the pelvis and favor the return-flow of blood in the pelvic vessels. The frequency of micturition and the painful spasms which accompany the act constitute the most distressing symptoms, and these may often be greatly relieved by the introduction of pieces of ice in the rectum, as recommended by Horand.[1] To avoid injury to the rectal walls from the sharp edges of the ice, it should be inclosed in a thin piece of rubber or oil-silk, or, better still, a condom, and the latter should be well greased. The application should be renewed every hour or two.

In extreme cases, fortunately rare, the abstraction of blood from the perinæum by means of cups or leeches may be advisable. This region, however, and the internal surfaces of the thighs, may be smeared with the extract of belladonna, rubbed up with glycerine. Further treatment consists in the internal administration of cold mucilaginous drinks, with the addition of the nitrate or bicarbonate of potassa and the fluid extract of hyoscyamus, given in small quantities at a time. Opium, although objectionable on account of its increasing the constipation, must often be given to relieve the pain, and the sulphate or acetate of morphia [gram .015 (gr. $\frac{1}{4}$)], with the extract of belladonna [gram .01 (gr. $\frac{1}{6}$)], in the form of suppository, is the best.

All urethral injections must be stopped and no attempt be made to introduce instruments except in the rare cases of retention. It remains to allude to a few other modes of treatment which have

[1] Emploi de la glace contre la cystite blenn., Lyon méd., t. xv., 1874, p. 214.

been recommended. Zeissl's favorite mixture for internal use is the following:

℞. Ext. Sem. Hyoscyami,
Ext. Cannabis Ind., āā gr. ij . . . . 0|12
Sacch. alb., ʒj . . . . . 4|
M. et div. in ch. No. 8. One to be taken every three hours.

The use of the balsamics, although favorably spoken of by Hunter, was at one time abandoned and indeed thought to be injurious, but has since been recommended by Baizeau,[1] Rollet,[2] and Fournier.[3] The last-named author says that copaiba sometimes calms the erethism of the vesical neck in a marvellous manner in a few hours, but adds that it often fails completely. Sir Henry Thompson[4] also speaks well of copaiba in some cases of chronic inflammation of the bladder, but says that the doses should be small, as five minims, and be given in mucilage three or four times a day.

In place of the ice above recommended in the acute stage, some authorities recommend poultices or hot fomentations over the hypogastrium, and hot baths. If the latter be employed, immersion of the whole body is preferable to sitz-baths. If there be general febrile disturbance, aconite should be given internally.

After the more acute symptoms have subsided, benefit will be derived from the internal use of cantharides, but it must be given in very minute doses, as, for instance, one drop of the tincture to an ounce of water, of which the patient is to take a teaspoonful three times a day. Stronger doses will only aggravate the trouble. A few drops of a tincture of chimaphila umbellata, administered in the same manner, has also been highly recommended.

I have, within the past few years, found much benefit in the subacute stage of cystitis from the use of the fluid extract of kava kava, in doses of from one-half to one teaspoonful, well diluted in water. The following formula may be used in this affection, and also in the subacute stage of gonorrhœa and of gonorrhœal prostatitis:

℞. Potassæ Bicarb., ʒj. . . . . 30|
Tr. Hyoscyami,
Fl. Ext. Kavæ Kavæ, āā. ʒss, . . . 15|
Aq. q. s., ʒviij, ad . . . . . 240|
M. One tablespoonful in a wineglass of water three or four times a day.

Kava kava seems destined to take the place of the now little used and very nauseous preparations of buchu.

[1] De la cystite hém. du col complicant l'uréthrite, et de son traitement par les balsamiques. Gaz. d. hôp., Paris, 1861, p. 457.
[2] Traité des mal. vén., Paris, 1861, p. 314.
[3] Nouveau dict. de méd. et de chir. prat., t. v., p. 180.
[4] Diseases of the Urinary Organs, 3d ed., 1873, p. 199.