

der or in its neighborhood (stricture, abscess, large prostate, inflammations, stone, worms, inflamed hæmorrhoids, fissure of rectum, etc.); and though these in themselves are not necessarily complicated by a neuralgia of the vesical neck, yet they keep up congestion there and often are thus complicated, where the urine is irritating, the constitution arthritic, or especially the sexual appetite at the same time perverted or ungratified. The nervous hypochondria, with despondency, the excited and suspicious tendencies so marked and remarkable in nearly all men at any time of life in connection with functional or organic trouble in the genito-urinary tracts, are only explicable by recognizing that Nature has implanted in man a sexual want which controls many actions of his life, impels him to continue his species and cries out in distress whenever it is trifled with, ungratified, or over-stimulated, or whenever its existence seems to be menaced. A man will feel more depressed at seeing a little excess of phosphate in his urine which he thinks, in spite of all proof to the contrary, indicates a local "weakness," than he will at loss of memory or mental incapacity which he can recognize himself and be fully conscious of. There are few men who would not rather lose a leg or an eye, than a testicle; while functional or organic disease of the bladder, testicles, or penis, causes more mental inquietude and distress to its possessor than does a cavity in a lung. Why should this be, except that Nature has endowed man with an instinct of terror at the idea of losing his sexual capacity, and has established a law for the regular and judicious performance of the sexual act, which he must obey or else suffer in some way the penalty? This suffering may not be evinced by symptoms in the organs of generation themselves, and probably will not be unless through excitement of these organs by abuse or irregular use, or unless through their stimulation by erotic fancies, the patient attract the morbid nervous tendency to a local explosion. A man perfectly pure in thought and deed would not suffer from vesical neuralgia, unless, of course, some physical lesion of the parts should first occur to excite local congestion. Old maids and priests suffer from sexual distress as much as young and old bachelors and widowers, but they very rarely give any local signs of trouble. Their symptoms may be scattered over all the organs, and may impair any or all of the functions.

Symptoms.—Pure neuralgia of the vesical neck is synonymous with the condition vaguely known as irritability of the bladder. This affection is totally denied by some authors, who affirm that a lesion exists in all cases, and that it is simply a confession of ignorance to talk of pure irritability. The charge cannot be justly made. A cause for irritability can always be discovered, where there is no appreciable lesion, by studying the sexual wants and relations of the individual. It is expedient, however, to drop the term irritability of the bladder as meaning a disease, and to retain it in the signification only in which it has been adopted in this country—as indicative of that symptom, common to nearly all

bladder affections, frequent desire to urinate, where the cause lies in the bladder—hence not in diabetes or hysteria. This at once reduces irritability from a disease to a symptom, and the term may be used in ordinary description as synonymous with "frequent desire to urinate." Irritability may be found in connection with inflammatory affections caused directly by the inflammation or in the same affections kept up and aggravated by neuralgia of the vesical neck.

The symptoms of a pure case are as follows: Frequent desire to urinate, the attack coming on sometimes suddenly, sometimes gradually, without appreciable cause, or perhaps commencing in an inflammatory condition of the parts (gonorrhœa), but not subsiding with the latter. This desire to empty the bladder may or may not be attended by a slight burning pain in the act. In severe cases there is powerful tenesmus (cramp). The relief after urination is usually not perfect, and the desire soon returns. There is often a certain slowness in the act, the bladder contracting without force, and the stream being small, or, on the other hand, the bladder may contract spasmodically, when the call comes, throwing out the urine with great force. Again, there may be spasmodic contraction of the cut-off muscles leading to inability to urinate, or hesitation in the act.

There are some prominent peculiarities about these calls to urinate. They rarely disturb the patient at night. Once asleep, he rests quietly, but, if from anxiety or other causes he is restless and wakeful, he is obliged to empty his bladder frequently, by night as well as by day. When under the stimulation of liquor, the urine can sometimes be held for a number of hours. When pleasantly occupied, or deeply interested in any thing, as at the theatre, in agreeable company, or engaged at some earnest work, the bladder is often but little if at all troublesome. On rainy, damp, or cold days, the calls to urinate are more frequent, perhaps once an hour. The same occurs during idleness, and especially during mental worry or disquietude. The spirits are usually depressed, the patient anxious, perhaps hypochondriacal. The urine is usually clear, rarely shows any purulent deposit (unless the affection has lasted for months or years), but often contains an excess of amorphous phosphates. This deposit sometimes alternates from week to week with a deposit of urates. Sometimes both ingredients exist in excess. Crystals of oxalate of lime are not uncommonly present. There is no soreness over the pubes, though pressure there will sometimes call forth a desire to urinate. In the rectum there is often a slight sensation of heat and uneasiness. There is frequently a dull, dragging, uncomfortable feeling in the perinæum—but pressure there is not painful. Erections may be frequent or absent—the latter to such an extent that the patient may believe himself impotent. There may be abnormal feelings of heat and tenderness about the scrotum and testes. Added to these there may be all sorts of functional disturbances of the bowels, often constipation, with

feelings of lassitude, and general weakness. Spasmodic stricture of the urethra may come on as an accompaniment of this condition, while great irritability of the cut-off muscles exists as a rule. Nocturnal emissions are not infrequent.

On exploring the urethra with a full-sized blunt steel sound in these cases, it is customary to find the whole canal sensitive and irritable. The muscular fibres contract about the instrument, and oppose its progress. At the membranous urethra, the cut-off muscles contract spasmodically, often sufficiently to bar the progress of the sound entirely, and give the idea of organic stricture. As the instrument advances, the cut-off muscles may be felt to quiver in slight partial contractions, while the patient complains greatly of pain. When the beak of the sound enters the prostatic sinus, the patient is very apt to feel faint. He may indeed go into syncope, or have an attack of nausea; or, perhaps, a sexual orgasm may be induced, in which case the prostate and cut-off muscles contract violently upon the sound, causing the patient considerable pain. As the sound passes the neck of the bladder, either the natural feeling of a desire to urinate will not be perceived or (usually) the sensation will be highly exaggerated and painful. Sometimes spasm of the bladder will be induced and the instrument will be forced out, or a jet of urine may gush out along the urethra outside of the instrument. On withdrawing the sound, a little blood will often be found upon the beak, but the patient as a rule feels relieved, and will often experience for hours thereafter an ease and local comfort such as he has been a stranger to for months, perhaps for years; his interval of urination being decidedly lengthened, although the smarting at the next urinary act will be greater than before. The above general outline of symptoms will include most cases of pure neuralgia of the vesical neck, where there is no lesion, and has been no serious antecedent disease.

As for the symptoms of a nervous element complicating the different structural diseases of the genito-urinary tract, a detail is impossible. Suffice it to say the symptoms drag out, the disease tends to run a chronic course, attended by morbid excitability of the prostatic urethra, and an irritability of the neck of the bladder which is out of proportion to the lesions existing. This irritability is not constant, it is worse one day, better another, and subject to variations which no physical conditions can account for. Where such prolongation of the symptoms and an excitable state exist in connection with organic disease of the parts—but out of proportion to them—a profound study of the case will often bring out some sexual distress which is finding this means of expression.

Pure and simple neuralgia, if continued long enough, may finally lead to a mild cystitis around the neck of the bladder—especially if the patient give way to his frequent calls to urinate, and strain to void the last drops of urine, thereby mechanically bruising the congested

vesical neck and exciting it to inflame; just as too frequent stools produce an analogous condition of the lower end of the rectum. After such inflammation has been kindled and true cystitis exists, the neuralgic element persists with it as a rule. The history of the advent of the attack, the excessive sensitiveness and irritability of the cut-off muscles, and a diagnosis by exclusion, will rarely fail to detect neuralgia of the vesical neck, as the acting cause of cystitis where it is so. Such cystitis may be prolonged for years and finally end in death, as in Gross's case, believed by that eminent surgeon to be of malarial origin.

These cases require more careful study than perhaps any other affection of the urinary organs, and are in many instances mistaken for and treated as organic disease.

Diagnosis.—The diagnosis of neuralgia of the vesical neck is easy when considering the sensibility of the urethra as above narrated, the insensibility of the bladder-walls when touched with the point of the sound, and the great fact that the urine of pure neuralgia contains no sensible deposit of pus, while that of cystitis always does. Where the two conditions coexist, the points noted above will help to clear up the diagnosis, and establish the neuralgic element, if it exist.

The treatment is simple, and, if it can be carried out, usually brilliantly effective. An alkali, if necessary, general hygiene, and attention to the sexual element—by marriage, if possible, by continence, if there is excess; by purity of thought and deed in any case—will place the patient in a curable condition. A mineral acid with possibly a little strychnine—if the urine be neutral or phosphatic; an avoidance of alcoholic beverages, and a cessation of the use of tobacco, may be required, with, possibly, change of residence, occupation, or habits that keep up an irritable condition of mind. With these general means nothing is so potent locally, in a pure case, as the use of a moderately-sized conical steel sound, well warmed and oiled, and introduced with the utmost gentleness. The time for reintroduction will depend upon the duration of the effect of a single use of the instrument. If there is prostatitis or cystitis, the instrument will aggravate the local condition; if neuralgia, its gentle use will always be followed by comfort, and the relief will last a variable time. In old subjects it is sometimes necessary at first to reintroduce the instrument every day; in younger people every second, third, or fourth day, until a cure is effected. The action of the instrument seems to be to blunt the morbid sensibility of the parts by pressure, to improve the circulation by temporarily squeezing out the blood, and by putting the irritated muscles lightly upon the stretch. No internal medication can be relied upon in this complaint. If the symptoms rise high and approach those of cystitis, a small amount of anodyne by the rectum may be serviceable for a time.

When a neuralgic condition of the vesical neck complicates and prolongs or aggravates an existing organic disease, even here the gentle

use of the steel sound is often followed by marked benefit, although it may temporarily seem to aggravate some of the symptoms. In these cases the sexual element must be attended to in some way, while the best effects are often produced by a cessation from business cares, traveling a few weeks in the country, or a course of baths at some watering-place—the character of the water being a matter of small importance.

CHAPTER XIII.

DISEASES OF THE BLADDER.

Acute Cystitis.—Gonorrhœal Cystitis.—Diagnostic Table of Cystitis of the Neck and Prostatitis.—Pathological Lesions in Cystitis.—Treatment.—Chronic Catarrh of the Bladder.—Atony of the Bladder.—Paralysis, Heterologous Deposits, and Tumors, in the Bladder-Walls.

INFLAMMATION of the bladder, according to the anatomical portion of its walls involved, is known as—

Cystitis mucosa—catarrh of the bladder.

Interstitial cystitis.

Peri-cystitis; epi-cystitis.

These varieties, however, do not demand detailed and separate descriptions, since they follow one upon the other as grades of intensity of the same morbid process. Thus, it may be said that no form of bladder-inflammation can exist alone, except that affecting the mucous coat. *Epi-cystitis* may do so, but only as a peritonitis involving the outside covering of the viscus. Vastly the greater proportion of morbid causes acting to produce bladder-inflammation in the male exert their influence directly upon its mucous membrane, and consequently the modality assumed by the inflammation is that of catarrh of the free (mucous) surface. If, now, from long continuance or great severity of the catarrhal inflammation (formation of ulcers and sloughing), the morbid action should extend deeper and involve the connective tissue of the walls of the bladder, the cystitis at once becomes interstitial, possibly eventuating in abscess. During all this time the catarrhal cystitis keeps up, the interstitial variety being only an extension of the latter. Abscess may form in the bladder-walls, and break externally, without communication with its cavity.

Peri-cystitis is the formation of matter in the connective tissue around and outside of the bladder. This may result from an extension of interstitial cystitis, or may, and usually does, depend upon infiltration of urine, or external violence. The diagnosis presents no difficulties. The affection occurs after great mechanical violence to or in the region of the bladder, from infiltration or as a result of long-continued inter-

stitial cystitis. In peri-cystitis a point of suppuration will be found sooner or later outside of the bladder.

During *interstitial cystitis* the bladder gradually contracts down, undergoing concentric hypertrophy; its walls thicken enormously, possibly reaching the thickness of an inch. Abscess may form in them; its cavity becomes nearly obliterated, perhaps down to half an ounce; incontinence ensues; the mass, like a hard, smooth, wooden ball, may be felt in the hypogastrium, or from the rectum, of a size varying with the duration of the disease. It may be as large as a man's first. It is not necessarily very sensitive to pressure, and is smooth and of even hardness on its surface. This condition of bladder-disease is not curable. Its walls cannot be redilated. Palliation is the treatment.

Inflammation of the bladder is not found as an idiopathic essential disease; that is, it does not occur except through the intervention of some cause acting locally. Thus, the effect of cold, so active in producing catarrhal inflammation of certain mucous membranes (conjunctival, Schneiderian, gastric, intestinal), is powerless to excite inflammation in a healthy bladder, however active it may be in kindling an existing congestion, or chronic inflammation, into an acute state. The apparent exception to this rule, found with certain acute diseases, and with paralysis from spinal or brain lesions, is explained by recognizing the local effect of over-distention, or of acid or retained (decomposing) urine (Case XXVI.). Gonorrhœal cystitis is a complication, not an essential disease. In cheesy tubercle and cancer, as well as in diphtheria, there must be a local deposit in the bladder-walls before cystitis comes on. The nearest approach to an essential cystitis, if it may be so called, is found in that form produced by an overdose of cantharides. This substance has the power of directly congesting the vessels of the neck of the bladder and prostate—and such a cystitis could hardly be called idiopathic.

From the foregoing it is evident that acute cystitis does not occur spontaneously, and is an exceedingly rare affection, except as an exacerbation of already-existing chronic disease, or from traumatic causes, mechanical or chemical (irritating urine). Chronic cystitis, on the other hand, is very common, so much so that there are few diseases of the urinary passages of which it does not form a part. Chronic cystitis, moreover (unlike many other chronic inflammations), rarely commences as an acute disease, but is chronic from the first, becoming afterward acute, from time to time, by the action of provoking causes. Chronic cystitis, therefore, would naturally demand consideration first, but, for convenience of description, the artificial order is adopted.

ACUTE CYSTITIS.

The causes of acute cystitis are fourfold:

1. Traumatic, mechanical, or chemical.