

up more or less active irritation and inflammation of the mucous membrane of the organ. Then it will be found that the urine contains more or less mucus, and that it is probably thick and cloudy, and when the catheter is passed a few ounces of turbid, offensive fluid may be removed. When this condition has lasted even for a few days, inflammation of the bladder, or *CYSTITIS*, may be set up; and then it is possible that the patient may not only suffer from the feverishness which accompanies most inflammatory conditions, but may even develop symptoms indicative of a form of blood poison, and which are due to absorption into the blood of putrefactive germs from the bladder.

Formerly, this was not understood, and when, in such cases, the passage of the catheter was followed by such symptoms, the attack was designated "catheter fever." It seems probable that, on such occasions, the catheter had not been properly sterilised or cleaned, and that it had therefore conveyed bacteria into the already decomposing fluid in the bladder, which formed an excellent nest for their dangerous and rapid development. One of the first lessons, therefore, which the Nurse who is in attendance upon patients suffering from brain or nerve affections must remember, is that, amongst the various functions of the body which are disturbed by the loss of nerve control, bladder troubles may be the most dangerous. It is therefore necessary to be most careful to measure and examine the quantity and the quality of the urine passed each day, and to report at once any evidence of decomposition in the latter which may be noticed.

Then, if the catheter is ordered to be used, the Nurse must remember that the first and most important rule is that the instrument must be made absolutely aseptic before it is passed. It is by no means sufficient to secure this condition, as some untrained nurses seem to think, to dip the catheter casually into warm water, or even, as others do, to run a little water through its length. A great danger of the instrument consists in the hollow end, which it is almost impossible to clean by such means. An ideal catheter should have the opening made close to the end, and beyond the opening and the point it should be solid; but with the imperfect instruments at present in use the method of procedure should be somewhat as follows:—A gum elastic catheter is taken—number 10 size is preferable for

most cases. This should be rinsed through with boiling water, then placed in a solution of corrosive sublimate of about 1 in 1,000, and kept there for five minutes; then washed through again with hot water; finally being placed in water which has been recently boiled until required for use. It should then be smeared with carbolic oil or vaseline and gently passed into the bladder, the golden rule being, never to use any force.

When the urine ceases to flow, the thumb should be placed over the opening of the catheter, and the first and second fingers employed to withdraw it gently. By this means, any urine which is in the tube is retained there, and will only run out when the catheter is held over the receptacle and the thumb removed. The instrument should immediately be placed in the sublimate solution (1 in 1,000) and there retained until the patient has been seen to. The catheter should then be washed through for two or three minutes with quite hot water, and then be placed in sterilised water, or some antiseptic solution, in a stoppered glass jar, until it is required for use again.

If the bladder has to be washed out, as frequently happens in cases of *Cystitis*, the necessity of antiseptic precautions are even greater. If the injection is given, as is often the case, by means of the hydrostatic tube, the possibility of air being introduced into the bladder and the possible dangers of such a consequence must also be remembered. If an ordinary funnel be used, both this and the india-rubber tubing attached to it should be placed in boiling water, containing some sublimate solution, and then rinsed through with boiled water. Then the liquid to be employed for the injection should be made to fill the funnel and the india-rubber tube, and the end of the latter is compressed tightly by the finger and thumb while the funnel is lowered to the level of the patient's body, so that no air can enter the tube, and that this may remain full of fluid while it is being attached to the end of the catheter. Then the funnel should be raised about four feet above the patient, and it should be kept constantly full of fluid until the quantity ordered by the doctor for one injection—in other words, the quantity with which the doctor desired the bladder to be distended—has been employed.

(To be continued.)

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