could plainly feel with the finger. The pressure of the bag entirely annihilated pulsation at the aneurysm, and he was enjoined to continue it as long as it could be borne.

Feb. 21st.—Pressure from 8 A.M. to 12; from 1 P.M. to 5 P.M.; from 5.30 to 8.30: 11 hours.

22nd.—Pressure from 6 A.M. to 12; from 1.30 P.M. to 6 P.M.; from 6.30 to 10 P.M.: 14 hours.

23rd.—Pressure from 6.30 A.M. to 12; from 1 P.M. to 5.30 P.M.; from 6 to 9.30: 13½ hours.

24th.—Pressure from 6.30 A.M. to 12.

On careful examination of the aneurysm Mr. Barwell could find no sign of improvement; indeed, the tumour appeared a little larger laterally. The groin, although the skin was quite normal, was slightly tender on pressure. The man stated that his leave only lasted up to a certain date, and he begged that an operation might be performed, so that he could get back to his ship, otherwise he would lose his appointment.

26th.—Mr. Barwell tied the superficial femoral with an ox aorta ligature at the apex of Scarpa's space, turning aside the saphenous vein and the inner edge of the sartorius; singularly little blood came from the incision. The tumour became immediately pulseless, harder, and smaller. A drainage-tube and carbolic gauze dressing were used.

27th.—A little venous oozing had come through the bandage; dressings changed; drainage-tube shortened. The man has had no pain. General temperature normal; that of both limbs equal, 98.4°.

March 3rd.—Wound healed, with exception of a passage for the drainage-tube, which was removed. The aneurysm has had no pulsation in it since the operation; it is rapidly decreasing in size, and is perfectly hard.

14th.—The patient has been begging for some days to be dismissed; to-day he was discharged. It was thought by some observers, but negatived by others, that there was some slight pulsation in the posterior tibial artery.

Remarks by Mr. BARWELL.—The treatment of aneurysm by pressure was studied and perfected at a period of surgery when the result of all operations, but, perhaps, more especially that of deligation, was singularly unfavourable, or, to say the least, uncertain. Cleanliness and purity in the treatment of wounds were but little studied; the use of silk ligatures establishing a suppurating tract communicating with an artery ulcerating in close proximity to a vein exposed to risks which at this day seem terrible to contemplate. Now, incised, clean, and non-putrefying wounds such as we make to reach the vessel heal at once, and our ligatures no longer cause suppuration. Future statistics, sufficient materials for which have not yet accumulated, will show whether deligation as now practised is or is not as safe or safer than proximal pressure. Of all forms of ligature I hold that which being flat does not divide any vascular coats to be by far the safest. Of those made from the tendon of the kangaroo's tail I have neither personal experience nor the means of collecting numbers. Of those made from the ox aorta I can, I believe, give all the cases—viz.:

Number of cases.		Number of vessels tied.
1	Innominate	1
2	Carotid alone	2
4	Carotid and subclavian	8
2	Iliac ¹	2
1	Common femoral	1
8	Superficial femoral	9
1	Brachial	1
19		24

In none of these cases did any secondary hæmorrhage occur from the place of deligation.² Mr. Thomson's patient (deligation of the innominate) died by hæmorrhage from an ulcerated opening in the subclavian; no other patient has succumbed. Thus in nineteen patients twenty-four vessels have been tied with the ox aorta ligature, and with that one exception of innominate deligation (which has never yet proved successful) no death has occurred; no amputation or other infelicitous

¹ One of these was the external. In one it was doubtful whether the external or the common iliac was tied.

² In Mr. Thomson's case of deligation of the innominate, secondary hæmorrhage arose from suppuration of the wound opening into the subclavian a considerable distance from the ligature. During my operation on the common femoral a free gush of blood, probably from an enlarged superficial circumflex, occurred as the outer part of the sheath was opened; it ceased when the ligature was tightened, but recurred in seven days, and again seven days later. It was definitively suppressed by tying the vessel above and below, dividing it between the ligatures.

result. It will be observed that among the deligations of the above table are the largest vessels that can be tied; the results may be contrasted with those of proximal pressure for popliteal aneurysm. I collected two years ago³ all published cases—viz., 148. Of these 6.8 per cent. either died or submitted to amputation. The cases collected from six hospitals showed even less favourable results—viz., 8.8 per cent. either underwent amputation or died. Moreover, of the whole number, those gathered from journals and those taken from hospital records, 49.5 per cent. failed. If we consider the confinement, the anxiety, the pain that patients thus treated undergo; if we consider the disappointment when failure is announced; and, above all, when we consider the death-rate,—we shall probably find it desirable to reconsider an idea which has taken root with us, that proximal pressure is a safer and a milder treatment than a carefully performed and scientifically conducted deligation.

WEST KENT HOSPITAL, MAIDSTONE.

RAPIDLY-GROWING SARCOMA OF THIGH; DEATH;
NECROPSY; REMARKS.

(Under the care of Mr. KNOWLES.)

ALFRED W—, aged twenty-seven, married, came to the out-patient department, on Jan. 7th, with the following history:—The patient is a farrier. A week ago he was kicked by a horse on the outer side of the left leg, a little above the knee-joint. Some swelling of the part took place at once, accompanied by a good deal of pain. He had been able to work since; the swelling, he thought, had gone down a little, but he still complained of aching pain over the site of the injury. On examining the limb, a diffused swelling occupied the lower fourth of the outer side of the left thigh; smooth, immovable, and apparently deeply seated; firm, but pitting slightly on pressure; slight ecchymosis of skin; no inflammatory appearance, and the circulation in the leg below unaffected by it. The patient was unwilling to come into the house; he attended on the 14th, and again on the 21st, when he was persuaded to come in.

On admission, Jan. 22nd, he was a pale strumous-looking man, fairly well nourished; tongue furred; bowels confined. Morning temperature 99°, evening 100°. Lung sounds normal; heart sounds normal; hepatic and splenic dulness normal; axillary and inguinal glands about the size of peas. Urine: specific gravity 1012, acid; excess of phosphates; no albumen.

Family History.—Is one of nine children. One brother had been in Guy's Hospital for pulpy disease of synovial membrane of the knee-joint, and the joint was excised. Amputation of the thigh was subsequently performed; another died in infancy of fits. The rest, with parents, are living and well. The swelling has considerably increased in size and encroaches upon the anterior surface of the thigh; the lower margin is prominent and well defined; the upper is lost in the general thickness of the thigh; distinct veins cross the tumour; skin freely movable over it; over the most prominent part there was a sense of fluctuation. The left inguinal glands enlarged to the size of an olive, but not hardened. The circumference of the left thigh at the lower third measured seventeen inches and a half; right thigh ten inches and a half. There was some oedema of the left foot and slight flexion of the leg on the thigh.

Jan. 26th.—A distinct sense of resistance felt above Poupart's ligament, with tenderness on pressure; slight oedema of the thigh; circumference 18½ in.

Feb. 2nd.—Superficial abdominal veins over the left side distinct. A well-defined mass can now be easily mapped out occupying the left iliac fossa, reaching as high as the anterior superior spine, and encroaching upon the hypogastric region. Dulness and sense of resistance felt over the back of the left lumbar region; and corresponding to the position of the left kidney is an elastic ovoid swelling, 2 in. by 1 in., somewhat painful on pressure, and with marked sense of fluctuation. Circumference of thigh 19½ in.

12th.—Patient getting thin; anæmia more marked; complaints of some difficulty in swallowing; troublesome cough, with scanty glairy expectoration, dulness over the base of the right lung, with coarse râles and bronchophony. Morning temperature 98°, evening 100.5°; pulse 80, small and weak. Some epistaxis.

19th.—Emaciation marked; cough more troublesome;

³ Encyclopædia of Surgery, Art. Aneurysm, vol. ii., p. 163.

coarse râles over both the lungs except apices; night sweats; pulse very feeble, and respiration laboured. Circumference of left thigh $19\frac{1}{2}$ in.; right thigh $10\frac{1}{2}$ in. The growth now involves the popliteal space, and extends upwards as high as the great trochanter. Some thinning of the integuments over the more prominent part of the tumour, with distinct fluctuation; no pulsation; the superficial veins of the thigh and the left side of the abdomen more engorged and increased oedema of the leg and thigh; no increase of size or hardness of the inguinal glands; in the abdomen the area of dulness and resistance extended as high as the umbilicus, and a little beyond the median line, it being a well-defined, smooth, hard mass; increased resistance felt over back of left lumbar region, and an increase of the swelling occupying the position of the left kidney to three inches and a half by two inches (the long axis parallel to spine); urine gave the same reactions as before.

26th.—Patient extremely emaciated; bedsores over right hip and knee-joint; he takes very little nourishment on account of great difficulty in swallowing; death occurred the following day.

Post-mortem (Feb. 28th).—Rigor mortis present. The left thigh looked about double the size of the right, there being a difference of $9\frac{1}{4}$ in. in the circumference. An incision from the great trochanter to the external condyle of the femur, and carried down to the bone, revealed the following: The whole of the soft parts of the thigh were infiltrated with a pulpy reddish-brown granular-looking mass, which could be easily scraped away with the finger, not encapsuled and apparently limited below by the attachment of the fascia to the bony prominences around the knee-joint. There was another form of growth which presented a different naked-eye appearance; it was limited in extent, and arranged in lobules of various sizes, greyish-white in colour, and of firm consistence, exactly resembling a section of the brain. Several small blood-cysts permeated the growth. The periosteum was smooth, and as far as the finger could ascertain the bone was not affected. An incision along the anterior surface of the thigh showed the same characters. On opening the abdomen, the peritoneum and sigmoid flexure of the colon were seen to be displaced upwards by a large mass, which occupied the whole of the left iliac fossa; this mass was encapsuled and of varying consistence, it spread over the posterior abdominal wall, and reached as high as the pelvis of the kidney; that portion between the kidney and posterior abdominal wall, and which corresponded to the external swelling, was semi-fluid in consistence. A section through the mass above Poupart's ligament presented the same characters as the primary growth. Two encapsuled tumours, each the size of an orange, were situated on the under surface of the diaphragm, one between the layers of omentum on the greater curvature of the stomach and two others near the crest of the ilium on the right side. Liver: Enlarged (weight sixty ounces), pale, capsule tense, parenchyma soft and easily broke down under the finger, several greyish-white spots about the size of a pin's head scattered throughout the organ. Pancreas: Entirely filled with a firm yellowish-white mass, the gland felt like a piece of indiarubber. Kidneys: Pale, otherwise normal. Spleen: Capsule lax, pulp very soft, of a bluish colour on section, turning a brick-red colour on exposure to air. Lungs: Some pleuritic adhesions over both; a few ounces of fluid in the right pleura; both lungs thickly studded with firm, greyish-white deposits, varying in size from a pea to a bean; both bases cedematous. Anterior and posterior mediastina contained numerous encapsuled masses of the soft pulpy form, and the bronchial glands around the roots of the lungs were involved in a mass similar in appearance to that deposited in the lungs and pancreas. Under the microscope it was seen to be a small round-celled sarcoma. The secondary deposits showed a few elongated spindle-shaped cells, but beyond these all the specimens examined presented great uniformity of appearance.

Remarks by Mr. KNOWLES.—This case offers a good illustration of the high degree of malignancy of round-celled sarcoma. The rapidity and extent of its growth, terminating fatally within two months, show the necessity of making an early diagnosis in cases where surgical interference is contemplated. When first seen it was very difficult to say whether the swelling was due to an extravasation of blood or a new growth. It did not appear to be connected with the bone, although from its position the question of sarcoma was entertained from the first. A fortnight later, when admitted into the house, there could

be no doubt as to its malignant nature; and four days after admission, and before permission to amputate the limb had been obtained, the deposit was detected above Poupart's ligament. It would seem that an extravasation of blood took place at the time of the injury, and that this, instead of being followed by resolution or suppuration, as might have been expected in a strumous diathesis, assumed malignant characters. The growth was twice aspirated with a fine needle, and each time a little blood was withdrawn, but no sarcomatous cells were detected under the microscope.

LIVERPOOL ROYAL INFIRMARY.

CASES OF ABDOMINAL SECTION; CONVALESCENT; REMARKS.

(Under the care of Dr. WALLACE.)

FOR the notes of these cases, to which reference was made in our last issue, we are indebted to Mr. Laimbeer.

CASE 1. *Salpingitis*.—J. S—, aged twenty-eight, has been ill four years. She was admitted to hospital in July, 1884, and has been under treatment since. She suffers from pains in the pelvis, and is unable to work, lately even to move in bed. Operated on, March 4th, 1885. Both tubes were removed, but both ovaries left; the right tube was enlarged and thickened; both were congested. The patient made an uninterrupted recovery, and is now able to walk well.

CASE 2. *Hysterectomy, &c.; Multiple Fibroids*.—C. C. A—, aged forty, a widow, has been under treatment since July, 1882, for fibroids of the uterus; she is getting worse, and cannot work on account of pain. Operated on, March 10th, 1885. Abdominal section and removal of pedunculated fibroid; also of the uterus, with a mass of intramural fibroids. The cervix formed the stump, and was brought to the abdominal wall in the median line. The serre-nœud was used. The wire of the serre-nœud cut through on April 11th, the patient doing well.

CASE 3. *Adherent Dermoid Cyst*.—L. McR—, aged twenty-two, noticed a swelling of the abdomen at Christmas last. Operated on, March 25th; abdominal section. The cyst was universally adherent. It was cleared of its contents (hair and cheesy matter resembling pus), and a drainage-tube left in. The cyst has now contracted to a small sinus, about two inches and a half long. The patient's general health is good.

CASE 4. *Ovarian Cystoma*.—E. McK—, aged twenty-eight, noticed an abdominal swelling six months ago. Operated on, March 26th. A multilocular ovarian cyst of the right side was removed. The patient's recovery was slightly retarded by the formation of an abscess in the abdominal wall. Is now quite well.

CASE 5. *Disease of Oviducts and Ovaries (?)*.—M. J. B—, aged thirty-one, has been under treatment for more than twelve months with very severe pain and reflex ovarian symptoms, the patient occasionally losing all self-control, and threatening to commit suicide; profuse menorrhagia.—Nov. 14th, 1884: Abdominal section. The ovaries contained small cysts. The cysts were pricked; the Fallopian tubes were stilettoed. Uninterrupted recovery. No improvement after this operation.—April 2nd, 1885: Abdominal section done again. Both ovaries and tubes taken away. The patient made an uninterrupted recovery. She feels quite well. She menstruated for forty-eight hours three days after the operation.

Remarks by Dr. WALLACE.—Cases 1 and 5 were both subjects of intense neuroses, the former being able to grow a phantom tumour under inspection of abdomen, for which there was nothing to account except salpingitis; while the latter was twice operated upon by abdominal section, for such intense pain in lower abdomen as drove her frantic and made her threaten suicide. Both tubes were dilated and filled with serous fluid; the ovaries were apparently healthy. On the first operation a piece was cut out of the right oviduct; the left burst on attempting to detach it from adhesion to the left pelvic wall. No relief followed. Ovaries and tubes were next removed. Her neuroses have vanished. Why excision of the oviducts in the first case gave complete relief, the ovaries being left behind, while in the latter case opening the oviducts, taking off pressure of distension and draining—all true surgical procedures—gave no relief, I am not prepared to venture an opinion. The mental impression in neurosed patients is sometimes so great that opening the abdomen and doing nothing except