

two granulating surfaces have united. A triangular surface is left covered with granulations between the edges of these fringes of skin.—30th: Two skin-grafts applied to the granulating surface. The testicles are now gradually coming down into the newly formed scrotum.—Sept. 14th: The wound is healed with the exception of a square half-inch.—30th: The patient was discharged from hospital, and shortly afterwards returned to duty.

At the present time (August, 1886) the man is in his usual health and performing his duties as a soldier. The urine is found on examination to be free from albumen.

Wellington Barracks, S.W.

## PUERPERAL APOPLEXY IN A YOUNG WOMAN;

LIFE MAINTAINED FOR FOURTEEN HOURS BY ARTIFICIAL RESPIRATION.

By N. WHITELAW BOURNS, M.D.

MRS. E—, aged thirty, engaged me to attend her in her first confinement, which she expected about the end of March. She was a rather thin, anæmic-looking woman, and a great sufferer from chronic rheumatic arthritis, causing distortion of the finger joints. She informed me that the articular trouble had been much better during her pregnancy; she otherwise enjoyed fairly good health. At 3.30 A.M. on February 18th I was called, and told by the husband, a medical man, that she appeared in her usual health up to midnight, when she retired to her bedroom, having entertained some friends during the evening. Her husband joined her about 1 o'clock, and found her complaining of pain in the epigastrium, for which she took a little bicarbonate of soda. The bowels had acted before going to bed, and urine had been passed freely. About 1.30 A.M. she complained of constant pain over the abdomen, and was given a grain of opium in a pill; but the pain continuing, a vaginal examination was made by her husband, and as he found the os externum dilated to the size of a shilling, he thought it well to send for the doctor and nurse. The patient was then begging for chloroform to relieve the continuous abdominal pain. I reached the room at 3.45 A.M., and found her quite unconscious, lying on her back, rather high in bed, with her left hand apparently supporting her head. On examination I found the os slightly dilated, and with some difficulty made out a vertex presentation. There was no vaginal discharge. Pulse about 90, and regular; respirations natural; pupils equal, not contracted, reacting to light. I carefully watched her for some little time, and saw that she continued in the same state, with occasional uterine expulsive pains, during which she held her breath, and moved her legs up and down in bed. As the urine voided before going to bed had been thrown away, I passed a catheter, and found the bladder empty; but upon withdrawing the instrument, a couple of drops of deeply blood-stained fluid escaped from its eye. Feeling alarmed at the condition of the patient, I sent for Dr. Clement Godson, and shortly afterwards found the pulse much slower—not more than 60 to the minute—and rather full; pupils equal, slightly dilated, and not reacting to light. No appearance of paralysis of the muscles of the face. The breathing for a few respirations was inclined to be stertorous, and at 6.15 A.M. she gave a couple of sighing inspirations, and then stopped breathing. No pulse at the wrist. The heart could be felt over the præcordial region, but the action was very feeble. I at once set up artificial respiration, and the heart soon began to improve, so that when Dr. Godson arrived, soon after 7 o'clock, he was able to count the pulse in the radial, and made it 96 to the minute. We discontinued the artificial respiration, but within two minutes the patient became markedly cyanosed and the pulse almost imperceptible. Artificial respiration was again started; hypodermic injections of ether and enema of brandy given, and the galvanic battery freely used. The foetal heart was listened for, but could not be heard. Dr. Godson passed a catheter and drew off about three drachms of dark blood-coloured fluid; he found the os dilated to the size of a two-shilling piece. Enemata of peptonised beef-tea was given, and the respiration kept up by a staff of neighbouring medical men, who kindly lent their services. No change

took place in the condition of the patient up to 2.30 P.M., when we had the advantage of a consultation with Drs. Playfair and Godson, and the diagnosis of cerebral hæmorrhage was maintained. However, artificial respiration was continued until past 8 o'clock, when reluctantly we had to admit that the case was hopeless, and on discontinuing our efforts life was soon extinct.

For the following post-mortem report I am indebted to Mr. Colby of St. Bartholomew's Hospital. Examination nineteen hours after death:—Rigor mortis well marked. Heart: Some excess of pericardial fluid, a patch of recent lymph as big as a shilling over the front of the ventricles near the apex. No valvular disease; no atheroma of the aorta. Lungs: Edema of both lower lobes. Liver: Capsule stripped off easily in the neighbourhood of the right kidney. Kidneys: Some irregularity and thinning of the cortex. Surface smooth. Capsule of right came off very easily, and the organ was engorged. Ureters free. Bladder empty. Brain: Under the meninges and on the surface of the left hemisphere was a clot as large as a crown piece, covering the upper end of the fissure of Rolando; on the parietal region of the right hemisphere a similar but smaller clot. In the left hemisphere was a clot as big as a duck's egg, continuous with that on the surface, and lying outside the external capsule, but compressing both the basal ganglia and the convolutions. The right hæmorrhage was superficial.

There are, I think, several points of interest in connexion with the case. Had parturition actually set in before the hæmorrhage occurred? Again, were the uterine efforts in any way owing to the cerebral clot? I am inclined to think that, considering the aspect of the case before the loss of consciousness, and the condition of the os, the first step in the case was commencing parturition. Next as to the diagnosis; this was admitted by all to be a point of great difficulty, as the age and appearance of the patient, the onset of the attack, the absence of any paralysis, facial or ocular, and the fact of the catheter drawing off only a little sanguineous fluid, all point to other than cerebral causes. Lastly, the length of time life was maintained by artificial respiration is, I think, very interesting, if not unique, as there cannot be the least doubt that any interruption of artificial respiration between 6.15 A.M. and a few minutes past 8 P.M. must have resulted in immediate death. It would also be interesting to know how long life would have been maintained if sufficient relays of medical men could have been procured to continue artificial respiration. In conclusion, I may say that both Dr. Playfair and Dr. Clement Godson look upon the case as a most unusual one, and well worthy of being placed on record.

West Brompton.

## A CASE OF OVARIOTOMY, FOLLOWED BY SECONDARY INTRA-PERITONEAL HÆMORRHAGE; RE- OPENING OF THE ABDOMEN; RECOVERY.<sup>1</sup>

By HENRY W. FREEMAN, F.R.C.S.I., L.R.C.P. LOND.,  
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LIZZIE D—, aged twenty-two, a fine, tall, young, single woman, the eighth child of a family of nine, was admitted into the Royal United Hospital, Bath, on July 21st, 1886, with an abdominal tumour. She had menstruated painfully for five years, the menses having ceased four months before admission. She stated that a swelling on the right side of her abdomen had been noticed for fifteen or sixteen months, and it had gone on increasing solidly towards the left side, accompanied by some oedema of the legs. Her general appearance, however, was that of a healthy woman, and, but for the mechanical weight in carrying about the tumour, she had little to complain of, and had done her work as a domestic servant up to the day of her admission.

On examination, the abdomen was found to be occupied by a smooth, hard, semi-elastic growth, a little uneven at its upper margin, and extending from the left side of the pelvis to four inches above the umbilicus; dull all over on per-

<sup>1</sup> Read at the Bath and Bristol Branch of the British Medical Association, Dec. 9th, 1886.

cussion, with no definite fluctuation anywhere. The flanks were resonant, and the fingers could be carried between the tumour and the pubic rim. The abdominal circumference measured thirty-five inches and a half. Her excretory organs were healthy. The cervix uteri was pointed and pushed backward in the direction of Douglas's pouch; the uterus was fixed, the sound passing in to the extent of an inch and a half only. A rough, harsh friction sound was heard over the right lobe of the liver, and an extensive adhesion was diagnosed.

On Aug. 19th the patient was operated upon, under ether and antiseptically, and a large single solid cystoma was seen on opening the abdomen. An extensive adhesion was found over the right lobe of the liver, which was broken down and ligatured with chromic silk. The tumour was solid and unyielding, and before it could be raised from its bed free incisions were made and quantities of semi-solid gelatinous matter got away. Other small adhesions were treated in the usual way. The pedicle which involved the *left* ovary, *not* the right, was broad, thin, and so short that it was strained upon when the solid growth was moved in the abdomen. The pedicle was transixed with the Staffordshire knot, clamped, and subsequently cut off with a bistoury. The peritoneal toilet was carried out by the aid of a Leiter's irrigator with warm water, and much sponging for cleaning out the abdomen was consequently avoided. An eight-inch Keith's glass drainage tube was inserted through the lower angle of the wound down into Douglas's pouch, and guarded antiseptically. Chromic acid sutures for the abdominal parietes were used as usual, and the patient was put to bed in an apparently satisfactory condition, with but little shock or collapse. Four hours afterwards, on visiting my patient, although the nurse reported favourably of her, a glance on removing the dark window-blind told me all was not right: the face was pale, pulse rapid, and the surface of the body was getting cold and clammy. On examining the tube and dressings no discharge was seen, but on carrying the rubber tube of a suction syringe through the glass tube straight into Douglas's pouch an ounce and a half of pure venous blood was brought up. Dr. Cave (the resident physician) quickly joining me, it took but a few seconds and a whiff of ether and chloroform to re-open the abdomen, when, to my dismay, we found the intestines were swimming in blood, and the whole abdomen filled with fluid and clot. Brandy was quickly injected into the rectum, the cavity rapidly cleared out, the pedicle seized and inspected, and the tied adhesions examined closely, but we could not make out the bleeding spot. When the stump of the pedicle was raised no venous oozing could be detected; when it was dropped back again into the abdomen oozing took place again and again into Douglas's pouch, but the blood came *not* from the stump. The pedicle was found securely ligatured; nothing came from it. On carrying a light into the pelvis, blood was seen to ooze from a small valvular rent in that portion of the left broad ligament between the stump and fundus of the uterus, but only when the pedicle was in a dependent condition and lying in the pelvis; it stopped at once as soon as it was raised and held up. Evidently a rent had been made in the pampiniform plexus of the left broad ligament, and it was at last picked up, transixed in two places, and tied in halves. The abdomen was again minutely cleaned out with the irrigator, the wound closed, and the tube replaced; but the patient was pulseless and apparently moribund. A large wash-hand basinful of blood and clot had been cleared out of the abdomen. Iced champagne and peptonised milk with brandy, a teaspoonful every twenty minutes by the mouth, and nutrient enemata and suppositories by the rectum, were ordered, and in two hours, although blanched and restless, the pulse was felt beating feebly 168 to the minute, and she asked for sips of hot tea. Three hours after this vomiting set in, with thirst of course, but no headache or gaping. She dozed at short intervals during the night, and secreted four ounces of urine. Dr. Goodridge saw her with me at noon. Pulse 150; temperature normal. Strong doses of digitalis were advised. Retching, with constant vomiting, compelled us to abandon drugs by the mouth for a few hours; but on the morning of the second day, the pulse having gradually fallen during the night to 120, we gave her small doses of calomel and extract of opium by the mouth frequently, which brought away some bilious stools on the evening of the same day; she passed flatus freely, and expressed herself as feeling more comfortable. She took and retained her nourishment now. The rectum was washed out periodically to avoid tenesmus and septicæmic

absorption. Her pulse fell on the fifth day to 108, the temperature not exceeding 100°; the glass drainage tube was emptied of about an ounce and a half of pure sweet serum, and on the sixth day it was withdrawn and the wound closed with stout silver wire. The parietal sutures were removed on the tenth day, except the silver one at the site of drainage, and she was then practically convalescent, with a pulse of 100, and temperature normal. Only one parietal suture suppurred, and that was due to the China twist not being prepared. She subsequently did well, sat up at the end of the month, and left the hospital five weeks after the operation. She menstruated six weeks after the operation and monthly since, without discomfort. The tumour weighed 10 lb.

*Remarks.*—It perplexed me very much at the time to explain how that small rent took place in the left broad ligament which caused all this hæmorrhage; and I believe when the solid weighty tumour was lifted out of its bed, the pedicle being thin, short, broad, and ribbon-like in structure, it was pulled upon and split before the ligature was applied. The clamp succeeded the ligature, it will be remembered, as previous clamping might have caused the rupture when the ligature knot was being tied. The ligature stump when dropped down bled, and when held up stopped, giving us the impression it was the cut pedicle that bled; but it was *not* so. A vein of the left ovarian or pampiniform plexus had been opened obliquely, and Rivington in the *Journal of Anatomy* has shown that these veins of the broad ligament communicate freely with the uterine plexuses and sometimes have imperfect valves; but on the *left* side it is commonly absent, the valve being found in the left renal vein, about a quarter of an inch from the entrance of the former vessel; and further, Bland Sutton, in demonstrating the remains of the meso-nephros or Wolffian body, in his splendid work on the *Evolution of Pathology*, points out, that this curious plexus of veins called the pampiniform plexus, are, in reality, the dilated tortuous venules, which originally administered to that very curious structure the paroöphoron. The bleeding was entirely venous, but the coagula were fragmentary, small, and thin, contrasting markedly with uterine clot in parturition. How far the interference with perfect coagulation is due to a closed serous cavity or to the lymph spaces of the peritoneum with their open stomata I am not prepared to say. We closely examined the right ovary that remained, and it was found shrivelled up, and atrophied like a piece of old wash leather; yet the patient has menstruated freely several times since the operation, which leads one to consider how far the Fallopian tube plays an active part in this phenomena.

Now, as to the character of this semi-solid tumour. Bland Sutton has so recently arranged his facts that it is difficult to dispute the origin of parenchymatous ovarian cysts from corpora lutea, and he describes them as arising in this way from infancy up to the end of sexual life, and ripe follicles are frequently present in the ovary before birth. In vol. xxxvi. of the *Pathological Society's Transactions* he describes the transverse section of a mare's ovary, showing a corpus luteum, the interior having broken down into two small cysts, and this explains the origin of many of those cysts so common in the ovaries of full-grown mares. It is a curious fact, and I have seen it often during the past ten years, that nearly all mares, after they attain the age of ten or twelve years, have cysts present in their ovaries, which probably arise from corpora lutea. You may demonstrate this statement more commonly even in cows than horses, and the primitive condition in the former animals of the ducts of Gaertner, the analogue of the vas deferens in the male, explains the frequent presence of cysts about the upper portion of the vagina. I have a strong impression the colloid tumour of this woman arose from a corpus luteum. Again, what becomes of the ligatured pedicle after the operation? It becomes encysted, we admit; lymph or clot forms on its surface; but how is it nourished, or does it slough? I shall risk the view that the everted peritoneum *above* the ligature bends downward, and joins the nearest point *below* the ligature, and so maintains its vitality. In Sir Spencer Wells's statistics we find that in his first 500 operations there were *no* deaths from hæmorrhage, but twenty from exhaustion, while in the second series of 105 there were only eight from exhaustion and two from hæmorrhage; but he adds the probability that some of the first series of deaths were also partly due to bleeding, but the fact was not established by examination. Keith's mortality from shock

and hæmorrhage was 3·6 per cent. Lawson Tait does not mention any deaths from hæmorrhage in his later statistics.

I wish to draw attention towards the use of the glass drainage tube in all abdominal sections, and I am aware that in the hands of Mr. Lawson Tait drainage is never used if the abdomen can be properly cleansed and dried. Keith still places great reliance on his Koeberlé's drainage tubes. Spencer Wells doubts their success, although I am under the impression he drained the peritoneal cavity in his earlier operations. Mr. Knowsley Thornton considers them only necessary in 2 per cent. of cases done antiseptically, and 10 to 15 per cent. of cases without antiseptics. Quite recently, however, Mr. Lawson Tait has pointed out how remarkable is the influence of the drainage tube in arresting hæmorrhage into the peritoneal cavity: for if the cavity is kept dry by frequent withdrawal of the blood, the bleeding, as from torn pelvic adhesions, will stop; but if drainage is not kept up the bleeding will probably prove fatal. This is a strong point in favour of the tube. In my own cases of laparotomy I have been struck with the little irritation produced by the glass tube in the abdomen. It has been kept it in for eighteen days in an hysterectomy and for a week in an ovariectomy; but care must be taken that the end drops easily into the bottom of Douglas's pouch, and is not displaced above the promontory of the sacrum. In the case recorded the glass drainage tube saved the patient, by immediately confirming the suspicion of secondary hæmorrhage, and minutes meant in her case her existence. In complicated cases with purulent cysts the utility of the thing is admitted; but for the beginner in abdominal surgery, we would venture to say, Use Keith's drainage tubes, and always do so if in doubt. It will be a safeguard to your patient and a comfort to you for the first hours after the operation, as it brings the doings of the peritoneal cavity within touch of your special senses.

Bath.

## Clinical Notes:

### MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

#### CASE OF CHRONIC INTERSTITIAL NEPHRITIS.<sup>1</sup>

By C. H. ROBINSON, F.R.C.S.I.,

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THE lady, aged fifty-five, whose case is described in the following brief notes, was under my observation for years, the signs of the malady from which she suffered commencing with hypertrophy of the heart, followed by albuminuric retinitis, epistaxis, and finally cerebral hæmorrhage, which terminated fatally last November. In the autumn of 1885 the sight of her eyes became considerably affected, and on examination by the ophthalmoscope hæmorrhagic retinitis of both eyes was found to be present. At this time the urine passed was copious in quantity, pale in colour, of specific gravity 1006, and on one occasion only was I able to detect any albumen, and then only the merest trace. At various intervals it was carefully examined, with a negative result. Under appropriate treatment (which included the administration of the perchloride of mercury in combination with the iodide of potassium, the bowels being kept open by occasional doses of Friedrichshall water and a spare dietary enforced), the sight after several weeks was restored, and the specific gravity of the urine gradually became normal. In January, 1886, I was sent for in consequence of a severe attack of epistaxis, which was arrested by plugging the anterior nares and applying an ice-bag over the cardiac region. In October of the same year I attended her for uræmic vomiting, and in the following month she called at my house about three o'clock, and when leaving complained of a numbness in the right leg. She wished to proceed into town, where she had some business to transact; but I persuaded her to go into the waiting-room, and in a couple of minutes there was complete anæsthesia as high as the knee. She remarked that

she had dreaded this, and expected to be paralysed. I had to leave her for a few minutes, and then found the right arm paralysed as well as the leg, also the face on the same side. Her articulation now became impaired, but she could put out her tongue, which was directed to the right side. I had her removed to her own house, where, on arrival, although unable to speak, she appeared to be in a semi-conscious state. About seven o'clock the same evening she was perfectly unconscious; the pupils contracted; pulse 78; temperature 95°; respiration fairly quiet, occasionally stertorous. During the night she exhibited Cheyne-Stokes' respiration; the pulse gradually got higher; the temperature went up to 100°, then to 102°; while the face and neck were greatly congested. The eyes, which were now dilated, had that peculiar fixed stare so characteristic in serious attacks of cerebral hæmorrhage. The right arm was very rigid, but gradually relaxed. Death took place about thirteen hours after the first seizure, being preceded by a violent trembling.

Some, perhaps, might regard the fatal result in this case as due to uræmia, in which occasionally hemiplegia has been shown to occur;<sup>2</sup> but the absence of convulsions and the rapid increase in the temperature would, I believe, show such an opinion to be erroneous. Albuminuria may exist, it is well known, without nephritis, but the converse of this is comparatively rare. Where no trace of albumen can be detected in the urine, but the general symptoms point to interstitial nephritis being present, the test recommended by Feltz and Ritter, as modified by Prof. Bouchard, it is said will decide the matter.<sup>3</sup> The urine of a healthy person when introduced into the circulation of the rabbit by injection into the veins of the ear kills the animal in the proportion of 50 grammes per kilogramme of weight. But that of albuminuric subjects can be tolerated in much larger doses, and in one case mentioned by M. Dieulafoy a rabbit of two kilogrammes, for which a toxic dose of healthy urine would be 100 grammes, exhibited no discomfort until 260 had been injected, and even then recovered.

Dublin.

#### NOTES ON A CASE OF HÆMOPERICARDIUM FROM RUPTURED CORONARY ARTERY.

By J. W. BATTERHAM, M.B. LOND., F.R.C.S.

ON March 9th, 1887, I was called to a lady who had died suddenly. The following was the only history obtainable from the friends of the deceased. She was seventy-five years old, and had suffered for "some time" from "slight fits," in which she "struggled" and lost consciousness for a few minutes. These fits were usually preceded by sickness. About noon on the day of her death she complained of pain in the left mammary region, and took a Gregory's powder. She then had lunch, which consisted only of a little beef-tea. Her servant coming into the room about an hour after lunch found her sitting in a chair dead. The deceased's face was pallid. She appeared to have vomited just before death, as some brownish fluid containing gritty particles (apparently the beef-tea and Gregory's powder) was seen staining her chin and the front of her dress.

The necropsy, performed twenty-four hours after death, showed the heart enveloped in about four or five ounces of dark clot. There was no rupture of the heart or great vessels. On the posterior surface of the heart was a slight subpericardial ecchymosis, covering an area about the size of half-a-crown, situated on the interventricular groove about an inch from the apex of the heart. A fine aperture with ragged edges was discovered in the pericardium covering the centre of this ecchymosis. On vertical section through this aperture, a few small clots were seen in the muscular substance of the hypertrophied left ventricle. The largest was about the size of a small pea, and was situated immediately beneath the minute aperture in the pericardium above described. The coronary arteries were tortuous and thickened, their coats containing numerous calcareous plates. On dissecting out these vessels, the left, after running down the anterior interventricular groove and turning round the apex to the back of the heart, was found to terminate in two main offsets, which surrounded the area of hæmorrhage. Two small twigs were traced into the clots,

<sup>1</sup> Read before the Medical Section of the Academy of Medicine in Ireland.

<sup>2</sup> Revue de Médecine, Nov. 1885.

THE LANCET, 1887, p. 703.