Operation.—This was done by Mr. Ganz (anaesthetic: thiopentone, cyclopropane, and curare, administered by Dr. Waters). A T-shaped incision was made over the left inguinal region—the horizontal part of the incision parallel to the inguinal ligament and the vertical part over the scrotum. The coverings of the hernia were separated and the peritoneum was opened. Fragments of yellowish inspissated material and about 4 oz. (56 g.) of golden-coloured fluid were present in the scrotal sac. The bowel was delivered from the scrotum and found to consist of a portion of the stomach, some coils of small intestine, the transverse and pelvic colons, also the descending colon, which was provided with a mesentery. There were also small pieces of food in the scrotal sac. The bowel was returned to the abdominal cavity and the skin incision prolonged upwards; a large perforation 5 cm. by 5 cm. was found on the lesser curve of the stomach. The adjacent stomach wall was extremely thin. The perforation was sutured and oversewn with a double layer of stitches and an omental graft. The wound was closed and nylon skin sutures were inserted. On the return of the patient from the theatre he was given penicillin, sulphathiazole, and continuous oxygen, but his condition deteriorated and he died the following day.

Necropsy.—The abdomen was moderately distended. On opening the peritoneum a purulent acute generalized peritonitis was found, with much pus under the right lobe of the liver and in the right paracolic gutter. Inspissated yellowish-brown faecal-looking lumps of material were scattered all over the peritoneal cavity. A large hernial sac was occupied by loops of both small and large bowel and a number of similar lumps of material as mentioned above. The orifice of the sac was three fingerbreadths and was surrounded by a firm fibrous ring. The stomach was exceedingly mobile and elongated, with a scarcely definable lesser omentum. A piece of greater omentum was sutured over and partly closed a long oval hole (8 cm.) about the centre of the lesser curve. This perforation was through a blackened gangrenous area of stomach wall, and gastric contents had exuded into the peritoneal cavity and lesser sac. Obviously necrotic stomach wall extended 4 cm. around the perforation. There was no evidence of a chronic peptic ulcer. A few small thrombosed veins were present in the affected stomach wall, but no other vascular occlusion could be found. The right and left gastric arteries were normal. No pressure ring could be discerned to suggest the site of strangulation.

Examination of the C.V.S. failed to show any source of embolism. The pathologist's comment was: "It appears that this was a Richter's hernia in which the stomach was strangulated followed by perforation."

COMMENT

The probable course of events was that a portion of the large bowel had entered the hernial sac, this being rendered easy by its mobile mesentery; the stomach had been dragged into the sac by the gastrocolic omentum, and the lesser curve had been strangulated at the neck of the sac, with subsequent perforation of the stomach wall. Though the perforation was sealed at operation it is apparent that a further area of stomach wall had necrosed and subsequently perforated, resulting in the death of the patient.

My thanks are due to Mr. J. B. Marinan, medical superintendent, for his permission to publish this case and for his interest and helpful suggestions, and to Dr. J. Ennis for his post-mortem report.

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REFERENCE

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A "Third Ureter" in Prostatectomy

Despite the sanguine views of many of my surgical confrères regarding the control of haemorrhage in the various forms of prostatectomy with bladder closure, I am dissatisfied in this respect. While not unmindful of the wholesome effects of the closed bladder after prostatectomy, sisters and house-surgeons have come to regard it with no little concern and even apprehension because of reactionary bleeding and clots lodging in the urethral drain, with distressing results. One finishes the operation with a gratifying degree of haemostasis, yet a day or two later one too often meets with disquieting reports of catheter difficulties, and evidently the staff have been somewhat anxious and harassed. The patient shares in the agitation instead of resting quietly after his ordeal. For his comfort and safe healing, and for the contentment of the surgical team, something more is needed in post-operative technique.

Catheter drainage depends on two factors—paucity of blood and plenitude of urine delivered by the ureters. Unfortunately,

owing to the shock of operation and the subnormal intake of fluids, the kidney action is all too often in abeyance. Accordingly I have tackled the problem from this direction. Since we cannot rely on adequate repression of bleeding, the logical remedy is to compensate for surgical oliguria by artificial "diuresis," using a rubber tube drip of dilute antiseptic from a bedside reservoir. This "third ureter" pleases everyone, including the patient, who prefers an automaton to intermittent service by nurses punctuating his repose for a day or so after operation and sometimes resorting to regrettably forceful syringing and sucking to clear his clogged drain.

The technique is not intended to cover slackness in surgical haemostasis but to confer on residents and nurses a feeling of calm confidence instead of anxiety that taxes their energies unduly during aftercare. I use the procedure after all three operations (Harris, Hey, or Millin), and even after resectoscopy occasionally insert a small suprapubic drain. As "third ureter" I employ a Jacques (No. 4) catheter, the orifice of which rests on the base of the bladder.

METHOD

A small Lister bougie is introduced (via the bladder-neck in Millin's operation) and pressed up against the dome of the bladder, which is incised for the tip to protrude. On this I slide the catheter by its open end after having cut off the tip. The sound is withdrawn with the catheter into the bladder and then detached. A stitch tethers the catheter to the skin, and anchorage is reinforced by "elastoplast" to prevent its being dragged out by inadvertent pulls. A glass connexion joins the outer end with light rubber tubing, which is interrupted by a glass drip on its way to a douche-can of irrigating fluid on a stand by the patient's bedside. The urethral catheter (24E) draining the bladder is suspended by a single nylon

Photograph showing the "third ureter" on the day after Millin's prostatectomy.

thread which pierces the bladder and abdominal walls about 1 in. (2.5 cm.) from the midline and is tied to a Harris metal rod. The outer end of this urethral drain is joined to a rubber tube of about the same calibre and not too readily compressible (see Figure), which ends a foot from the bottom of the bucket. Irrigation is set going at about 50 drops a minute for the first few hours, and the speed is adjusted by a screw-clamp to the safe degree of dilution. To dispel doubts arising about a clear channel, release the clamp and flush through the system.

The constancy of the irrigation is assured not only by the staff's seeing the issuing drip, but the patient or the nurse, even in the dark, can also tell by the friendly sound of the drops. This continues for about 48 hours, by which time the water is generally a pale red hue or clear. The vital injunction to the nurse is, "Never leave the drip running in unless there is a corresponding outflow." The procedure can continue with the patient sitting out of bed, or it may be interrupted while he moves about. The "third ureter" is removed on the third or fourth day. Subsequent leakage is absent or negligible.

A. WILFRID ADAMS, M.S.