separating the remainder of the urethra, having a grip on the sound, from the corpus cavernosum quite back to the triangular ligament, care being taken not to puncture the urethra; then I removed the catheter.

Removal of the corpus cavernosum.—The diseased portion of the penis having been wrapped up in a sterilised gauze and held up by means of a tissue-forceps, dissection was carried downwards separating the corpus cavernosum from the surrounding structures, the suspensory ligament being divided and the accelerator urinæ slit open up to the crura. Meanwhile, the dorsal arteries and vein divided in the course of operation were secured. Next the crura were dissected and ultimately detached by scraping out from the rami of the os pubis by means of a periosteal elevator. Leaving about half an inch of urethra the remainder was snipped off; and lastly, the severed end was slit up longitudinally and the edges were stitched with the margins of the skin at the lowermost portion on either side, about ¼ inch protruding and everted. A small drainage tube was left inserted at the lower margin of the wound, about an inch above the insertion of the newly formed urethra, and a soft rubber catheter was left in the bladder attached to a rubber tube for continual drainage into a 4-lb. wide-mouth bottle into which some carbolic lotion was poured to keep the end of the tubing always dipping in. A double spica (bandage) of the groin was applied covering the inguinal region and scrotum up to the opening of the new meatus.

After-treatment.—The patient was kept in Fowler's position for 10 days to ensure free drainage from the bladder. The gauze drainage and tubes were removed after 48 hours. The catheter was withdrawn on the 8th day when the stitches were taken out. The wound healed up by first intention everywhere except at the upper part, near the root of the penis; this also healed up after 15 days.

Note.—In this case I did not remove the testes, which were not in the least affected. Cancer of the penis is very prevalent here; I have operated on over half a dozen such cases and have removed the testes in only two.

In my former cases I did not drain the bladder continuously by a catheter, and these cases getting septic and the dressings being usually soaked due to contamination with urine, I have discarded this practice and now retain the catheter continuously, held up in position by a sticking plaster, till the stitches are removed.

As regards the urethra, I have come to the conclusion that it is best to transplant it as low down as possible with its end directed downwards. The level of the urethra, at which it should be sutured, must be at the junction of its two curves (concave and convex—from above downwards) which meet at about a point midway between the triangular ligament and the bulb.

Nearly half of my cases had strictures of the urethra; the present case came back after three months with a very narrow opening, not admitting even the point of a fine probe. I had to dilate the urethra and keep him in hospital for two weeks more. I saw him last about two months ago; he has no trouble now.

In one of my cases I had again to dissect out the urethra under chloroform and stitch up the everted edges in the manner described above. I believe if the end of the urethra be kept properly everted and a strict aseptic condition is preserved throughout, stricture is not likely.

In conclusion, I think, it is better for a beginner to use a silver catheter in place of a sound, because the former will not only be of help in the dissection of the urethra but will also afford an unmistakable proof of its passage into the bladder by the jet of urine through its opening.

(*N.B.*—The photo was taken three months after the primary operation. The catheter is seen passed into the bladder and the stillete through the severed end of the urethra.)

SOME SURGICAL CASES.

By RAI SAHIB MUKAND LAL, L.M.S.,
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Case 1.—Pirbhu, son of Nem Sukh, aged 16 years, Hindu male, received a gunshot wound of the abdomen on 15th July, 1924. The shot entered just above the left iliac crest and lodged somewhere on the anterior surface of the sacrum. The boy showed no signs of peritonitis and the superficial wound being healed, he was removed from the hospital by his parents on the 17th but was re-admitted on 25th July, 1924, at 9 P.M. with symptoms of acute obstruction. He was operated on immediately—a tag of omentum was found adherent to the parietes near the wound of entrance forming a loop through which the gut had passed and thus caused obstruction. The band was divided and the gut, being in good condition, replaced. Two wounds were observed in the gut, each closed by a small slough. The two points were invaginated and closed by purse-string sutures. No search was made for the shot as the patient was in a very critical condition and the abdomen was closed quickly. Recovery was uneventful and the patient was discharged cured on 22nd August, 1924.

Case 2.—Durbari, son of Ramjas, aged 12 years, Hindu male, admitted on 10th August, 1924, with symptoms of pain in the abdomen and fracture of the right clavicle. He said that one day before this a heavy bale of cloth fell upon him and gave rise to the trouble. The abdomen was a little rigid; temperature 100°F. pulse quick; and slight pain and difficulty in

passing urine. He was put to bed—the urine drawn off with a soft catheter and the bowels relieved with enemata. On 12th August, 1924, the rigidity and swelling of the abdomen had increased; pulse was small and thready; temperature 100.4° and very little urine could be drawn off by the catheter. Laparotomy was done, a medial incision being made below the umbilicus. The main abdominal cavity was found to be well shut off by adhesions. There was a collection of pus in the pelvis and on inspection a rupture of the bladder was discovered. Good drainage was provided and the wound left open. Recovery was steady and gradual and the patient was discharged cured on 5th October, 1924, the wound closed and healed up as in a case of suprapubic cystotomy.

Case 3.—Harpiary, wife of Surajpal, aged 35 years, Hindu female, came in with a big tumour in the abdomen of about 3 years' duration. She said it was gradually increasing in size and giving rise to pain and discomfort. The growth felt like a solid tumor, non-adherent and freely movable. On examination per vaginam the uterus was found free and the right adnexa thickened. Menstruation was occurring at usual periods but the flow was less than normal. Laparotomy was done on 17th September, 1924, with medial incision below the umbilicus. A dermoid cyst of the right ovary was found which was removed, the pedicle ligatured and sutured after invaginating the stump. A true floating right kidney was found which was lying high up in the pelvis. The left kidney was cystic. It was thought sound to leave the kidneys alone. The patient was discharged in good health on 3rd October, 1924.

Case 4.—Yadu, son of Gurdial, aged 28 years, *Chamar* male, admitted on 3rd October, 1924, with symptoms of acute obstruction of six days' duration. Laparotomy was done at once. Two bands of mesentery were found which caused the obstruction; these were cut and ligatured and the gut relieved; wound closed as usual and the patient discharged cured on 14th October, 1924, No complications occurred.

Case 5.—Moola, son of Nathu, 35 years, Brahman male, admitted on 30th August, 1924, with a history of injury due to the passing of a cart wheel over the left side of his chest where it produced an ecchymosis about 4 inches by ½ inch. Duration about 12 hours. He had difficulty in breathing—vomiting—and the urine was slightly blood-tinged. On 1st September, 1924, distention of the abdomen increased but there were no definite signs of obstruction. Laparotomy was done. First a medial incision was made and about a pint of blood evacuated from the peritoneal cavity. As the collection seemed mostly in the left flank, the first incision was closed and another made in the anterior axillary line from where more blood was evacuated. The spleen was searched for rupture and, although enlarged, no tear was discovered. The condition of the patient being serious the wound was rapidly closed without making any further search for a rupture or a tear. Both wounds healed by first intention. The patient being very weak, recovery was gradual and slow; no further accumulation of blood could be detected. There were three complications noticeable:—

1. A patch of pneumonia on the left side probably due to trauma.

2. Bleeding from the bladder which was profuse and lasted for a week—most probably due to primary injury of the bladder itself.

3. Bedsore; this was unfortunate but understandable considering the low vitality and extreme weakness of the patient after so much loss of blood.

Case 6.—Kundan, son of Hukma, 35 years, Hindu male, admitted on 9th October, 1924, in extremely weak and emaciated condition; constant pain in the abdomen which presented an enlarged spleen and two fairly big masses resembling enlarged glands in the epigastric region. The masses were slightly mobile and appeared attached to the posterior wall—non-adherent to the parietes; slight rise in evening temperature to about 99°F; duration 6 years. Considering the general condition of the patient and the size of the masses a provisional diagnosis of tubercular mesenteric glands was formed and surgical interference was thought inadvisable. The patient, due to constant pain, pressed for an operation; and a few days' rest and nourishment helped him to pick up a bit in health. Laparotomy was done on 17th October, 1924; a pararectal incision being made on the site of the tumour. The growth was found to be in the mesentery and fixed to the posterior wall. A small incision was made into the growth, and typical dermoid cyst contents came out. Removal being impossible, the peritoneal cavity was shut off and a drainage tube inserted after removing as much of the cyst contents as possible. This relieved the patient of his pain and discomfort and the cavity went on emptying itself without any further abdominal complication. Sometime later infection took place and the patient died ultimately of exhaustion.

Cases of Appendicular Abscess.

Fifteen cases of appendicular abscess have been treated since April, 1924. The ages of patients varied from 8 years to 50 years and the duration of illness from 4 to 30 days and in one case even longer than this. Thirteen cases were cured and one died due to intense toxæmia. Fœcal fistula formed in 13 cases after operation which closed up in about a week's time.

Experience shows that appendicitis is a much more common disease than it is thought to be among the Indians but it is a pity that most of the cases go undiagnosed or are delayed to such an extent as to form an abscess. Operation is resorted to only as a last measure.

Appendicitis duration.	Age.	Result.
4 months	40 years	Died.
25 days	20 ,,	Cured.
15 ,,	35 ,,	,,
15 ,,	26 ,,	,,
Chronic	50 ,,	,,
30 days	40 ,,	,,
30 ,,	35 ,,	,,
30 ,,	20 ,,	,,
7 ,,	8 ,,	,,
6 ,,	22 ,,	,,
14 ,,	15 ,,	,,
6 ,,	20 ,,	,,
5 ,,	30 ,,	,,
8 ,,	30 ,,	,,
3 months	40 ,,	,,

N.B.—A few points about these cases are:—

1. Chloroform was used as general anæsthesia.
2. Picric acid 3 per cent. solution in rectified spirit as an antiseptic for the skin has proved a very reliable agent.
3. Silk has been used for all sorts of sutures except the skin. Its sterilization is easy but requires a little care. Boil the hank for 15 minutes, store up in mercury lotion 1–1000 and boil again for half an hour before operation.
4. There have been no complications and little or no reaction after the operation.

OBSERVATIONS ON A FATAL CASE OF LIVER ABSCESS.

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MOHAMMAD KHAN, a bearer in the service of the 1|2 Bombay Pioneers, was admitted into the Cantonment Hospital, Kirkee suffering from a large and painful prominence in the right hypochondriac region.

Previous History.—The patient was addicted to alcohol for the last ten years. He contracted dysentery twice. He served in Mesopotamia for two years.

Condition on Admission.—The patient was thin, weak and wasted; the skin dry, wrinkled and atrophic; and the conjunctivæ were bile-tinged. There was dyspnœa on slight exertion. He complained of increasing debility and loss of flesh and a dull ache in the liver area at times radiating to the right shoulder. An appreciable protuberance the size of a large apple was seen immediately below the right costal arch; the skin over the tumour was œdematous and shiny.

Diagnosis.—A provisional diagnosis of liver abscess was made and was confirmed by aspiration.

Operation.—The patient was prepared for operation. A preliminary intravenous injection of 2 pints of saline with adrenalin was made. An incision 2 inches long was made over the most salient part of the tumour; after division of the superficial structures the anterior sheath of the rectus was incised, the muscle displaced internally and the peritoneal cavity opened up. A large rounded liver mass presented in the wound.

The peritoneum was packed all round with two tiers of gauze towels and an incision ¼ inch long was made in the bulging abscess. There was a sudden gush of pus which rose to a height of about 10 inches. It was noted that the wound in the abscess had increased to 1 inch; this was doubtless due to the friability of the cellular tissue combined with the great internal tension of the abscess cavity. Pressure was instantly made over the opening in order to provide for a slow and uniform flow.

At this stage the patient stopped breathing; his head was instantly lowered and artificial respiration commenced. After a lapse of 10 minutes, when no signs of recovery were perceptible, a rapid incision was made in the fourth left interspace and the heart exposed. Cardiac massage was started and ten minims of adrenalin hydrochloride injected into the cardiac muscle; instantly the heart began to beat. Artificial respiration was all the while kept on but to no avail; the heart continued to beat for 10 minutes and ceased in diastole.

POST-MORTEM.

(1) The liver was found destroyed to the extent of 2|3rds of the whole.
(2) Heart and lungs empty of blood.
(3) Intestines deeply congested.
(4) The liver was in the greater part of its extent represented by a thin capsule enclosing cellular debris.

OBSERVATIONS.

(1) The quantity of pus evacuated was extraordinary, amounting to a little over two pints.
(2) Death was due to cardiac and respiratory failure.
(3) A marked feature of the case was the early onset of intravascular thrombosis throughout the body.
(4) The emptiness of the heart and lungs may be explained by the great suction action exercised by the inferior vena cava when it was relieved of the great pressure of the abscess pressing upon it.

It may be inferred from the conditions observed in this case that—

(5) Stitching the liver to the abdominal wall in order to shut off the peritoneal cavity is not a safe procedure in cases where the abscess is large and the glandular tissue friable.
(6) In the process of aspiration that part of the needle traversing the abdominal wall is for practical purposes a fixed point, while the part in the friable liver and abscess cavity is not so fixed as one would imagine.
(7) Destruction of the major portion of the liver is not incompatible with life.

Holding these facts in mind, consider the effect on the liver occasioned by the respiratory movements.

The liver moves up and down during respiration; this motion causes the mobile portion of the needle to tear through the liver and thus favours peritoneal extravasation.