REMARKS

ON

A NEW MODE OF AFFORDING PERMANENT
RELIEF TO INTRACTABLE CHRONIC CYSTITIS,
AND TO CONFIRMED PROSTATIC
RETENTION OF URINE.

By SIR HENRY THOMPSON, F.R.C.S.,

Surgeon Extraordinary to His Majesty the King of the Belgians, Consulting
Surgeon and Emeritus Professor of Clinical Surgery to University
College Hospital, etc.

I HAVE long been anxious to discover a means of affording some permanent relief to those who suffer with severe and long standing prostatic disease. I refer to a condition in which the patient, having for several years relied entirely on the use of a catheter for the removal of all his urine, finds the bladder becoming so intolerant of its contents, that the act of catheterism, at first perhaps employed but three or four times in the twenty-four hours, must now be repeated under penalty of unendurable torture, at least every hour or hour and half. His time is indeed chiefly spent, both by day and by night, partly in suffering from retained urine, and partly from the painful catheterism for the sake of the temporary relief it affords.

It is more than fifteen years ago since I first attempted to mitigate this condition by tapping the bladder above the pubes and establishing an opening thereby which to empty the bladder, and to supersede, for a considerable time at least, the otherwise inevitable frequent catheterism.

But the cases in which it appeared to be warrantable to adopt this somewhat grave remedy, were mostly examples of the disease in a very advanced stage; and, for three or four such, the last few weeks of a doomed life were rendered by that proceeding comparatively comfortable.

In two others, the disagreeable leakage of urine which took place round the tube, greatly interfered with the patient's comfort, and with his ability to take exercise, etc. The plan seems therefore to be applicable only to the cases first referred to; and it appeared that the power to afford substantial relief to patients who, were it not for the severe local suffering, possess healthy constitutions and some vigour, was still a desideratum.

The essential element of the difficulty in these cases is evidently the presence of a severe chronic cystitis, from which there is no escape; since the continued mechanical interference, rendered necessary by retention, perpetuates and intensifies the cystitis. The patient is, in fact, the victim of a vicious circle of actions, in which an indispensable remedy, the catheter, aggravates the inflammation of the bladder, which therefore, in its turn, demands the instrument with increasing frequency.

It occurred to me, then, that were it possible to suspend all action on the part of the bladder for a few days only, to prevent any accumulation of urine with the organ, to allay the constant and painful want to pass urine, and also at the same time to abolish catheterism altogether, with its irritating effect on the urethra, the inflammation of the bladder might subside, and its tolerance of urine might considerably increase. And I hoped that a state of things might be subsequently brought about, similar to that which is present in a less aggravated stage of obstruction, when catheterism is not needed more than six or seven times in the twenty-four hours. If, in place of hourly relief by the instrument, an interval of three or four hours could be made to suffice, an enormous boon would be conferred on the patient.

This object, it seemed to me, might probably be attained by a proceeding of the following kind. First, placing the patient in the lithotomy position, under ether, I proposed to pass a grooved median staff into the bladder, and make, from the raphe of the perinæum, a small vertical incision just above the anus, large enough only to admit the index finger—the incision to terminate in the staff at the membranous portion of the urethra, which should be divided for half an inch at most, so as to admit the finger to traverse the canal to the neck of the bladder. Then, having withdrawn the staff, I proposed to insert a large vulcanised catheter or tube, say about No. 20 (English scale), with its extremity just within the bladder, fastening it there by tape to a bandage round the waist; the tube to be retained as a channel for the urine, for several days at least.

An opportunity soon offered of making an opening in the manner described, for a patient at the age of sixty, who was passing the catheter every hour, and whose vital powers were at the lowest ebb from constant suffering and loss of rest, but whose constitution was apparently sound; and I placed in the bladder, by the new passage, an India-rubber catheter, so that the urine might flow off continuously into a receptacle as fast as it arrived in the bladder. The relief was immediate, and most remarkable. He enjoyed long periods of unbroken sleep, and was unconscious of any pain; while the urine itself, which had been charged with muco-pus and blood, and had been alkaline and offensive in the highest degree, assumed in the course of a few hours a healthy colour, an acid reaction, and was almost clear. In two or three days, the patient had regained appetite and digestion, became cheerful, and showed a change for the better, which no one had been sanguine enough to anticipate. On the eighth day, I removed the catheter from the wound; during the next two days, urine issued by that route at intervals of some hours; but the wound, which was very small, rapidly closed, and the catheter was, of course, again necessary. But the passing of the instrument was no longer painful; the bladder was not inflamed, and could now retain urine three or four hours without inconvenience; while the patient himself, in less than three weeks from the operation, was enjoying an active life out of doors, having been long confined to his room in the suffering condition which has been described in general terms above. The operation was performed on the 20th of March last, in the presence of my friend, Dr. Chepmell, and others.

I saw my patient, a highly esteemed and well-known member of our own profession, on the 14th October last. The report, in his own words, was then as follows. "I use the catheter now only six times in the twenty-four hours, instead of eighteen or twenty times. The urine is a little cloudy—mostly acid, sometimes the reverse. I can drive for two or three hours in the afternoon without pain or fatigue, taking usually a morning walk of a mile or more. My general health is good. The degree of relief afforded by the operation can scarcely be exaggerated."

On the 30th of June last, I performed the same operation on a gentleman, eighty-three years of age, who was suffering from unusually painful and frequent micturition, the interval rarely amounting to three-quarters of an hour either by day or night. He could, however, nearly empty his bladder by his own efforts, and required the catheter only once a day; its employment affording very little relief. It was one of those rare examples of such a condition existing, in which no calculus and no organic changes in the urinary organs could be discovered. As his constitution was excellent, I did not hesitate (his age notwithstanding) to pursue the course described in the preceding case—failing to find, on examination, either tumour of any kind, or calculus. The immediate relief, however, was so great, that I did not remove the India-rubber tube from the wound until the twelfth day; and he was then very unwilling to part with it, since he had not been so comfortable for upwards of a year. He had also been able to dispense altogether with the use of morphia, which, up to the time of the operation, he had been compelled to take in full doses. The wound rapidly healed; he retained urine from two to three hours, using his catheter only once in the day as before. Such was the report he gave me in the early autumn, as I left town. During my absence, he ventured to take much more exercise than he had been of late accustomed to, and had a relapse. When I saw him on my return (October 7th), he was gradually improving, and was very grateful for the change; saying he would gladly again submit to the operation, if anything like the old painful condition reappeared, as he had experienced nothing but relief from the proceeding. However, such a course does not at present appear to be necessary or imminent.

Such are two typical cases widely differing; the former an example of a comparatively common condition, the latter one of very rare occurrence. In both instances, I attribute the benefit to a temporary suspension of function in both the bladder and the urethra; in the bladder as a containing viscus, in the urethra as a channel or transmitting one. By means of the tube the urine leaves the body almost direct from the ureters, while the bladder and the urethra, being in a state of perfect quiescence, cease almost immediately to be inflamed; all muco-pus disappears, and the urine is discharged in as healthy condition as it leaves the kidneys—that is, free from any adventitious product of the passages. Another illustration of the extremely rapid recovery which the bladder is capable of making, even when it has been inflamed for a long period of time, which I have often had to note after removing a stone from its interior. Within six hours after emptying the bladder of broken calculous matter I have seen the urine, which had been for weeks charged with inflammatory products, flowing off absolutely clear. I cannot doubt, therefore, that this great recuperative power may be

rendered available for the relief of obstinate cystitis produced by other causes than the presence of stone. By means of this simple incision, also, an opportunity is obtained of making "digital exploration of the bladder," on the plan which I recently proposed as a systematic procedure for the diagnosis and treatment of obscure cases. While the patient is fully under the influence of ether the operator is to make, with his right hand, firm suprapubic pressure, by which means he is able to bring every portion of the inner surface of the bladder consecutively over the tip of the left index finger, introduced by the opening to the neck of the bladder, and thus to ascertain its condition and contents. I fancy that calculous deposit, or impacted calculus, is thus detected. Its removal may be accomplished, supposing it to be movable, as it mostly is. I have now performed the operation described in ten cases for various purposes, and in two of these I have been able to remove adhering and impacted calculus where its presence was little suspected, in one instance, with a remarkably successful result. Both these cases I had the advantage of seeing in consultation with Sir William Jenner before deciding on the operation.

I am aware that proposals have long ago been made to "perform lithotomy" for cases of intractable chronic cystitis associated with enlarged prostate, no doubt partly on the ground that division of the prostate itself might be serviceable. This, however, is a measure of far greater risk than the operation I have employed, which is simply a very limited external urethrotomy, leaving both bladder and prostate free from any action of the knife. But I am satisfied that no benefit follows even the incision and dilatation which necessarily take place in the operation of lithotomy in prostatic cases, as far as restoration of the power of the bladder is concerned. I have performed the lateral operation for several patients who had been long previously unable to pass any urine except by catheter, and in operating I have sometimes removed considerable masses of tumour, and have always been disappointed subsequently at finding no improvement whatever in regard of the patient's power to micturate without artificial aid. The performance of lithotomy, then, ought not to be contemplated in any case with the object in view now under consideration. The withdrawal of the urine, however, by an opening into the membranous part of the urethra is a very safe and simple proceeding, and will, I am satisfied, afford more or less relief for a considerable period of time to patients whose sufferings are due to the action of very frequent catheterism upon passages which have long been severely inflamed.

NOTES ON A CLINICAL LECTURE ON CHOREA AND RHEUMATISM:

THEIR RELATIONSHIP ILLUSTRATED BY THE TIME OF THE
OCCURRENCE AND THE TREATMENT OF THE FORMER.

BY THOMAS R. FRASER, M.D., F.R.C.P.E., F.R.S.,
Professor of Materia Medica and of Clinical Medicine in the University
of Edinburgh.

GENTLEMEN,—There is at present under my care in Ward xvi a patient who recently presented in a very exaggerated form the symptoms of the disease chorea. Many of you will recognise the case as that of a boy, 15 years of age, who was admitted a few weeks ago into the hospital. When we examined him on the day following his admission, he presented a remarkable picture of ceaseless disorderly movements. His face was constantly exhibiting the most grotesque grimaces, sometimes one set of muscles being affected, sometimes another; but these movements appeared most marked in the muscles of the eyelids and of the face, the eyes and mouth being opened and shut, and the latter also distorted, almost without ceasing. You observed, further, that the patient tossed about in bed, jerking his head, arms, legs and body in all directions, irregularly and without pause; and we learned that it had been found necessary to restrain the movements of the body by tying a sheet over the bedclothes, in order to prevent the patient from being thrown out of bed by the unceasing jerks and contortions that were occurring. This strange madness of his motor functions was evidently beyond the control of his volition. However emphatically he was asked, he was unable to remain quiet, although at times, by a strong effort, he succeeded in diminishing slightly the general unrest for a few seconds. When he attempted to stand, his limbs were jerked about in all directions, and they refused to support the body. When he was invited to extend his arms or fingers, they were suddenly projected and withdrawn, or the arms rapidly assumed the positions of flexion, exten-

sion, pronation, and supination. He could not convey a cup of water to his lips, nor hold a pen properly in his fingers; and when he attempted to do so the pen was twisted about in all directions, and sometimes fell from his grasp. His attempts to write resulted in jerky scrawls all over the paper. When he was asked to put out his tongue, although no effort to do so was obviously made at once, the tongue did not appear for fully half a minute, and then it was suddenly shot out and as suddenly withdrawn. Co-ordinated movements were altogether impossible, and it even appeared as if this riot of the muscles had extended to the involuntary muscles, as the swallowing of liquids and solids was attended with delay and great difficulty; but the difficulty seemed to depend upon the conveyance of the food from the mouth to the entrance of the oesophagus, and to cease after it had once entered that canal. His bowels had been confined for several days, but subsequently several involuntary evacuations occurred. Micturition was disordered; when he attempted to micturate he failed in doing so for several minutes, and at other times he was unable to retain his urine. I think you were able to convince yourselves that the intelligence and memory of the patient were unaffected; that he was free from hallucinations: that his special senses were unimpaired; and that, with the exception of slight hyperæsthesia over the chest, the general sensibility was not modified.

It is not, however, to this picture of a well known disease, although presented in bolder outline than is usually seen, that I wish to specially direct your attention. Many of you will recognise the patient as one who was first admitted into the hospital eleven days before he again came under my care, suffering from the symptoms I have described. On the former occasion (October 21st), the illness for which he sought relief was of an altogether different character. He then suffered from rheumatic fever, which began two weeks before his admission, and affected—with its ordinary symptoms of pain, tenderness and swelling—the ankles, knees, hips, and elbows. He also suffered from lesions of the mitral and aortic orifices, which had undoubtedly originated during this illness, and previously to his admission. In my absence from town, the resident physician had treated the patient—as such cases are always treated in my wards—with salicylate of soda. Twenty grains were administered thrice daily in the first instance; and, three days afterwards, the temperature had fallen from 102.6° Fahr. to 99.4°, while the joint-symptoms had become greatly relieved. In a few days, he appeared to have completely recovered from the acute polyarthritis, but he was permitted to leave his bed sooner than is advisable; and, on two occasions, a relapse occurred, which again disappeared after a few days of strict confinement to bed, and more frequent administration of salicylate of soda. These accidents, and the state of his heart, led to his being detained in hospital for a longer period than would otherwise have been necessary; and, at the end of November, while he was convalescent and an invalid only because of the cardiac disease, an event occurred of much significance in respect to his subsequent history. On the 30th of that month, one of the other patients in the ward is stated by him to have threatened to punish him for some petty fault, and it was noticed that his manner became depressed, that he wept bitterly at times, and refused to assign any cause for his distress. These circumstances were ascertained only several days afterwards. On December 1st, he disappeared from the ward, and we discovered that he had gone home. On December 3rd, his father, and the medical gentleman who had sent him to hospital, reported that our patient had become seriously ill, and urgently requested that he should be again admitted. When he returned, he presented the remarkable symptoms, totally different in their character from those for which he had been originally admitted, which I have described at the commencement of my remarks. He was now suffering from the characteristic phenomena of an exaggerated attack of chorea. The history of this illness strikingly illustrates the causal relationship, now familiarly recognised, between chorea and acute rheumatic polyarthritis on the one hand, and mental perturbations on the other. He had scarcely recovered from the former disease when the chorea appeared. The time interval between the mental perturbation and the chorea was a very brief one; for, on the day following the threat of punishment, we now learned that he became very restless; two days afterwards, when he had left the hospital, he observed twitching in his hands, feet, and face; and on the next day, his condition was as remarkable in the exhibition of general contortions and uncontrollable jerkings of the limbs, as when he came under my observation.

The former relationship is still further illustrated by the further course of the disease, and, I think, very distinctly, also, by the course it pursued under treatment.

When the patient returned to hospital, the violence of the choreic symptoms, and their interference with sleep, led to our giving him bromide of potassium, in doses of fifteen grains thrice daily. The effect