TREATMENT IN GENERAL PRACTICE

This article, one of a series on renal diseases, concludes the second group of articles on Treatment in General Practice, which will shortly be published in book form by H. K. Lewis and Co., the publishers of the first volume.

TREATMENT OF CYSTITIS

BY

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Cystitis is rarely, if ever, a disease arising *per se* in an otherwise normal bladder. It arises from many sources, both within and without the genito-urinary tract, the cystitis being entirely a secondary manifestation of the causative disease. Therefore it is quite useless to try to treat the cystitis until the cause has been removed or treated. The first essential is to make a correct diagnosis, so let us consider the various causes and their treatment.

I.—Causes Arising within the Bladder

(a) *Calculi*.—Calculi of calcium oxalate or composed of mixed urates cause cystitis by mechanical irritation of the trigone and internal meatus; and occur in a macroscopically clear and acid urine. The symptoms clear up rapidly on the removal of the calculi. Phosphatic calculi never appear in a clear urine, but are secondary to a pre-existing cystitis and simply aggravate the symptoms already present. They appear in those cases of two-stage prostatectomy where there has been cystitis for a long time before operation and in which the urine tends to remain alkaline after operation. The treatment is to remove the stone and give bladder washes afterwards, at the same time endeavouring to make the urine acid by the administration of drugs. Phosphatic calculi also form round foreign bodies, and are most usually found in women, having been introduced as a rule in an attempt at abortion. Phosphaturia produces symptoms of cystitis, commonly in patients who are worried. It disappears with the removal of the nervous cause.

(b) *Injuries*.—A ruptured bladder following a fractured pelvis becomes inflamed, but the cystitis usually clears up rapidly after the bladder has healed and is emptying itself naturally.

(c) *Diverticulum*.—A diverticulum does not as a rule cause cystitis, but will keep up a cystitis due to an obstruction, such as an enlarged prostate, because it fails to empty, and the cystitis will never disappear until the diverticulum is removed. But if this is inadvisable owing to the patient's general condition the cystitis may be relieved by bladder washes of 1 in 4,000 oxycyanide of mercury and by making the patient get into the "knee-elbow" position morning and evening to ensure that the diverticulum empties at these times.

(d) *Neoplasms*.—A carcinoma of the bladder always causes cystitis once it has ulcerated, and papilloma may cause cystitis if situated round the internal meatus and giving rise to obstruction. As a rule there is a history of painless haematuria before the symptom of cystitis supervenes.

II.—Obstructive Causes

In obstructive cases the bladder hypertrophies and then gradually dilates; it loses its tone and fails to contract completely so that there is residual urine, and sooner or later infection develops.

(a) *Enlarged Prostate and Urethral Stricture*.—Cystitis due to obstruction is most often seen in men suffering

from an enlargement of the prostate or an untreated urethral stricture. The condition will never resolve until the obstructive cause is removed. Suprapubic drainage and bladder washes help to improve the state of the bladder and enable the obstructing cause to be removed. In some long-standing cases the cystitis persists after operation, and then it can be cured or improved by bladder washes.

In cases of acute prostatitis—commonly due to the gonococcus or *B. coli*—the cystitis is partly inflammatory and partly obstructive. The patient should be given 1-drachm doses of potassium citrate two-hourly until the urine is alkaline, and then sufficiently often to keep it so for a fortnight after the symptoms have subsided. If such a cystitis becomes chronic the treatment will be by bladder washes and prostatic massage.

(b) *Vesical Calculus and Post-operative Causes*.—When acute retention due to a calculus impacted in the urethra or to a retroverted gravid uterus is relieved by removing the calculus or anteverting the uterus cystitis may follow if the patient has had to wait a long time for relief and the bladder has become overdistended; it rapidly disappears after the bladder has recovered its tone. The same applies in cases of post-operative retention. After operations such as excision of the rectum or total hysterectomy cystitis often follows. Some surgeons recommend tying in a catheter and giving bladder washes after the operation to prevent this.

(c) *Cystocele*.—A frequent cause of cystitis in women is the presence of a cystocele. The patient fails to empty the bladder completely and cystitis results. These cases may be temporarily assisted by bladder washes and the exhibition of urinary antiseptics, but will relapse unless the cystocele is treated.

III.—Renal Causes

In pyelitis there is always a secondary cystitis; in fact in mild cases the only symptoms may be those of cystitis. After the renal infection is cured the cystitis may persist. (Pyelitis has been dealt with in another article in this series.) Tuberculous cystitis starts in the kidney and spreads down the ureteric lymphatics to the bladder or spreads up from the epididymis. If the primary seat of the trouble is removed then the bladder has a chance to heal. Tuberculin inoculations and artificial sunlight baths will help in the cure, but bladder washes usually increase the dysuria.

IV.—Causes from Adjacent Organs

Carcinoma of the rectum or cervix may invade the bladder and cause cystitis—a sign that the case is inoperable. Diverticulitis of the colon may become adherent to the bladder and finally form a fistula. This causes severe cystitis, marked by the passage of faeces and flatus in the urine. The only treatment is a colostomy; then the cystitis, as a rule, clears up rapidly.

V.—Central Nervous Lesions

(a) *Tabes Dorsalis*.—In tabes cystitis occurs when the bladder becomes atonic and fails to empty. The treatment is by permanent suprapubic drainage and bladder washes through the suprapubic tube.

(b) *Fractured Spine*.—In cases of fracture of the spine with resultant retention the aim is to acquire an automatic bladder. A catheter should be tied in directly after the accident and a new one inserted every third day. Bladder washes twice a day should be carried out, and after three to six weeks the bladder may recover, as shown by its resisting on giving the bladder wash. The catheter can then be removed, and in successful cases the bladder empties itself as soon as it is filled to a certain capacity.

(c) *Paraplegia*.—In cases of paraplegia it is best to tie in a catheter so as to let the bladder drain all the time. Bladder washes should be given morning and evening. The catheter should be changed every third day. For females a small Malecot self-retaining catheter is best, as it is easy to pass through the urethra on the end of a probe and it is easily retained in position.

Drugs and Catheters

Of the many drugs in use potassium citrate in 1-drachm doses is the best in acute cases, acid sodium phosphate, 30 grains, with hexamine, 10 grains, three times a day in the chronic cases. Patients with dysuria are often relieved by saw palmetto elixir with ol. santali (Parke Davis), 1 drachm three times a day. Some patients are benefited by drugs such as pyridium or neotropin. The treatment of *B. coli* pyelocystitis is given in detail in an article on that subject in the *British Medical Journal* of September 19th (p. 599).

It is best that the practitioner should employ the type of catheter that he is in the habit of using. In the case of a female the glass catheter with four inches of rubber tubing attached to the end of it is very useful for giving bladder washes. In a male, if the rubber catheter cannot be passed, the Marshall, Coudé, or bi-Coudé catheters are best, and it is advisable to use a fairly large one, such as a No. 10, as fine ones may give rise to false passages. All the modern gum-elastic catheters may be sterilized by boiling for two minutes and then placing into cold sterile water or a weak antiseptic solution. There is practically never any need to use silver catheters nowadays, and in unskilled hands they are a danger.

The catheter should be passed with a strict ritual. First the glans penis (or the vulva) should be cleaned with a wet swab and the urethra irrigated with half a pint of the solution to be used for the bladder wash. After thoroughly cleansing the hands lubricate the catheter with a sterile lubricant such as lubafax or sterile olive oil, then pass the catheter slowly and very gently. If the patient has a spasm of the sphincter and will not allow the catheter to pass fill up the anterior urethra with 5 per cent. novocain, then hold the solution in the urethra for five minutes.

If the catheter is to be retained in position a simple method is to pass a small safety-pin through the catheter near the meatus, attach a piece of tape to either end of the pin, and then fix the tapes to each side of the penis by a piece of strapping wound round the penis below the glans.

Bladder Washes

The best bladder washes are 1 in 4,000 oxycyanide of mercury, 1 in 10,000 silver nitrate, or 1 in 2,000 potassium permanganate. Some bladders are very irritable and will not tolerate these antiseptics; in such cases a half-saturated solution of boric acid may be used.

Bladder washes should be made up to a temperature of 110°F.; this cools down considerably on passing through the tube of the irrigator. Hang a douche can, holding two pints of the solution, three feet above the level of the recumbent patient, then place the nozzle in the end of the catheter and let three or four ounces run

into the bladder, withdraw the nozzle and let the bladder empty. Repeat the process until the two pints have been used. In some patients it is possible, by Janet's method, to wash out the bladder without passing a catheter, but this is not easy unless the practitioner is used to the method.

Bladder washes should, when possible, be given every day. Chronic cases of cystitis may be cleared up by putting half an ounce of 10 per cent. collargol once a week into the empty bladder.

In conclusion, it may once more be emphasized that the important point is the diagnosis of the cause of the cystitis, as until this is removed there is little prospect of cure.

MEDICAL DEFENCE UNION

THE ANNUAL REPORT

The report of the council of the Medical Defence Union presented at the annual meeting on September 24th reveals increasing membership and financial assets, and if the number of cases dealt with is rather less than during the previous year there are some of outstanding importance. The net increase of members is 471, the total membership now standing at over 19,000, and the available funds at £112,566. The need for medical defence is not restricted to medical men in private practice. Steps have recently been taken to draw the attention of all practitioners engaged in hospital work, both at voluntary and municipal institutions, to the special risks they run while unprotected and detached from the service and advice of a defence organization. Calls for advice and help for practitioners in the public health service are also increasing. With the expansion of medical services consequent upon the break-up of the Poor Law, further liabilities must be expected such as can only properly be borne by a defence organization. The view has been expressed from the bench of the High Court in two recent actions that local authorities are not responsible for the negligence of their medical officers in a professional capacity, a point which occupants of those positions would do well to bear in mind.

The report contains a summary of typical cases. These concern disputed accounts with allegations of negligence, alteration of certificates, mishaps at operation, mutual charges of negligence by members, and many other matters showing how wide and varied a field is covered. Often the first intimation of a charge of negligence is given after the doctor has sent in his account, obviously in the hope that the account will be reduced or withdrawn. In some cases the complaint is persisted in until the very last moment in the belief that the doctor will make some compromise owing to fear of the publicity entailed if the case goes to court. This fear of the results of publicity is, however, in the Union's experience, exaggerated. Patients as a whole have a sense of fairness towards their doctors, and an unjustifiable allegation of negligence tends to bring out their loyalty.

A Singular Case

An interesting section of the report is contributed by the solicitors to the Union (Messrs. Hempson), who take occasion to acknowledge the loyalty of medical men to their profession in times of trouble and difficulty. "If a medical man is in real trouble we have never experienced the slightest difficulty in obtaining assistance from every rank of the profession without thought of reward or even of compensation for the work involved and the loss of time entailed." Among the cases settled out of court during the year was one which was singular, if not unique. Many years ago in the course of an intramuscular injection the needle was broken in the patient's thigh. No immediate operation for removal was performed and no discomfort was experienced. Recently, however, the patient felt a certain pain in the thigh, and consulted a doctor and informed him of the broken