

UROLOGY

No. 25.

16.11.56.

Johnstone

13

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19

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Urology1. (a) Panendoscope.

3/15
Same instrument

The most commonly used panendoscope is McCarthy's pre-oblique instrument. This is inserted, after sounds have been passed to widen the lumen, into the urethra for examination and diagnostic purposes. The female panendoscope is much shorter than the (male) one used for men.

Anterior catheters may be passed through the instrument to obtain specimens or so that a retrograde pyelogram may be done. It is also used for the examination of the bladder. and urethra.

7. (b) Rectroscope.

4/15

This is used in trans-urethral resection or removal of the male prostate gland. It is about four-tenth inches long and has two sheaths. The outer sheath contains a small light to illuminate the urethra and the inner sheath, which fits inside the other accurately, contains an arrangement of lenses and an eye piece to enable the operator to have a clear view of the operation. The rectroscope is connected to the diathermy machine. When the current is on a small wire at the end of the rectroscope moves backwards and forwards and slices off a small slice of the prostate gland. A small lead connects the instrument's light to a battery nearby. The rectroscope ~~also~~ also allows the area to be rinsed with normal saline or sodium citrate, by an arrangement at the outer end.

4/15 (c) Lithotrite.

This is an instrument used for crushing stones in the bladder. It is something like a pair of long curved forceps and is passed ~~via~~ via the urethra. It is of course to remove the stone, which must be rinsed out after being crushed.

(d) Solink Evacuator.

This evacuator is used in conjunction with cystoscopes and resectoscopes and is used to rinse the operating area of blood or debris. It is attached to the end of the instrument, and connected by a latex tube to a douche can of sterile saline or sodium citrate suspended from the roof or stand. As the solution is allowed to pour in the bulb at the outer end draws it up, the evacuator ~~upwards~~ and it is emptied into a bucket below. The bladder and ureters are rinsed like this until the return of fluid is clear.

(e) Indigo Carmine.

This is an indelible dye which is used when performing a retrograde pyelogram. Seven c.c.'s are passed into the pelvis of both kidneys via the cystoscope and ureteric catheters. It may be calculated if there is any renal deficiency by the way it is excreted into the bladder via the ureters - i.e. if it spurts or dribbles, the time taken and the shade of colour of the dye.

2. Cystoscopy 'set up'.

Two sterile trolleys are set up - one, covered with a sterile sheet and containing two flat dishes in which the cystoscopes are immersed, ^{in pyelogram} to the left of the surgeon, and the other trolley on his ~~left~~ right.

On the second trolley, covered with a sterile mackintosh and sheet, are all the other sterile instruments necessary. These include: sterile drapes for the patient; Bowls for kidney dish, with forceps containing the skin preparations; bowl with gauze swabs; jug of extra lotion for rinsing the bladder.

(sodium citrate 3.8% or normal saline)

Crushed calculi.
Resected fragments of prostate.

No perfect instrument
2/11

depth?

2 (cont.)

~~do~~

douche can of lotion, with tubing and clamps.

two kidney dishes

several sounds (assembler according to surgeon)

gauge rods covered with the sterile lubricant (Lubaflex)

several urethric catheters.

Some surgeons also require a square latex rubber drape to place around the area being used on the patient.

At hand should be the battery for cystoscope light and a bucket to catch the drainage from the skin preparation.

If specimens are to be taken, ~~at~~ three test tubes will be required - one for urine from each kidney and one from the bladder. These should be carefully labelled.

If the patient is to be catheterized afterwards a sterile rubber catheter, with a clamp and strapping, should be available.

The cystoscopes should be thoroughly rinsed, before use, in a bowl of sterile water.

Sterilization of cystoscopes and urethric catheters

The cystoscopes are rinsed in cold water, then scrubbed gently with the warm soap and water. Care must be taken to ensure that nothing is stuck to the lumen. If there is dried blood it may be removed with sodium citrate or peroxide. After rinsing again, and being dried, the cystoscope should be (rubbed) wiped with spirit. The lamps at the end should not be touched by the spirit as it may dissolve the special cement holding it in place. The light is tested to see that it still works, and the thread of the globe greased. When replacing the cystoscope in its box, care should be taken to see that it is not forced in, as they are very easy to break.

Urethric catheters are cleaned by rinsing with cold water and syringing them through with

Syringe
needles.
Indeg. examine
test leg.
ph.

18
1/2

Telescope

What do you
do with it when
you take it
out of its box?

d (cont.)

4
cyanide of mercury 1:1000. They are then rinsed and dried, and stored in long cylindrical containers, with paraffin tubes inside, and corked at both ends.

3.

Fluid Balance

The normal healthy person usually drinks slightly more than he voids, the balance being excreted as perspiration, tears, etc. When an organ, such as a kidney, is damaged this balance of fluid intake equalling fluid output is upset, the difference being passed elsewhere, such as oedema, or failing to be excreted by the kidneys.

The usual fluid intake daily is approximately three to four pints, and the urine voided about two or three pints. The exact balance between the two cannot be accurately estimated, as it is passed as perspiration, vomitus, saliva, ⁱⁿfaeces and on the breath, but a record, ~~of~~ as correct as possible, will give some indication ~~of~~ abnormality.

The main cause of reduced output is reduced intake when the patient is ill, and not eating. This is corrected by encouraging them to drink, if possible; otherwise fluids may be given intravenously, rectally or subcutaneously to prevent the patient from becoming dehydrated.

Renal failure also causes decreased output; this is treated for the specific cause by medicine, chemotherapy or surgery.

Diet may be at fault to upset the patient's fluid balance. If there are too many foods containing sodium the arrangements of osmosis and radiolysis is upset in the kidneys.

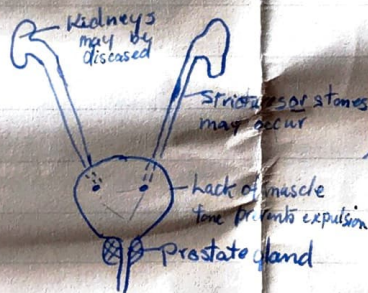
3. (cont.)

Osmosis is the balance maintained in the tissues between sodium and potassium, one ~~contracting~~ fluid and the other counteracting it. If one or the other is deficient, the opposite element unbalances the normal fluid levels.

The fluid balance charts kept in the wards endeavour to chart the amounts passed in and out as accurately as possible. These record the intake under the headings of: Oral, Rectal, Refus, Intra-venous and any other route and the output as: Urine, Faecal, Diaphoresis, Vomitus, catheter methods. The difference between the two totals is noted and reported.

If the kidneys are impaired, it will be from diseases such as nephritis, stones, tuberculosis, or growths or traumas. Stricture in ureters at the urethra prevent the passage of urine, and lack of muscle tone in the bladder checks the output. Men usually suffer from prostatic hypertrophy which causes an acute retention of urine

as the prostate is around the urethra, and the neck of the bladder, it is very easy for it to cause retention.



Fluid balance is an important thing to maintain, as if it is upset for a long period the result is usually fatal.

Blood loss

A few afferent perhaps a little muddled at the end

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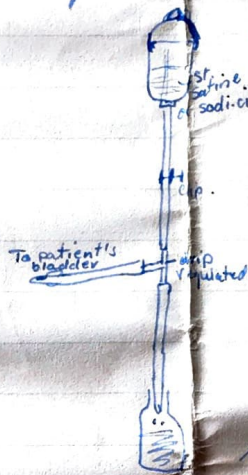
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4.

Nursing and post-operative care of retropubic prostatectomy.

Immediately the ~~post-operative~~ patient returns to the ward from theatre he is placed in a warm bed and oxygen administered if necessary. The blood pressure and pulse is taken half-hourly for the next eight hours, unless haemorrhage occurs, ^{when} it will be taken longer.

If ordered to do so by the surgeon the indwelling catheter, usually a Foley's bag, is connected to a drainage bottle or continuous washout apparatus



such as batheast's on the left.

This ensures that ~~the~~ any urine excreted is not stagnant. ^{The drip tube to be connected to the small side of the Foley's bag.}

Painkillers and analgesics are given as ordered to relieve any pain and restlessness.

When the patient becomes conscious, he is sponged and sat up in semi-Fowler's position, being made as

comfortable as possible. If the patient feels he could eat, ^{after about 8-10 hours} he is given a light tea and drinks.

A drainage tube is usually inserted at the edge of the supra-pubic incision, the dressings are inspected frequently for signs of haemorrhage; and any prolonged bloodstained discharge into the drainage bottle reported.

Some surgeons order the drip to be discontinued once the return is clear, and then the catheter to be released periodically. Bladder washouts are given with sodium citrate 3.88 or Silver Nitrate 1:4000. This is done with a bladder syringe, ~~and~~ a Y-glass connection inserted into the catheter with tubing and a syringe on one branch and a drainage tube for return on the other is one of the best methods to rinse the bladder. Any decrease in ^(the patient) the drainage from the bladder

4 (cont.) should be reported immediately, as blood clots may be obstructing the bladder or catheter. Anti-coagulant fluids/solutions will be used to syringe the tube, or if there is a clot in the bladder, the wound may need to be re-opened.

The supra-pubic drain is removed on the third day, the sutures probably removed after ~~10~~¹⁰ days, and the Foley's bag removed after 4-5 days, after which the patient should be able to void normally.

The patient should be encouraged to move his ~~th~~ legs around in the bed and do deep breathing exercises to prevent a femoral or pulmonary thrombosis or pneumonia.

He is usually out of bed as soon as possible - often a day or two later after the operation, but this depends on the surgeon and the patient.

Care should be taken, when removing the Foley's bag, that the latex bag inside is fully deflated as pulling against the prostate bed could caused bleeding to begin again.

Urinary antiseptics, such as nitrofurantoin and sulphamethoxazole are usually given to combat any possibility of infection.

End good
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