made, was very painful. Measurement across the base of the thorax, keeping over the tenth rib, gave thirty-one inches; and two inches and a half below the false rib and over the most prominent part of the swelling it gave thirty-two inches. Skin cool; temperature under the tongue 96° 2'. Pulse small, without resistance, and infrequent. Heart's action very weak; beat of apex not visible nor felt. No cough. No abnormal sound in chest. Breathing weak; respiration 22. He does not sleep at night on account of the pain in the side. Bowels costive; tongue dryish; appetite bad. Urine scanty, light-brown, and slightly acid; density 1025; slight cloudy deposit by heat and nitric acid; no bile pigment. Ordered a mild saline and carminative aperient; an ounce of brandy, the yolk of two eggs, and half an ounce of white sugar, in a pint of milk—half to be taken morning and evening; a diet of rice and mutton broth; also fomentations to the side, followed by the application of collodion.

24th.—Improvement in general condition. The pulse is better, more resistant; bowels freely open; appetite improved; tongue moist. Pulse 90; respiration 34; temperature in armpit 97° 2', in rectum 100°. The breathing is somewhat frequent; no cough; no dulness on percussion; no abnormal sound. He complains of considerable pain in the hepatic region; the swelling has increased and is more globular; no fluctuation. Measurement: Along tenth rib, 34 inches; two inches and a half below false ribs, 34 inches.

Dr. Cruickshank and Dr. Simpson, who kindly saw the patient in consultation, were with me of opinion that the swelling was due either to the presence of a deep abscess or to considerable congestion proceeding to inflammatory action. The man's general condition was not favourable. His habit of body, caused by his forced sedentary life, would alone have made the prognosis doubtful; the heart was evidently very seriously affected, and had almost lost its propulsive power. Relying on the favourable report given by Professor Maclean, of Netley, on aspiratory punctures of the liver, we agreed to operate, believing that, even should we fail to give relief, still we possibly could do our patient no harm. With No. 2 trocar of Dr. Potain's aspirator, a puncture was accordingly made in the most prominent part of the swelling—i. e., three finger-breadths and a half below the right false ribs, and four finger-breadths from the mesial line. About an ounce of black blood was withdrawn, and, under the microscope, we observed mixed with it a few pus-globules.

25th.—Morning: Passed a good night; pulse fair; less pain on percussion. Temperature in rectum 102°; pulse 92; respiration 26; urine slightly albuminous.

26th.—Evening: Temperature, rectal, 100; pulse 90; respiration 26. Continue stimulant draught. He had passed a good day.

29th.—Did not sleep last night; complains of much pain in hepatic region. Pulse firm, more resistant, 90; rectal temperature 100°, in axilla 98°. Treatment: Application of eight small caustic issues to the side; mild saline aperient, with carminative in the morning; continue brandy-and-eggs; two grains of opium at night.

July 1st.—For the last two days he has felt less pain and sleeps well; the appetite is pretty fair; oedema is making its appearance in different parts of the body, specially in the left leg and arm. Continue brandy, eggs, and same diet.

2nd.—Liver decreasing rapidly in size; measurement along tenth rib 29 in.; two inches and a half below, 30 in.; general anasarca more marked. Pulse very small, infrequent, regular; urine scanty, high-coloured, albuminous; temperature in rectum 100°, in axilla 97°. Continue eggs, brandy, and a stimulant draught to be given in small doses frequently. Diet: sago, conjee, and milk.

11th.—Passed a restless night; anasarca increasing; serous effusion in pleural and abdominal cavities. Pulse filiform; temperature in axilla 97°, in rectum 100°. Intellect clear. Gradually sank, and died at 3.30 P.M.

Autopsy, fifteen hours after death (assisted by Dr. Simpson, civil surgeon, Poona).—Head not opened.—Chest: The walls of the thorax cedematous. On opening the cavity of the chest the lungs were found small, somewhat retracted, healthy, with but slight congestion of inferior margin; about half a pint of fluid serum, with fat-globules swimming over it, existed on both sides; old adhesions were found existing between the lungs and the walls of the chest, some so very strong and resistant that they had to be di-

vided with the knife; weight of lungs, two pounds and a half. The pericardium was adhering to the heart intimately, and in some parts was dense, hard, almost cartilaginous. The muscles of the heart had in many places entirely disappeared through fatty degeneration; they were pale everywhere, and presented the appearance of a pathological specimen that had remained for years immersed in spirit. Valve dotted with fat. Weight of heart, with pericardium, seven ounces.—Abdomen: The stomach and bowels were much inflated; the peritoneum was slightly injected in places, more so along the greater curve of the stomach; no effused lymph, but a certain quantity of serous transparent fluid escaped when the abdominal walls were open. The liver was almost entirely hidden under the false rib; the left lobe was small and flat, the right was flattened, presenting a thin border extending irregularly below the false ribs for about an inch. The liver was of bright-yellow colour, hard, and leaving a fatty layer on the knife; it seemed *ex sanguine*; the external covering was in places thickened, and here and there it had contracted intimate adhesions with the diaphragm. Through the cellular and intervening tissues the puncture could not be traced; on the liver itself a small punctured cicatrix was found, corresponding in a perpendicular line with the external cicatrix, but several inches higher up, and just on the margin of the false rib. Neither here nor anywhere else could any traces of recent inflammation be found. Weight of liver three pounds and a half. The gall-bladder was elongated, hard, and contained about an ounce of very thick, dark bile, looking very much like pitch in colour and consistency. The kidneys weighed four ounces; there existed some slight injection of the pyramids; the cortical substance was healthy, except towards the inferior extremity, where hard patches were found surrounded by a fatty unvascular tissue. The muscles of the abdomen were pale, flabby, streaked with fat, and in some places the muscular tissue itself had undergone fatty degeneration.

Remarks.—The case is interesting, as showing how very harmless puncture of the liver really is, and it exhibits in a remarkable manner the influence of local bleeding on a liver gorged with blood. Although the symptoms indicated in some degree the existence of an abscess, none was found, but, from the presence of pus-globules in the blood withdrawn, it is evident that before long such a result would have occurred. *The liver was punctured three and a half fingers' breadth—say two inches—below the false ribs, and at the post-mortem examination the liver was found so much reduced in size that its flattened edge hardly extended half an inch below the ribs; the cicatrix of the puncture was seen hidden by the walls of the thorax, whilst the symptoms observed during life, as well as what the autopsy revealed, proves clearly how rapidly the congested and inflamed liver recovered its normal condition after the puncture was made.* The amount of blood abstracted was small—not more than an ounce. It seems as if the withdrawal of this small quantity of blood were sufficient to assist the overloaded hepatic vessels, and gave the required impetus to the languid circulation of that organ. Death was due to anasarca, the result of extensive fatty degeneration of the heart and muscular tissues generally, and it was in no respect hastened by the operation, which may have had, even in this fatal case, rather a beneficial effect than otherwise.

REPORT OF A SUCCESSFUL CASE OF THE APPLICATION OF ESMARCH'S BLOODLESS SYSTEM TO THE TREATMENT OF ANEURISM.

BY STAFF-SURGEON WALTER REID, M.D., R.N.,
ROYAL NAVAL HOSPITAL, PLYMOUTH.

(Communicated by the DIRECTOR-GENERAL OF THE MEDICAL DEPARTMENT
OF THE NAVY.)

J. F.—, aged thirty-seven, chief boatswain's mate, was received from H.M.S. *Arab* on August 10th, with a left popliteal aneurism, of the sacculated variety. The tumour had attained a considerable size with strong pulsation. It was caused by a strain incurred three weeks previously while lifting sails.

Strict rest, with farinaceous diet, were first enjoined, and on the 19th treatment by genuflexion was commenced. On the 23rd this was abandoned, owing to the severe pain and œdema of the leg which it caused. On the 26th two Carte's compressors were applied, one to the main trunk at the pelvic brim, the other at the apex of Scarpa's space. After four hours' continuous compression, pulsation in the aneurism ceased, but shortly afterwards returned. Numerous attempts have since been made by various forms of compression to arrive at a cure, but without success. Pulsation continued, and the swelling did not sensibly diminish. The aneurism was apparently being supplied to a certain extent by the collateral circulation.

On the 10th of September, having performed a protracted operation for necrosis of the femur in another patient, during which the limb was kept bloodless for an hour and ten minutes without producing any subsequent injury or inconvenience to the circulation, it occurred to me that Esmarch's system was well worthy of trial in the case of aneurism, as more likely than any other plan, to produce complete stagnation of the contents of the sac, and so lead to their coagulation.

Accordingly I removed the compressing apparatus which was in use that day, and left the patient alone till the morrow, when, at 10.20 A.M., I bandaged the limb with the elastic roller, from the toes upwards to the junction of the middle with the lower third of the thigh. It was applied lightly over the aneurism, so as not to compress it. The elastic tubing was then wound round the limb over the highest turn of the bandage, which was now removed. The entire circulation below the tubing was found to be arrested. The limb had assumed a death-like pallor, and gradually lost temperature. The aneurism was of its usual size, and pulseless.

After fifty minutes, the patient complaining of severe pain above the seat of constriction, a Carte's compressor was adjusted to the main trunk at the pelvic brim, and the elastic tubing removed. On raising this compressor a few minutes afterwards, I could detect no pulsation in the aneurism; several small vessels were beating strongly round the joint, and the collateral circulation appeared to be established. The compressor was readjusted and left in charge of the patient, who had already been well accustomed to its use. He was ordered to apply the compression lightly and in an intermittent manner, so as not to distress himself. He continued doing this more or less until the evening of the following day, when the apparatus was removed. The tumour had been frequently examined by myself and others, and was always found to be pulseless and sensibly diminishing in bulk.

Sept. 15th.—There has been no pulsation, and the swelling is still getting smaller, so that I regard the aneurism as practically cured. There has been no constitutional disturbance, and the only complaint which I have been able to extract from the patient is a feeling of numbness in the three outer toes, with occasional darting pains up the outer side of the leg. The femoral artery can be felt beating as far as the seat of constriction (where the tubing had been placed), but not beyond. There are several small arteries pulsating round the joint, one particularly to the inner side of the patella. The numbness and pains complained of are to-day nearly gone.

Remarks.—The simplicity and apparent safety of this mode of treating aneurisms, as well as the rapid success which followed its application in the case which I have recorded, will doubtless commend it to many as at least worthy of trial.

I have been particular in giving the details of treatment, as any one of them may have been essential to success. The explanation appears to be—the coagulation of blood in the sac, consequent upon its complete stagnation. The aneurism itself probably remained full, but the entire circulation in the parts was arrested, and it is possible that the loss of temperature and that particular condition of the tissues closely allied to death, may have had some effect in the formation of the coagulum. How long it may be necessary to keep the limb bloodless in order to produce this result is a question which must be decided by future practice.

My reason for compressing the main trunk for some time afterwards was that the force of the blood-current might have broken down and washed away the newly-formed clot

before it had time to become tough and solid, and the sac to contract over it.

The experience of surgeons will no doubt suggest improvements in this plan of treating this disease. It may be even necessary in certain cases to inject fluids into the sac to promote coagulation while the limb is kept bloodless. This, however, is a mere suggestion, and I must content myself for the present with indicating and illustrating by a practical example what, so far as I know, is a new treatment of aneurism, as well as an instance of the great service which Esmarch's system seems destined to render to surgery.

A Mirror

OF

HOSPITAL PRACTICE,

BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

MIDDLESEX HOSPITAL.

MELANOTIC SARCOMA OF FEMORAL GLANDS, SECONDARY TO TUMOUR OVER THE HEEL; SARCOMATA IN SPLEEN AND ILIAC GLANDS.

(Under the care of Mr. DE MORGAN.)

THE most remarkable circumstance in the following case was the presence of all the symptoms of brain tumour—headache, vomiting, and double neuro-retinitis, exceedingly well marked and persisting to the end. In no case could the presence of a brain tumour have been diagnosed with more confidence than in this one, and yet at the autopsy no sign whatever of any coarse brain disease was found.

The clinical notes are from the pen of Dr. Lyell, surgical registrar.

E. W.—, aged thirty-six, admitted on Jan. 30th, 1875, with a swelling in the right groin, preventing locomotion. Her statement was to the effect that, for eighteen months before admission, she had noticed the steady growth of an almost painless tumour below the right groin, which gave her a minimum of discomfort, till, by pressure on the veins of the limb, causing œdema, and by its size, it prevented her getting about; that, during Easter of 1874, at a metropolitan hospital, a "lump," like a black wart, of the size of a half-crown, was excised from the calf of the right leg; and that this existed some months before that in the groin, although the latter was evident at the date of the operation. Her former health had been fairly good, and there was no hereditary history of any import.

Visual examination reveals a large protuberant mass situated immediately below the fold of the right groin (which is deepened in contrast), occupying the entire anterior aspect of the upper fourth of the right thigh, extending inwards to the edge of the adductors and outwards to the anterior superior iliac spine. It is hard, nodulated, and of equal consistence. She can bear free manipulation of the tumour, but complains of shooting pains in the tumour itself and down the same leg. The tumour is freely movable on the tissues beneath, and the skin surmounting it is natural in appearance, non-adherent, and slightly œdematous. The rest of the limb is markedly œdematous. Above Poupart's ligament, and apparently detached from the mass below, dipping deeply into the brim of the pelvis, is a similar hard enlargement, the upper border of which is circumscribed and rounded, whilst the lower and deeper cannot be localised. Just below the swelling of the right calf is the cicatrix of the operation, and below its site a pea-like melanotic cutaneous nodule.

Feb. 16th.—Since admission, the prevailing and most prominent symptoms have been obstinate vomiting and headache, defying the remedies applied. With the exception of occasional remissions of varying intervals, she has been persistently sick after her food. The remission may