PART IV.

MEDICAL MISCELLANY.

Reports, Transactions, and Scientific Intelligence.

PROCEEDINGS OF THE PATHOLOGICAL SOCIETY OF DUBLIN.

President—E. H. BENNETT, M.D.

Secretary—JOHN WILLIAM MOORE, M.D.

Duro-arachnitis.—DR. FINNY said: Cases of duro-arachnitis are sufficiently rare to justify me in laying before the Society the accompanying specimens of the brain and portion of the skull.

In the vast majority of these cases, rare though they be, the inflammation of the arachnoid lining the dura mater (supposing such exists as a separate membrane) originates in injury to the skull, or is induced by extension of inflammation from the internal ear. The case I lay before you seems to be an exception in that there is no history of any injury; there is no evidence of disease of the external, middle, or internal ear, and although in one spot—the size of a fourpenny-piece—the dura mater over the mastoid cells is velvety, red, and thick, no communication can be detected with the cells, nor, in the opinion of the President and other members of the Society who have examined the bone, are the mastoid cells diseased.

A point of clinical import is the fact that the symptoms due to irritation and inflammatory changes in the nervous centres were chiefly developed on the *same* side of the body as the lesion in the brain.

B. P., aged thirty-nine, unmarried, a printer, engaged on one of the daily papers in the city, was admitted to the City of Dublin Hospital under my care on the evening of December 21, 1879, in a semi-comatose and delirious condition.

His history, as derived from his friends, was to the effect that his health was always good up to about five days ago, when he complained of headache and pain in the right ear, and that a discharge from it took place in the evening. From that time the pain in the head increased, and on the day before admission he had vomiting, rambling in his talk, and stiffness in his legs; so that he lay in bed, and in attempting to

turn him his friends found considerable difficulty owing to the rigidity of the extremities. There was some squinting noticed also.

On admission the following were the prominent features :—The patient had constant raving and talking about his business, but he was by no means violent. He lay on his left side with his knees drawn up, and at first he attempted very often to leave his bed, though easily restrained. Over the right side there was a great deal of rigidity, more so than on the left, and the right pupil was more contracted and not so sensitive to light as the left; there was also convergent strabismus of the left eye. There was absence of hyperæsthesia of the face at this time. The patient had a haggard look, and face and body were greatly emaciated. Vomiting, which was reported to have been persistent from the 20th, had ceased the day of his admission, and did not return. Evening, pulse 130, and temp. 104·6°. In this condition he remained till next day, when, towards the afternoon, he became quiet, hardly speaking at all, and he sank into a comatose condition. The pulse rose to 140, but the temperature was two degrees lower than the day before. The urine was removed by a catheter; the bowels were confined—the abdomen being retracted. In the evening, while comatose, reflex cutaneous excitability of both sides of the face was noted, the slightest touch of a feather producing spasms of the facial muscles; about midnight it was most marked in the right side. Without convulsions or other change he sank and died at 2 30 a.m. of 23rd.

Post mortem examination of the brain was made twelve hours after death.

No discharge could be detected at the right meatus auditorius, nor any fracture of the bones of the head. On removing the calvarium, the dura mater, which was healthy, seemed fuller over the right hemisphere, and on opening it the cause of the fulness was seen to be an extensive uniform purulent effusion of a greenish yellow colour, quite concealing the convolutions. The inner surface of the dura mater was smooth and free from vascularity, except over the upper surface of the petrous and mastoid portions of the temporal bone. Here a spot the size of a threepenny-piece was noticed to be red, velvety, and raised. On stripping it off the bone its continuity was intact, no laceration or hole being noticed in it, and it was not particularly adherent to the subjacent bone—which latter, to all appearance, seemed healthy. Sections of the temporal bone were made, but no trace of disease could be detected. The only other point connected with the examination of the skull was that the posterior clinoid processes of the sphenoid seemed easily lacerated, as well as being red and spongy, and the dura mater over them more vascular than elsewhere. The pus was limited by the falx cerebri to the right side of the brain, and did not extend backwards beyond the fissure of Rolando. There was no pus under the arachnoid covering the brain,

nor in the ventricles ; the surface of the convolutions underlying the pus were, however, congested, and seemed somewhat softer than on the other side. There were no abscesses in any part of the encephalon.

The points which to me seem to be of pathological interest are the following :—

1. The existence of purulent inflammation of the arachnoid and dura mater without diseased bones or injury to the scalp, causing separation of the dura from the bone.

2. The strict limitation of the effusion to one hemisphere by the falx cerebri.

3. The local chief pressure upon, and irritation of, the brain was at the right side, and the evidences of such brain affection were seen mostly on the right side of the body, face, arm, and leg.—*January 10, 1880.*

Myo-fibroma of the Uterus.—MR. STOKES said : On the 29th of last month a female was admitted into the Richmond Hospital, under me, suffering from an enormous abdominal enlargement, the commencement of which, she stated, she observed twelve years ago. She was the mother of three children, and stated that she observed the enlargement shortly after the birth of the last one. It slowly increased in size until it reached the enormous dimensions it had on her admission to hospital. It did not until quite recently interfere with her general health, or indeed much with her comfort. About four weeks previous to her admission to hospital she commenced to suffer from a sudden increase in the size of it, and this was accompanied with a great deal of sickness of the stomach—in fact, she had the greatest difficulty in keeping anything on her stomach except fluids. She had lived on beef-tea, chicken-broth, and things of that sort, for four or five weeks previous to her admission to hospital—not having been able to bear any solid food whatever. She was a healthy-looking woman, and well nourished. On examining her abdomen we found an enormous enlargement caused by the tumour. It was irregular on the surface, being more or less lobulated. There were one or two indistinct points of fluctuation. There was, of course, uniform dulness over the whole surface of the tumour, anteriorly and laterally. The two or three points at which I thought I perceived fluctuation made me come to the opinion that we had to deal with some form of cystic disease ; but from the history of the case, and from the appearance of the tumour, I was inclined to think—and this view was shared in by my colleagues, especially after an examination made with the sound—that the tumour was not merely uterine, but was probably associated with ovarian disease—that we had, in other words, mixed uterine and ovarian disease to deal with. I asked Dr. Kidd, the Consulting Obstetric Surgeon, to make an examination of the case for me. I was not able to meet him in consultation on the day he called at the hospital, but he

wrote me a note, an extract from which I will read :—"The surface of the tumour is very irregular. There are patches of indistinct fluctuation. On the right side there is one large, round, semi-elastic mass, and into the interior of this the sound passes $4\frac{1}{2}$ inches. The uterus is so much dragged up out of the pelvis that I could scarcely reach to it—in fact, could not get at it till I passed two fingers into the vagina. The os is thrown very much forward, and resting on the brim of the pelvis. The tumour has been of very slow growth. My impression is that the mass on the right side of the abdomen is an enlarged uterus, and the remainder is either a mass of fibro-cystic tumours of the uterus, or a multilocular tumour of the ovary closely connected with the uterus." His opinion in the main coincided with the one I formed as regards the nature of the case. Having regard to the great anxiety of the patient to obtain relief, and encouraged also by the success that attended the removal of a somewhat similar tumour by my colleague, Dr. Stoker, last year—and also my colleagues, including Dr. Kidd, being of opinion that it was not only justifiable but right to give her a chance of living by removing the enormous growth—I determined to perform the operation. I was further encouraged by the fact that the patient was a person of very quiet, placid mind, and hopeful disposition. She was most anxious to have the operation performed, and on several occasions pressed me to undertake it. I accordingly did so. On making an incision at the point where I thought the fluctuation was most distinct, I plunged the trocar into the tumour, but there was no evacuation of any fluid. There was a thick, unctuous fluid, which would not pass through the tube. I made another incision at a situation where I had also felt fluctuation, but without being able to extract any fluid there either. I then passed my finger into the tumour, but found that it was hopeless to expect to evacuate fluid from it, as it was mainly solid, and gave the sensation as if you passed your finger into a mass of honeycomb. I enlarged the wound to a very great extent up towards the sternum, in order to give room to extract the tumour, which, after a great deal of difficulty, I succeeded in doing. At the moment that the tumour was exposed to view, very alarming symptoms supervened. The patient became pulseless, her lips grew white, her eyes turned up, and respiration ceased. For a few minutes I was in dread that she had expired on the table. However, our Resident Surgeon, Mr. Lentaigue, gave her a subcutaneous injection of ether, which had the effect of rousing her, and I was enabled to complete the operation. The pedicle, which consisted of the neck of the uterus, was transfixed with ligatures, and securely fastened; and in addition, in order to make assurance doubly sure, I passed in a large, strong acupressure pin, and encircled it with a carbolised silk ligature, and then removed the tumour. I endeavoured to enucleate it by removing the capsule, but finding that I could only do so to a certain extent,

abandoned the attempt. The remaining steps of the operation it is unnecessary to detail.

Half an hour after the operation her temperature was 99·6°, her respiration 26, and her pulse 116, so that there had been a very fair reaction. She expressed herself quite free from pain and suffering, and very hopeful as to the result. At half-past four in the afternoon she was in very much the same condition, the only thing she complained of being thirst, which was relieved by placing small pieces of ice in her mouth. Her pulse and temperature were then normal; and on the morning after, her temperature was still normal, but her pulse was very fast and very weak, her skin moist, and her thirst very great. At nine o'clock the following day her pulse had become so very weak that it could not be counted; her temperature was 98·4°; and she was then taking ice, milk and brandy, and latterly beef-tea. I saw her in consultation with my colleagues, Dr. Stoker and Dr. Thomson, and found her temperature under the axilla unchanged, but she was almost pulseless at the wrist, and her extremities were beginning to get very cold. Her intellect was perfectly clear, and she stated that she was not in any suffering. At Dr. Stoker's suggestion we commenced the administration of nutritive enemata, consisting of yolks of eggs, Hoffmann's anodyne, and tincture of digitalis. The first was not retained, but the second was, and with very good results, as I was then enabled to take the pulse, which I had not previously been able to do. The nutritive enemata were given every third hour; the fourth and fifth were not retained. She also got beef-jelly and brandy by the mouth. At ten o'clock I saw her, and found that her pulse had again become almost imperceptible. I gave her another enema, but without producing very much change. At that hour she got much weaker, and syncope began to come on. For this she got a drachm of ether hypodermically. At twelve o'clock she got very much weaker, and soon after passed away quietly.

On making a *post mortem* examination next morning, I found that the upper portion of the wound had almost completely closed. On examining the abdomen I found no trace of hæmorrhage. There was a little oozing of blood on the surface of the stump, which had coagulated, but not more than about a drachm of blood. Therefore her sinking was not from any internal hæmorrhage, but must be put down simply to exhaustion and shock.

In reference to the pathology of the tumour, Mr. Abraham, Curator of the Museum of the Royal College of Surgeons, has given the following note:—

"The tumour measures in its greatest diameter nearly 13 inches, and in thickness about 6 inches. In shape it is sub-discoid, but the presence of two large lobar protuberances in its upper border gives

it a somewhat cordate appearance. In some other parts also an attempt at lobation is visible, and under some of these projections the consistence is softer, probably from the presence of adjacent cysts. Under one or two of the smaller lobes the consistence is particularly dense and firm. The new growth is apparently from the anterior wall of the uterus, of which a great part of the fundus and body must have been involved. In its removal a considerable portion of the broad ligaments, together with the ovaries and Fallopian tubes, have been taken away—a course which must have been necessary from the fact that these ligaments form a great part of the tumour's covering. These parts all show more or less hypertrophy. The ovaries are enlarged, and altered in shape—the one measuring five centimetres in length, three in breadth, and two in thickness; the other, seven centimetres in length, four in breadth, and one in thickness. They present numerous cysts in their substance, as do their round ligaments. The neighbouring structures, such as the organ of Rosenmüller, also appear to be diseased. The section through the tumour has a marbled and mottled appearance—solid, and made up of nodules of different consistence. The whole is very vascular. In some places towards the periphery the degeneration seems to have so far extended as to give rise to the formation of cysts, containing a thick glairy fluid, but not in very great amount. Some which exuded was found coagulated the next day."

Report of the Committee of Reference.—The Committee have examined Mr. Abraham's microscopical sections submitted to the Society by Mr. Stokes, as well as a series of mountings prepared by themselves. They are unanimously of opinion that there are no appearances to warrant the idea that the tumour was in any part carcinomatous. They regard the tumour as a typical myo-fibroma of the uterus.—*January 17, 1880.*

Melanotic Sarcoma of the Orbit.—DR. E. H. BENNETT said: This tumour was taken from a healthy man, a native of the county of Kerry, who was sent to me by Dr. Maybury, of Kenmare. The tumour grew on his right orbit within the lower lid, occupying the inferior sinus of the conjunctiva, while the mass grew forward in front of the cornea, but without involving it. It was so placed, however, as to intercept the range of vision, but by looking sideways one could see that the cornea was perfectly sound. It projected into the orbit, and its black colour was clearly seen through the clear conjunctiva, so that its nature was as easily recognised. The motions of the globe were unaffected by it, except so far as they were checked by its pressure against the globe. Many of the movements could be performed without difficulty. The man's sight was perfectly good; he had fine clear eyes, very dark in colour, but although the globe was somewhat displaced his sight was perfectly unaffected. He had neither double vision nor any derangement

of vision. He had evidently a melanotic tumour of the orbit, closely related to the globe; and, as everyone knows who is familiar with the surgery of the organ, such tumours are prone to spring from the choroid coat of the eye, and, escaping externally by absorption of the sclerotic, to project into the orbit or against the lids. I made a most careful examination of the globe with the ophthalmoscope, but was not very successful. However, Mr. Storey examined the man with the aid of suitable light in the ophthalmoscope room of St. Mark's Hospital. He agreed with me that the tumour probably grew from the choroid, but could not satisfy himself that there was any intraocular growth. An attempt had been made to remove the tumour, and it was removed in part about six months ago. The man first noticed it in May last, and some time about August following, when it was very small—not larger than a hazel nut—it was partially removed in Cork. It recurred, and the conjunctiva of the upper lid, which was entirely remote from the tumour and the subconjunctival tissue, became melanotic. Whether this was congenital or not I cannot say. The subconjunctival mucous tissue was distinctly mottled black, and looked as if, in slipping over the tumour, as the upper lid did, it had become contaminated—just as in malignant growth of the liver, when a hepatic tumour presses against the peritoneum, we see tubercles of infection on the opposing surface. Whether this was congenital or acquired melanosis of the subconjunctival tissue I cannot say. My great anxiety was that the tumour might turn out not to be connected with the globe. We operated, leaving this an open question. I found that it was intimately connected with the palpebral fasciæ and the tarsal cartilages. On dissecting with care I approached the globe and came on a distinct rounded facet, where the globe rested against it, and I was able to disconnect it without any wounding of the sclerotic. The sclerotic, when the tumour was removed, appeared perfectly clean and white. The wound healed immediately, and we sent him to the country a few days afterwards without his having sustained any injury to his vision or disturbance of the globe, except that the operation narrowed the gape of the eyelids. The tumour, examined microscopically, proved to be a melanotic sarcoma with spindle cells, the black deposit being extremely abundant, necessitating a very thin section in order to see its details. At the surface of the auditory meatus there was a slightly enlarged lymphatic gland. The exposed surface of the tumour was slightly ulcerated, and immediately after the removal of the tumour the glandular enlargement in front of the ear disappeared, and we could detect no other contamination.—*January 17, 1880.*

Myoma of the Prostate Gland: Pyelonephritis Parasitica (Klebs).—DR. FOOT said: The specimens which he was about to lay before the Society were not so remarkable for their rarity as for their typical character.

They illustrate the effects of chronic prostatic disease upon the bladder, ureters, and kidneys. He had here a very marked example of the so-called hypertrophy of the prostate, with a thickened and fasciculated bladder, dilated ureters, and sacculated kidneys studded with abscesses. The result of repeated examinations of similar hypertrophies of the prostate has been to establish the fact that they are most frequently myomata, and this specimen accords so closely with the descriptions of prostatic myoma given by Virchow and Billroth that he had not thought it necessary to examine it microscopically. The principal tumour occupies the favourite situation of prostatic myoma—the postero-superior portion of the gland—because hereabouts the muscular tissue is most abundant, descending from the apex of the trigone to the neck of the bladder. The kidneys are each double the usual size, weighing each 10 oz. The surface, on removal of the capsule, was frayed and pitted with superficial abscesses—in fact, was studded with purulent foci. The cortical substance was also studded with abscesses with ragged edges and irregular outlines—in all probability the result of inflammation excited by bacteria which wandered from the pelvis of the kidney into the uriniferous tubules. Such a cause of pyelonephritis is fully recognised by Klebs, who calls it *P. parasitica*. It must remain uncertain how much of these renal changes was due also to the effects of the retention and ammoniacal decomposition of the urine. The man from whom these parts were taken was fifty-eight years of age, and had long suffered from urinary disease. Twelve years before his death he had learned to pass a catheter for himself, and continued to do so till the instrument broke. He sought admission to hospital for dysuria and rectal uneasiness. The urine during his stay in hospital was that of chronic cystitis—alkaline, offensive, ropy, and loaded with mucus and phosphates. For thirty-six hours before his death—which took place quietly, as if from exhaustion—he was somnolent. The preparation shows the cavity of a large abscess between the bladder and the rectum. As to the nature of the tumour, some one might think that it was of a papillomatous nature. In the last session or the one before it, he showed a remarkable example of papilloma engaging the orifice of the urethra and the bladder, and, on section, it had the appearance of a brush; and it had been also attended (as they often are) with great hæmorrhage. As to the adenomatous element in the tumour, there was always some adenoma mixed with myomata in this region—not here the main constituent of the growth.—*January 31, 1880.*

Scirrhus of the Pylorus, with Secondary Carcinoma of the Peritoneum and of the Pleura.—DR. DUFFEY said: The specimens exhibited were removed yesterday from the body of a woman, aged sixty, who died early the same day. She was admitted into Mercer's Hospital under the care of

one of my colleagues on the 8th of January, and only came under my notice two days before her death. She was a tall and gaunt emaciated woman, of a sallow colour and cachectic appearance and wrinkled face. It was stated that she was not averse to a glass of whisky every day, especially early in the morning. She was a dealer by occupation, and came from Arklow. I was unable to ascertain any particulars as to her previous medical history, or the duration of her fatal illness. Her chief symptom while under my observation was persistent vomiting. This vomiting, as I saw it on two or three occasions, seemed to occur without effort, or without any previous nausea, and succeeded the ingestion of any substance, solid or liquid, into the stomach. She suffered also from intense thirst, and had a dry, brown-red tongue. There was marked constipation and extreme debility. She complained of but little pain in the abdomen, even on pressure. It was very easily ascertained that there was a large amount of fluid in the peritoneal cavity. Palpation gave a sensation of diffused and irregular hardness all over the distended abdomen, especially in its lower third; but there was no distinct evidence of any tumour, except in the right iliac region, where the swelling had more the character of a fæcal tumour, being in the course of the colon, and of a softer, more doughy feel than elsewhere. There were no enlarged veins on the abdomen, no hardness about the umbilicus, and the glands in the groin were but slightly perceptible. The heart was normal, the respiration easy and tranquil, and there was no cough or dyspnoea. The urine was non-albuminous and clear, and there was no jaundice or oedema of any portion of the body. The diagnosis at which I arrived was that the case was one of visceral cancer with fæcal accumulation. On *post mortem* examination the body was found to be extremely emaciated and of an earthy yellowish colour. There was a considerable quantity of serous straw-coloured fluid in the abdomen. The inner surface of the parietal peritoneum was thickened and studded over with numerous hard, grayish-yellow, tubercular-like nodules, varying in size from a millet seed to that of a pea. These were scattered all over the peritoneum in every direction. The small intestines, collected into a mass, between the umbilicus and the pubes, were firmly adherent to each other and covered with miliary deposits, so as to give the sensation of a hard irregular tumour. There was abundance of lymph also on the portions of the intestines which adjoined the peritoneum. The large intestine in the right iliac region was filled with softened fæces, which gave the doughy feel noticed during life to the touch. The omentum was shrivelled up into a hard thickened mass, and was firmly adherent to the stomach. The latter viscus was not much altered in its anatomical position; its mucous membrane bore evidence of chronic congestion, and was, in some places, highly vascular. The pylorus was invaded by a large, thick, and gristly mass of scirrhus. The surface of

the gall-bladder was spotted over with similar miliary nodules to those already described. The liver, however, appeared, strange to say, to have escaped any malignant deposit. The hepatic ligaments were thickly studded with the same deposit, and the spleen, which was adherent to the stomach, was coated in the same way. The mesenteric glands, as far as I was able to see, were not enlarged, but I cannot ascertain that directly yet. The kidneys appeared to be perfectly healthy externally, and so was the uterus, which, however, had the shrivelled atrophic appearance usual in old women. Passing to the thorax, there was double hydrothorax, the emphysematous lungs floating in a large quantity of clear straw-coloured fluid. The pleura covering the lower lobes of both lungs was studded with growths similar to those in the peritoneum. On both the abdominal and the pleural surfaces of the diaphragm there was distinct evidence of these growths also. The right side of the pleura costalis was free from them, while the left side was quite roughened to the touch by the number of these deposits upon it. In the posterior mediastinum was a large piece of thickened tissue with these growths upon it also. The heart was perfectly healthy, as far as could be seen by the naked eye. The primary disease in the case, I take it, was in the stomach—scirrhus of the pylorus, as in the majority of cases, being the form of the disease affecting that organ. The liver, contrary to the general rule, appeared to have escaped, for in about one-fourth of the total number of cases of cancer of the stomach the liver also is affected. Nor was there any cancer of the uterus. The carcinoma of the peritoneum, as in the majority of cases, was secondary to the primary disease of the stomach—the disease obtaining access to the peritoneum through the lymphatics. In the same way the complication of cancerous pleurisy may be explained by the disease passing, probably, through the canaliculi in the diaphragm (described by Recklinghausen) into the pleural cavity.^a The hydrothorax may be ascribed rather to the cachectic condition of the patient (the hydrops cachecticus) than to the pleuritic affection. The age and sex of the patient are in accord with former observations—as to the greater frequency of peritoneal cancer in women than in men, and as to the decade in which the disease is most prevalent. Bauer states that between the ages of fifty and sixty cancer of the peritoneum occurs more commonly in females than in males; and out of 40 cases collected by Petrina^b 11 were patients of between fifty and sixty years of age, and of these 7 were females and 4 were males.—*February 7, 1880.*

^a Cf. Ziemssen's Cyclopædia. Vol. IV., p. 598.

^b Loc. cit. Vol. IV., p. 337.

TRANSACTIONS OF THE ULSTER MEDICAL SOCIETY.

SESSION 1879-80.

President—PROFESSOR DILL, M.D.

Hon. Secretary—WILLIAM WHITLA, M.D.

November, 1879.

PROFESSOR DILL, President, in the Chair.

Notes upon a Few Cases of Hernia. By J. WALTON BROWNE, B.A., M.D.,
M.R.C.S., Eng.; Surgeon, Belfast Royal Hospital; Surgeon, Belfast
Ophthalmic Hospital.

SINCE my appointment as surgeon to the Belfast Royal Hospital in 1876, I have operated upon, in private and hospital practice, twenty cases of strangulated hernia—viz., twelve cases inguinal, seven femoral, and one umbilical. Of my twenty cases eleven died. Upon looking over my case-book, I find six cases were almost moribund before being brought under notice.

I may just mention that from the 1st January, 1850, to the 31st December, 1875, ninety-nine cases of strangulated hernia were operated upon at the Belfast Royal Hospital, of which thirty-six died. My patients ranged in age from ten weeks to eighty-four years.

In the after-treatment of all the cases, with the exception of those which were moribund, opium and ice-poultices, or ice-bags, were used.

Immediately after the operation the patient is at once put upon opium, dose being moderated according to the age; and ice-poultices—i.e., ice broken up into small fragments, and mixed with a quantity of sawdust—or ice-bags, which I prefer, are placed over the abdomen, a piece of lint intervening between the bag and skin. At the same time the patient is kept upon spoon diet. The ice and opium are continued as long as any pain or tenderness upon pressure over the abdomen is experienced. I have great faith in the application of ice to the abdomen where symptoms of peritonitis threaten after operations for hernia, and recently I have used ice-bags in all cases of injuries of abdomen in the early stages, at once discontinuing their use should any symptoms of depression occur. A practical paper, "On the Local Use of Cold in Abdominal Inflammations," appeared in *The Lancet*, February 26, 1876,

by Dr. Eade, of Norfolk, in which he advocates the local use of cold in preference to warm applications in nearly all cases of inflammation of the abdomen.

Dr. Eade considers "the *modus operandi* is to abstract heat, to benumb exalted sensibility, and to contract the dilated and semi-paralysed vessels; and its especial effects have seemed to be to diminish abdominal distension, to control the volvulous writhings of the bowels, and thereby to relieve both pain and tenderness."

At the end of five days I like to get the patient's bowels to act, and with that view cease the use of opium, provided the pulse and temperature are not much above normal. As a rule, with the cessation of the opium the bowels act spontaneously, and if they do not do so in twelve hours, I order an enema of turpentine and castor-oil, as, no doubt, frequently the safety of the patient depends upon procuring evacuations from the bowels. To my mind it is very important that we should obtain an evacuation of the contents of the intestines in all cases of hernia after a certain period, but especially in elderly and fat people should we be doubly anxious, as Mr. Jordan, of Birmingham, in *The British Medical Journal*, April 26, 1879, states that the cause of death after hernia operations is frequently due to fatty change and failure of the muscular wall of the gut. Mr. Jordan shows that, upon *post mortem* examination of some of his fatal cases of hernia, the intestinal canal was singularly and uniformly yellow, and everywhere enormously distended; and the muscular wall, when microscopically examined, was seen to have undergone fatty degeneration.

In some cases where the patient suffered much from flatulent distension about the third day, in addition to using turpentine stupes to the abdomen, a rectal tube has been passed with much benefit. When chloroform has been the anæsthetic used, troublesome symptoms after the operation are nausea and vomiting. I have always prescribed, with much benefit, a cup of very strong tea—a practice advocated by Dr. G. H. B. Macleod, in *The British Medical Journal*, July 8, 1876. In all my cases the sac was opened, with the exception of one case of femoral hernia, to be alluded to further on.

When the strangulation is of several days' duration—and it is in such cases, as a rule, we are called upon to operate in hospital practice—I like to open the sac and see the contents, also where the symptoms of strangulation from the very first have been very acute. Although the stricture is frequently external to the sac, yet the neck of the sac itself may form the stricture. Adventitious bands may remain inside; and as length of time is not an absolute criterion as to the state of the contents of the sac, but rather the tightness with which the bowel has been caught, you cannot tell with certainty when to open the sac, and when to leave it unopened. In all cases of femoral hernia I would be inclined

to open the sac, as it is in this form of hernia we so frequently meet with omental sacs, strangulating the bowel.

The late Mr. Maunder, in a clinical lecture at the London Hospital (*Lancet*, January 13, 1877), states that surgeons are pretty well agreed that it is immaterial whether the sac be opened or not in femoral hernia.

In the division of the seat of stricture in all the cases, with the exception of one, where I accidentally wounded the intestine, I used the hernia knife introduced into practice by Dr. Alexander Patterson, Surgeon to the Western Infirmary, Glasgow, and described by him in *The Glasgow Medical Journal*, February, 1873. Dr. Patterson, in describing his knife, says:—"It differs from Sir A. Cooper's simply in the blunt, pointed part of the knife having a quarter turn given to it, so that the flattened point passes more readily under the stricture, while its breadth flattens and pushes the gut aside as the cutting part of the blade follows."

A knife somewhat upon the same principle is the one invented by Dr. B. W. Richardson, of the Adelaide Hospital, Dublin, and described by him in *The Dublin Quarterly Journal*, November, 1869.

I have found Dr. Patterson's knife especially serviceable in operating upon femoral hernia, where the stricture is very tight; the point of the instrument being slightly wedge-shaped, is readily insinuated under the stricture. It will also be found useful in cases of inguinal hernia, where the stricture is deeply seated, and a large mass of intestine is prolapsed, for it is in such cases that we dread wounding the intestine. Here, by placing the forefinger at the point of stricture, the intestines are pushed aside, and the knife can be slipped along the palmar surface of the finger, and the stricture divided; the blade being inserted with the cutting edge upwards, there is no risk of the bowel being wounded. After division of the stricture I invariably pull down into the wound a portion of bowel from the abdomen, in order to see that the intestine is perfectly free, and have a view of the strictured portion. When about to return the bowel into the abdominal cavity, no great pressure should be used; and in three of my cases the hernia knife was re-introduced to enlarge the opening. It is always pleasant to feel the intestine, as it were, glide away. After all the intestine has left the sac, I follow the practice inculcated by my distinguished teacher, Professor Gordon, Belfast—"Never push the finger up into the abdominal cavity; satisfy yourself that the canal is clear, that is quite sufficient."

You will remember that I told you six cases almost moribund had been operated upon. You may reasonably ask me—Why operate in such cases, and thus increase your percentage of deaths? My answer is that I have seen cases operated upon which were deemed quite hopeless, nevertheless they recovered; and I well remember a woman, aged seventy-six, being admitted into the hospital in 1868, when I was House

Surgeon, suffering from a strangulated femoral hernia of seven days' duration; she was very weak—in fact, almost pulseless. Mr. MacCormac, now of St. Thomas's Hospital, London, operated, and the patient recovered. This case made such an impression upon my mind that in almost all cases of strangulated hernia, no matter how long the bowel had been constricted, I would be inclined to operate, and give the patient the chance of recovering even with an artificial anus.

Sir A. Cooper, in his *Surgical Lectures*, states that "if the pulse be so small as to be scarcely perceptible, and the countenance anxious and sunken, no time is to be lost; but even under these circumstances, and with hiccough superadded, I have known the operation succeed." And in the next paragraph he says:—"Indeed there is scarcely any period of the symptoms which should forbid the operation."

Sir James Paget, in his *Clinical Lectures and Essays*, when speaking of strangulated hernia and the various symptoms demanding operation, states at p. 126:—"A patient must not be allowed to die with a strangulated hernia, if by any means whatever the strangulation can be relieved, and you must not be averted from the operation by any consideration of the number of deaths that follow it." And again, at p. 148, Sir James says:—"I have had to operate on patients already dying; I could not refuse to operate, for I could not be certain that it would be useless."

Having the opinions of two such distinguished men to guide us, I think we are justified in operating in all cases of strangulated hernia, no matter how hopeless the case may appear.

My last eight cases were performed with rigid antiseptic precautions, and I must bear my humble testimony to the great benefits it confers upon the surgeon, and also upon his patients.

I do not intend to give you a detailed history of my twenty cases, but only a short account of seven or eight, which, either differing from the usual condition of matters or from the occurrence of some rare complications, may interest you.

*CASE I.—Congenital Strangulated Inguinal Hernia in a boy, aged ten weeks ;
Operation ; Recovery.*

M. M., aged ten weeks, a weak, delicate child, was admitted into hospital on 31st August, 1876, suffering from a strangulated inguinal hernia, of three days' duration. Upon examination I found a right inguinal hernia, strangulated; the abdomen was very tympanitic, and tender upon pressure. The little fellow vomited all food, and the bowels had not been opened for three days.

I at once ordered the child a warm bath, and tried the taxis. Following out the practice advocated by some surgeons, especially in strangulated hernia in children, of elevating the pelvis and legs, I was unsuccessful; at once operated; the usual incisions were made in the

axis of the hernial tumour; the sac opened; the hernia proved to be of the congenital variety, and contained intestine and omentum. Owing to the age of the child, I had extreme difficulty in introducing the tip of my little finger into the canal, the stricture being at the internal abdominal ring. When the stricture was divided, as customary, I pulled down a portion of intestine to view the seat of stricture. The child suddenly made an expiratory effort, and down came two feet of intestine. The mass was so large I had great difficulty in manipulating it through the canal, and before succeeding it was necessary to enlarge the opening, and to wrap the prolapsed intestine in fine cloths wrung out of warm water. After the application of the warm water, the intestine seemed, as it were, to shrink up, and reduction was easily effected. The youngster made an uninterrupted recovery.

Remarks.—At the time I operated (August, 1876) I could not find recorded a successful operation in a patient so young. Mr. Erichsen (*Lancet*, 1872), I find, operated upon a child six weeks old, but the child died at the end of a month from a low form of peritonitis.

Within the last two months I saw reported in the journals a case of successful operation for strangulated hernia in a child fourteen days old. As regards the elevation of the pelvis in conjunction with the taxis, I once heard a distinguished London surgeon state that he had never found it necessary to operate for strangulated hernia in children—that he was always able to reduce the gut by taxis. However, in my case elevation got a good chance, but failed.

Since the occurrence of this case I have frequently found when a large mass of intestine was down, that by enveloping it in cloths or sponges wrung out of warm water, the volume of the prolapsed portion was almost at once reduced in size, and easily returned by taxis.

CASE II.—*Strangulated Femoral Hernia; Omental Sac; Death.*

A woman, aged fifty years, was admitted into hospital under my care, suffering from a right strangulated femoral hernia; symptoms of strangulation had continued four days. Upon examination I found a tense femoral hernia in right groin. Administered chloroform; tried taxis unsuccessfully; at once operated. The usual incisions were made, the fascia propria exposed, then the sac. My colleagues requested me to divide the stricture external to the sac; I did so, and by very gentle taxis emptied the sac. After the operation the symptoms of strangulation continued, and in three days the patient died.

Upon *post mortem* examination we found general peritonitis, and above the femoral opening a small mass of omentum, in the centre of which was concealed a piece of intestine about the size of the tip of the forefinger.

Remarks.—Had I the luck to open the sac in this case, the “omental

sac" would have been found, and the intestine easily liberated. It is in cases of femoral hernia, as I previously mentioned, that we most frequently meet with omental sacs, and since the occurrence of this case I always recommend the opening of the sac in femoral hernia.

The seat of stricture, as a rule, in femoral hernia is to be found at the falciform process of the saphenous opening—Hey's ligament—and not at Gimbernat's ligament. This fact has always been taught by Professor Gordon, and was long since pointed out by Sir A. Cooper. According to Cooper, the stricture may be found both at Hey's ligament and under the crural arch of Poupart's ligament.

A practical point to observe in operating upon cases of femoral hernia is the layer of adipose tissue which lies between the fascia propria, or sheath of the femoral vessels, and the sac. Sir A. Cooper states that he has known the fascia propria to be mistaken for the hernial sac. In fat subjects divide the strictures until you come upon the "fatty layer," and you have the sac underneath.

CASE III.—*Strangulated Inguinal Hernia ; Accidental Wound of Intestine ; Recovery.*

W. R., aged fourteen years, admitted August, 1879, suffering from a right strangulated inguinal hernia. He had been in hospital twelve months previously, suffering from strangulation of the intestine, when the taxis was used successfully. He had not worn a truss, although one was applied before he left hospital.

Upon admission a very tense inguinal hernia, dull upon percussion, was found. An omental hernia was diagnosed, owing to the dulness. The symptoms of strangulation were urgent, and immediate operation, after an unsuccessful trial of taxis, was determined upon. The usual incisions. Opened sac; it contained a large mass of intestine, and no omentum. The seat of stricture, at the internal abdominal ring, was divided with difficulty. When we endeavoured to replace the intestine, the opening was considered too small; and when introducing Sir A. Cooper's knife to enlarge the opening, I wounded the intestine. Almost immediately arterial blood came in a good flow from the wound. Upon examination of the gut an incised wound, half an inch long, but only involving the peritoneal and muscular coats of the intestine, was found; the mucous membrane of the bowel was prolapsed, as it were, to fill up the gap. The vessel was easily secured by Pean's artery forceps, and torsioned; no suture was used. After the operation I at once commenced the use of opium, and applied ice-bags over the abdomen; stopped opium upon sixth day, when bowels acted spontaneously. The boy's temperature and pulse were never above normal, and he made a rapid recovery.

Remarks.—Wound of the intestine, a very serious accident, is not of frequent occurrence. Cases are recorded where the most skilful surgeon

has accidentally incised the intestine, and no doubt the gravity of the injury depends upon the fact whether or not the wound penetrates the cavity. Lawrence states:—"A superficial wound—that is, one which does not penetrate the cavity—is of no consequence; the intestine may be returned without the slightest fear of unpleasant results." In my case the wound did not penetrate, and I simply restrained the bleeding. In operating upon this case, I used Sir A. Cooper's hernia knife, and I fully believe, had Patterson's or Richardson's knife been used, the accident would not have occurred. You are all aware how it is recommended in works on surgery to introduce Cooper's knife—lying flat upon the forefinger until the seat of stricture is reached, then to turn the cutting edge upwards. You will remember I told you a large mass of intestine protruded, and the stricture being very deep at the internal ring, it was scarcely possible to see what was being cut. The intestine slightly overlapped my finger, and when re-introducing Cooper's knife in the manner recommended, the gut was wounded.

I think that Patterson's knife is specially of service in cases where a large mass of intestine is in the sac, and where the seat of stricture is deeply situated. The forefinger acts as a guide for it to the point of stricture, and at the same time pushes the intestines aside. The knife is introduced along the finger with cutting edge upwards, and by keeping the blade of the knife upon the centre of the finger, and, just before dividing the stricture, requesting your assistant to make the parts at the neck of the sac tense by gently pulling down the prolapsed bowel, all danger of wounding the gut, in my opinion, is avoided. As regards the diagnosis of this case, you see a mistake was made—from the dulness of the tumour it was thought to be an epiplocele. From my limited experience I consider it almost impossible to accurately ascertain the contents of the sac before operating.

CASE IV.—*Strangulated Inguinal Hernia; Intestine abraded of its Peritoneal Coat; Recovery.*

J. L., aged thirty-six, admitted to hospital June, 1879, suffering from a large scrotal hernia upon right side. Upon consultation, immediate operative interference was deemed necessary. Chloroform administered, and the usual incisions made. Opened sac; it contained four feet of small intestine of a good colour, with the exception of the portion at seat of stricture, which was very dark. After division of the stricture I endeavoured by gentle taxis to reduce the bowel, but, owing to the large mass, was unsuccessful. Sponges wrung out of warm water were then applied, and the volume of the mass almost immediately became reduced, and at the expiration of ten minutes all the hernia was replaced. Just before the last portion of gut was returned I noticed that it was denuded of its peritoneal coat to the extent of a square inch. The part was

washed with a weak solution of carbolic acid, the peritoneum spread out over its former situation, and reduction proceeded with. The patient never had a bad symptom, and left hospital at the expiration of sixteen days.

Remarks.—It is rare to have such a mass of intestine prolapsed as was in this case. The case teaches us to be very careful in the use of the taxis when endeavouring to replace the bowel, and it also shows how much handling the intestine will frequently bear without any ill results.

CASE V.—*Strangulated Umbilical Hernia mistaken for a Carbuncle.*

Mrs. R., aged fifty-seven, was sent into the hospital, May, 1877, reported to be suffering from a carbuncle of the abdomen. My resident pupil was so confident that the poor woman was labouring under a carbuncle that he had strips of soap plaster ready cut to commence treatment at the hour of my visit. Casually placing my hand over the tumour, which occupied the umbilical region, I felt distinct gurgling when a little pressure was made. The existence of a hernia was now suspected; and, upon questioning the patient, I ascertained she had been vomiting incessantly for seven days, and that the bowels had not acted for five days. She also told me she had noticed a tumour the size of a walnut occasionally, at the umbilical opening, during the past few years, but that it had increased to the present size (about the size of half an orange) one week since. Certainly the tumour much resembled in appearance and coloration a carbuncle. I now saw we had a case of strangulated umbilical hernia to deal with. Tried the taxis, and immediately the tumour became reduced in size by a half; but there remained a hard mass which could not be replaced. The patient being very weak and evidently sinking, I summoned a consultation, when it was decided to operate at once. Made a longitudinal incision over the hernial tumour, opened the peritoneum, and found a mass of omentum highly congested. Upon gently raising the omentum a portion of intestine was seen to be glued to its lower surface. The adhesions between intestine and omentum were easily broken down. The umbilicus was incised in the median line upwards, and the omentum left *in situ*. The patient died in twenty-four hours.

Remarks.—This case teaches us to be very careful in diagnosis. We all know how rare it is to find a carbuncle upon the anterior portion of the body—still they do appear there; and a tumour occupying the umbilical region should lead us to inquire into its character. In Lawrence's treatise on "Hernia" (p. 589) you will see recorded cases of fatty tumours on the linea alba which resembled ruptures, and were operated on as such.

CASE VI.—*Strangulated Scrotal Hernia diagnosed to be a Hæmatocele, and tapped.*

A. R., aged fifty years, was brought to the hospital several months since by a medical man, who informed the House Surgeon that the patient was suffering from a scrotal tumour—probably a hæmatocele—which he had tapped with the ordinary hydrocele trocar and cannula. As very little blood flowed he considered the cavity of the tunica vaginalis to be filled with blood-clots. The patient upon examination presented a rounded tumour of the scrotum the size of a child's head; the skin covering it was very dark, and at a distance it very much resembled a hæmatocele. In addition, the tumour was dull upon percussion, very heavy, and not translucent. The right inguinal canal was occupied by a swelling which could only be felt upon very deep pressure.

At the lower part of right side of scrotum there was a puncture, through which a dark fluid oozed, having a fæcal odour. The patient when seen by me, five hours after admission, was almost pulseless and cold. Before my arrival the House Surgeon had applied warmth and given stimulants. The case was very puzzling at first sight. There was no history of injury to the scrotum. I happened to examine the man's abdomen, and found that he had been recently blistered and treated for "inflammation of the bowels." He denied ever having a rupture and had not worn a truss, but told me that twelve days since he was suddenly seized with vomiting and pain in the abdomen. At the same time he observed the "lump" in the scrotum. A medical man was called in, who told him he had inflammation of the bowels and stomach. At the expiration of twelve days, the vomiting and other urgent symptoms continuing, a second medical man was sent for, who now had all his attention directed to the scrotal tumour, which he diagnosed to be a hæmatocele, and punctured it. The same afternoon the patient was sent into hospital.

A consultation being summoned, the diagnosis, strangulated inguinal hernia, was come to, and although no doubt the intestine was gangrenous and the patient very low, we thought an operation might give him a chance.

The usual incisions were made. Opened the sac and found upwards of four feet of intestine in the scrotum. It was quite gangrenous, and ruptured at several points. We saw the opening which had been made by the trocar. The poor fellow only survived the operation eight hours.

Remarks.—At first sight the case much resembled one of hæmatocele, and, in addition, the fulness along the inguinal canal led to the belief that possibly it might be a case of hæmatocele of the tunica vaginalis and diffused hæmatocele of the cord. However, when the history was obtained all doubts regarding the diagnosis were at an end.

As bearing upon this case you will see recorded in Curling's Treatise on "Diseases of the Testis" a case related by Sir A. Cooper, in which a man was brought into St. Bartholomew's Hospital suffering from a scrotal tumour, which was considered a hernia. Owing to some symptoms of strangulation being present an operation was performed. The sac opened, and no intestine found; blood, "partly fluid and partly grumous, burst forth." The case was a hæmatocele of the tunica vaginalis and cord.

CASE VII.—*Displaced Inguinal Hernia.*

A. J., aged thirty-eight, admitted into hospital 18th September, 1879, suffering from a strangulated hernia. We found that he had suffered for years from a reducible hernia, and had worn a truss. One week since he noticed the hernia had a constant tendency to slip down behind the pad unless carefully watched.

To-day when at work a larger lump than usual suddenly appeared behind the pad. He was at once seized with very urgent symptoms of strangulation, and eight hours afterwards was sent into hospital. Upon looking at the hernial tumour as he lay in bed, I was at once struck by its peculiar shape. Upon examination we found the left inguinal canal and upper part of left scrotum occupied by the hernia, and, in addition, there was a swelling quite exterior to the internal abdominal ring, situated in the abdominal wall. I now suspected we had a case of displaced hernia to deal with, as a similar case occurred in the hospital when I was House Surgeon.

The patient when visited felt easy—temperature, 98·6°; pulse, 80; no vomiting—in fact, all the urgent symptoms had disappeared since his admission. Ice-bag was applied to the hernial tumour, and opium given. Six hours following admission vomiting recommenced, and, after consultation, I operated. Usual incisions were made; came down to sac, opened it, and introduced my forefinger along the intestine to feel for seat of stricture, but was surprised to find my finger went into a space, which I at first considered to be the abdominal cavity. I now drew down intestine, and as it came outside the scrotum the tumour exterior to the inguinal canal was seen to disappear. It was now quite apparent that my finger had been in a space between the abdominal muscles occupied by the hernia. Now, following the intestine very deeply, a stricture was found at the internal abdominal ring. It was divided and the hernia reduced. The intestine was of a dark claret-colour, and upon its surface several blood-clots were found—the result of efforts at taxis before admission. The patient died upon the 4th day from a low form of peritonitis.

Upon *post mortem* examination I found general peritonitis and a sac between the internal oblique and transversalis muscles, which had been occupied by the hernia.

Remarks.—Cases of displaced hernia are rare. As you are aware they may occur when you have a hernia complicated with an undescended testicle, the testicle occupying the canal and preventing the intestine passing into the scrotum. The intestine, being prevented from entering the canal, then stretches the neck of the vaginal process into a sac placed between the tissues of the abdominal walls, either upwards or downwards, between the skin and muscles, the muscles themselves, or between the muscles and internal abdominal fascia, forming the intra-parietal, intermuscular, or interstitial sac—*hernie en bissac* of the French, additional sac of Birkett (Bryant).

Although an undescended testicle appears to be the most common cause of this form of hernia, it may also be produced by a badly fitting truss, which, pressing only upon the external abdominal ring, allows the intestine to descend into the inguinal canal. It cannot escape at the external abdominal ring, and, as time proceeds, it gradually stretches the neck of the tunica vaginalis before it, forming an “intra-parietal” rupture.

In my case, no doubt, the poor fellow had worn a badly fitting truss for years, and instead of the pad pressing upon the internal abdominal ring and canal, it had pressed upon the external ring, and permitted of the gradual development of the additional sac.

CASE VIII.—*Strangulated Congenital Inguinal Hernia in a Girl; Sac contained Omentum, Intestine, and the Left Ovary.*

P. A., aged ten years, was admitted into hospital 12th August, 1879, suffering from a strangulated inguinal hernia, the symptoms of strangulation having existed for thirty-six hours.

Her mother stated that the rupture was noticed shortly after birth, but gave no trouble until the child was three years of age, when it became larger and painful at intervals, but was always easily reduced. When the child was five years of age the hernia became strangulated, and the mother was unable to return it. She was admitted into the Children's Hospital, where it was reduced, and was discharged wearing a properly fitting truss. After a time the truss was left off, and the rupture came down occasionally as before, up to March, 1878, when symptoms of strangulation again occurred. She was admitted into the Royal Hospital under my care, when reduction was easily effected, and she left hospital with a truss applied. The use of the second truss was discontinued, but the hernia did not again come down until the 10th August, 1879.

When admitted into hospital on the 12th August, 1879, I found a tumour at the external abdominal ring as large as a hen's egg, tense to the feel, and painful. Symptoms of strangulation being urgent, the patient was put into a warm bath, had an opiate, and taxis tried unsuc-

cessfully. Chloroform was now administered; taxis a second time being tried without success, the operation was proceeded with. The sac was opened, and instantly a quantity of omentum, very much congested, came into view; behind the omentum lay a small piece of intestine. The stricture, which was very tight, was now divided; the intestine returned. The omentum, measuring four inches long and two inches wide, owing to its congested appearance, was ligatured with a double catgut ligature, and cut off close to the neck of the sac; the pedicle and ligature were then returned into the abdomen. Upon now examining the sac I discovered at its upper part a structure much the size of a small lymphatic gland. When this was carefully examined we found it to be the left ovary and broad ligament. It was some time before an opinion was pronounced, and it was only after the parts had been drawn gently down that we satisfied ourselves regarding the identity of the ovary and broad ligament. The ovary was healthy in appearance, not being in the slightest degree congested, and it was returned into the abdomen. The entire operation was performed antiseptically. Ice-bags were applied to the abdomen after the operation, and opium in small doses administered. The pulse and temperature were never above the normal standard until the twelfth day, when a small abscess formed in the abdominal wall; this was at once incised, and the child was discharged in three weeks' time, wound cicatrised, and wearing a truss.

Remarks.—Cases of hernia in which the ovary has been found in the sac are rare, no reference being made to it in the surgical works of Holmes, Erichsen, Fergusson, Paget, Bryant, Skey, or Gross. Lawrence mentions cases as having occurred in the practice of Pott.

At a meeting of the Medical and Chirurgical Society in 1864, Mr. Coote mentioned a case which had occurred at St. Bartholomew's Hospital. A woman was admitted into the hospital with a swelling in the left groin, and suffering from the symptoms of a strangulated hernia. An operation was performed. When the sac was opened it was found to contain some thickened omentum and the left ovary. At the same meeting Mr. C. Hawkins stated he had met with two cases in which the ovary was found in the hernial sac.

In the *Bellevue Hospital Reports*, 1870, twelve cases of ovarian hernia are recorded by Dr. Hamilton, which were operated upon before a diagnosis was made.

In the "Transactions of the London Obstetrical Society" a case is recorded by Dr. Alfred Meadows.

In the *American Journal of the Medical Sciences* for October, 1877, Dr. Balleray, of New Jersey, reports a case of strangulated hernia which was operated upon, when neither intestine nor omentum was found, but the left ovary was lying near the lower part of the sac. Dr. Balleray also discusses the propriety of leaving the ovary in the sac, or returning

it into the abdomen after division of stricture. He says:—"The rule by which the surgeon is governed in the management of strangulated intestine, or omentum, is, I think, applicable to these cases." He considers when the ovary is but slightly congested it should be returned into the abdominal cavity. "But in cases in which, from long continuance of the strangulation, or excessive tightness of the stricture, the tissues of the ovary either are or are likely to become gangrenous, removal of the organ is, in my opinion, the proper course to pursue."

Those of you who have been reading *The Lancet* must have noticed in the "Transactions of the London Obstetrical Society," published in *The Lancet*, Oct. 11, 1877, a case of congenital inguino-ovarian hernia, reported by Dr. T. Chambers. The patient had noticed swellings in the groins for many years, and as they were occasionally subject to pain from knocks and injuries, it was determined to remove them, as they could not be returned into the abdomen. After removal they were subjected to microscopical examination, and found to be glandular organs, presenting the structure, not of ovaries, but of imperfectly developed testicles.

In the editorial remarks upon Dr. Chambers' case it is stated:—"Cases of inguinal hernia of the ovaries are rare; cases of congenital inguinal hernia of these organs are much more rare—so much so, indeed, that any case recorded as such should be looked upon with the gravest suspicion, unless positive anatomical proof of it be brought forward."

There is no doubt but my case was a congenital inguinal hernia, as the mother had noticed the protrusion almost from the child's birth.

In the examination of the contents of the sac I had the benefit of the experience of two distinguished Scotch medical men, who happened to be present at the operation, and we were all agreed upon the fact that, after the intestine and omentum were returned, there still remained in the hernial sac the left ovary and broad ligament.

Those of you who take an interest in the subject of ovarian hernia will see in the "Biennial Retrospect of Medicine and Surgery" (Sydenham Society) for 1871-72, a very practical paper upon the various varieties of the hernia, its complications and treatment, drawn up by Mr. Waren Tay, of the London Hospital.

COD-LIVER OIL AND CHLORAL.

A GERMAN medical journal states that a mixture of 1 part of chloral hydrate with 19 parts of cod-liver oil is much used by the Lisbon physicians. The oil is said to be more agreeable to take, is soporific in character, and under its use the night sweats diminish and the strength increases.—*Chemist and Druggist*.

CLINICAL RECORDS.

A CASE OF HYDROPHOBIA.* By J. MAGEE FINNY, M.D., Univ. Dub.;
F.K.Q.C.P.I.; Visiting Physician to the City of Dublin Hospital.

THE case of hydrophobia which has been recently under your notice in this hospital seems a fitting subject for my lecture to-day.

Instances of hydrophobia are very rare. Some physicians, indeed, have never seen a case of this terrible disease, and go so far even as to doubt its existence. Though rare, unfortunately it is not rare enough, and hardly a year passes without cases being admitted into our metropolitan hospitals. Two such were admitted last year here, and this case, the subject of my lecture, is the third which it has been my fortune to meet.

Rabies (a term to be preferred to hydrophobia) belongs to the class of contagious diseases, and cannot be spontaneously developed in man, or transmitted except by direct inoculation of the virus to a broken surface of the skin and mucous membrane. It is conveyed by the bite of an infected animal—most commonly by a dog, though it may be by a cat or fox. The animal must be *rabid*, since the bite of an angry dog does not appear to cause it, and the virus—the nature of which is unknown, and which lodges in the saliva—is communicated by the bite, even though the dog at the time exhibits very few of the symptoms—in fact, while the disease is only commencing to develop. The importance of recognising this fact cannot be too strongly impressed on the public, as the popular method of immediately destroying a dog who has inflicted a bite leads to very great uncertainty as to the animal being rabid, and inflicts, most unnecessarily, for weeks and months, agonising suspense on the bitten person. The proper course to adopt is, that the dog who has bitten anyone should be confined for a fortnight and kept under observation, so that, should no other symptoms develop in that time, the patient may be reassured as to the innocuity of the bite, and the life of, perhaps, a valuable animal may be spared from superstitious immolation.

Once the poison is inoculated it remains in the system for an indefinite period, to which, similarly as in the case of the exanthematous fevers, the term of incubation is applied. One of the most remarkable points in the history of rabies is the long time this stage may last. No other infective matter remains latent so long. It usually ranges between eighteen to sixty-four days; it may, however, be prolonged to six

* A clinical lecture delivered in the City of Dublin Hospital, March 1st, 1880.

months, or even, as in the case of James M., to eleven months. There are, indeed, cases where the incubative stage is stated to be of several years' duration, but in such it is probable that during that time more than one bite was inflicted, although the last wound (the poisoned one) may have been the least severe—perhaps but a scratch—and, accordingly, overlooked.

During this stage of incubation the bitten individual, with the exception (in the case of adults) of the disquiet produced by a nervous dread of the disease, feels usually quite well. However, towards its close, be it long or short, a group of ill-defined symptoms develops, and the sufferer may complain of sleeplessness, restlessness, and neuralgic pains extending from the bite. This may last for one, two, or three days—rarely longer, and is followed by the marked characteristic symptoms of the stage of excitement. It is to this stage that the term hydrophobia is applied, and yet the sufferer dreads not the water, but he dreads, with a feeling of terror of the intensest nature (which must be witnessed to be realised), the peculiar spasms of deglutition and respiration, which the attempt to swallow any liquid instantly induces. This state of nervous exaltation is carried in some to such an extent that spasms are induced by a breath of air, the opening and shutting of a door, or the sudden approach of anyone to the patient. During this stage appears another characteristic symptom—that of “spitting,” the saliva being copious, frothy, and slimy. Our patient expressed the true reason of this constant expectoration, for, when expostulated with, he said “he was afraid to swallow his spittle, as it choked him.” After this stage of excitement—which in adults may assume true mania, with, at times, a homicidal tendency—has lasted two or three days (very rarely four days), the stage of paralysis ensues, during which the distressing symptom of dysphagia may disappear, and a quiet, following the preceding wild excitement, may lead to the fallacious hope of recovery. It is, however, of very short and variable duration—a few minutes or hours—and it ends in death, which, even though expected, is often sudden.

The whole duration of the attack of rabies may, therefore, be considered of from three to four days. Of the total number of those dying of it, 59 per cent. die within the first three days.*

I shall now read the notes of the case of J. M., taken by Mr. Stuart Davis, and I claim your indulgence while I record the features of the disease in as succinct and yet in as full a manner as I can. My reasons for entering thus fully into the symptoms, and for detailing them at some length, are, that you may have them impressed upon your memory in a permanent manner; and, though the patient was seen indeed by most of you, the stage at which you saw him was not that in which you

* See valuable Report on Hydrophobia. By Dr. A. W. Foot. *Dub. Journ. Med. Science*, Oct., 1879.

will be called upon to make a diagnosis, and the (necessarily) hasty glimpse you had could not have proved sufficient to impress you with the full importance of the symptoms, or with the details of management.

CASE.—J. M., aged forty-two, married, cardriver, was admitted under my care into the City of Dublin Hospital on February 18th, 1880, suffering from hydrophobia.

The patient was a strong, stoutly-built man, about 5 ft. 9 in., of very intemperate habits, having had more than one attack of *delirium tremens*, and although he stated he has not, for the last fortnight, indulged too freely, he presented on admission many evidences of alcoholism, so as to suggest the idea, but only for a moment, that the case was really one of *delirium tremens*.

On being questioned he said he had got a bite of a dog three months ago. His friends, however, state that this was a mistake, as it was nearly a year ago since he was bitten, and on referring to the hospital register it was shown that on 18th March, 1879 (eleven months ago), the man was treated by the surgical resident, Dr. Finucane, for a bite on the ball of the thumb of the right hand, the wound being at the time freely cauterised with fuming nitric acid. A scar corresponding in situation was found on the right wrist. Dr. Finucane, who has a lively recollection of the man and circumstances, states that at the time of the bite the patient betrayed considerable alarm. At present he seemed to have forgotten all about it, for, until closely questioned, he never mentioned the bite, and when he did speak of it, he referred to it as a thing not worth noting. "What matter," he would say, "about the bite? it is well this long time; there is no pain in my hand or arm, and it has nothing to say to my distress here" (pointing to the throat just above the sternum).

I think it well to mention these facts as bearing upon the theory of some that hydrophobia is but a mental state, into which the patient works himself by brooding fear. Such a theory can gain no support from this case any more than it gains in the instances of infected bites in infants and young children.

On February 15th, the patient states, he was in his usual good health, except that he felt a little depressed, and was sleepless, and for these he accounted by a heavy drinking-bout the week before. That night, on going to bed, he complained of feeling "queer," and of a sensation of cold down his back, and of a burning heat in his legs. Neither then nor at any other time did he notice any shooting pains or sensations in the scar of the bite, or in the right arm.

On the next day, for the first time, he experienced some difficulty in swallowing, although he managed to consume on that day several glasses of spirits, as well as of other liquids.

On the 17th February the dysphagia was more decided; his fluids

were reduced to three glasses of whisky—not so much from actual inability to swallow as from the suffocating spasm which the act of deglutition provoked.

The day following (18th) he was admitted to hospital on the recommendation of Dr. Byrne, who saw him early that morning, and at once recognised the serious nature of the case. Thus he came under observation on the third day of his illness, if we date from the commencement of difficulty of swallowing, or the fourth from the end of the stage of incubation. He was accompanied to hospital by three friends, or boon companions, and when first seen he presented no evident appearances which marked him as ill. It was noted that his face was unshaven, for which he accounted by saying “he was afraid to shave.” His pulse was 94, temperature 98.2°. The urine passed while in hospital was of a deep colour, acid, specific gravity 1028, and contained a trace of sugar and a small quantity of albumen. The quantity was small, and quite out of proportion to the amount of fluids he managed to drink.

The first sign of the disease he betrayed was while in conversation. Thus, when he replied, seemingly quite quietly and rationally, to questions put to him, he occasionally ended the sentence in a quick, loud, hurried manner; at the same time he would start up in bed, and shift his position, with a wild and staring look, exactly as if he were greatly startled. As soon as this passed, he would lie down again in a quiet and collected way, arrange his bed-clothes; and acknowledging that he was aware he had made a noise—amounting at times to a regular shout, to be heard all over the hospital—he would apologise by saying “he could not help it.” Later on in the day his speech was so sudden, loud, and abrupt, and accompanied with a stammer, that it might, by an imaginative observer, be described as a “bark,” and hence probably has arisen the popular idea of hydrophobics barking like a dog. In the spasms the inspiration was suddenly and rapidly repeated, followed by an expiration in which the sentence was hurriedly finished—very much as one might finish a sentence if, while speaking, a bucket of cold water were unexpectedly thrown over the chest and back. I took an opportunity of listening to the chest during one of these earlier spasms, and the stillness of the respiration reminded me much of the condition of the chest in whooping-cough. The pupils were watched during the attacks, and were noted to become dilated. When offered fluids at first, no spasm was induced; yet, as if aware of the risk of attempting to swallow, he generally placed the vessel gently out of his sight, saying “he would take a drink presently.” If, however, he was urged and encouraged, the following was the usual course of events:—After several ineffectual efforts to bring the cup to his lips, during which his face assumed a terrified expression, he would suddenly dash it to his mouth (spilling a great deal over his clothes), and empty it at a long

draught down his throat; meanwhile his eyes started out of his head, his features being expressive of intense fear, and he would conclude the act by placing down the vessel (he broke nothing) in a hurried way; and panting and shouting, he would start out of bed and rush to the other end of the ward, regardless of restraint offered by his attendants. During this excitement he showed no intention to do injury to anyone, but simply to try to obtain relief by this muscular exertion. He did indeed, on one of these occasions, knock down one of his friends who attended him, but it was not intentional, for, when quiet, he expressed his regret.

As the disease advanced, and his thirst increased (due to the want of the natural lubrication of the saliva, which should be involuntarily swallowed, but which he spat out), his attempts to assuage his thirst by drinking became more frequent, and although he managed to get through nearly four pints of milk and beef-tea, it was at the cost of an almost continuous series of shoutings and jumpings out of bed as described. After these attacks it was sometimes with much difficulty he was induced to return to bed, and as the disease advanced the spasms came on without attempting to drink, and were induced by the approach of anyone, or the opening of the door. Between the paroxysms he was incessantly talking, wanted his clothes, and seemed to have illusions—imagined people were in the room, with whom he conversed. This condition was exactly that of *delirium tremens*, and as such symptoms of busy delirium are not common in rabies, I am inclined to attribute them to the toxic effect of the alcohol he had taken before admission. When spoken to, he came to himself at once, recognised his friends, and even recognised the hospital porter whom he had not seen for several months.

The line of treatment adopted may briefly be described as sedative. The patient was placed in a separate ward, attended by his own friends, and no one admitted except the medical attendants. Immediately after admission $\frac{1}{4}$ gr. morphia with $\frac{1}{80}$ gr. atropia was administered hypodermically, and the morphia was repeated in $\frac{1}{4}$ gr. doses three times between 6 p.m. and 11.30 p.m., omitting the atropia. The first dose was followed by four hours' quiet and a couple of hours' sleep, the patient waking out of it in a tranquil state. The drug, however, seemed afterwards to lose its effect, similarly as it does in tetanus, so that with the last dose 10 gr. of chloral were hypodermically used. This was soon followed by sleep. When visited a couple of hours afterwards, Mr. Davis found him in a state of coma, in which the respiratory centres seemed involved, as the breathing was very remarkable—approaching that described by Drs. Cheyne and Stokes—and the face was purple and congested. With considerable difficulty, and after continued excitation of the skin by flagellation, and faradisation, he was roused out of this state, which was treated as a case of opium-poisoning. After some time the patient suddenly sat up, the peculiar unrhythmical breathing forthwith ceased, and

in about half an hour later he was exactly in the same condition he had been in four hours previously. During the unconsciousness the pulse ranged to 96 and the temperature to 100·2°.

Reflecting on these strange symptoms, I am not inclined to attribute them to the narcotism of morphia, but to a vascular congestion of, and perhaps minute hæmorrhage into, the medulla oblongata. The reasons for this conclusion are:—(1.) The amount of morphia was by no means sufficient to produce deep narcotism, being but $\frac{3}{4}$ gr. administered in three doses, at intervals of an hour and a half between each. (2.) The usual tolerance of this and other drugs in hydrophobia. (3.) The absence of the deep stertor such as occurs in opium-poisoning, and the presence of a peculiar “ascending and descending” respiration, marked with great want of rhythm as to time. (4.) The sudden cessation of this unrhythmical breathing. (5.) The rapidity with which the patient came out of it (two hours from the time the coma was discovered), without any subsequent drowsiness or lethargy, so soon as sensation and reflex action were thoroughly re-established. (6.) The absence of any marked contraction of the pupils.

After the former condition of the patient was re-established, chloral was given—30 grains in milk during the following three hours—and towards morning, as this seemed in no way to check the delirium and spasms, morphia, gr. $\frac{1}{4}$, and chloral, gr. 5, were hypodermically injected. His diet consisted of beef-tea and milk *ad libitum*, and six ounces of whisky.

After this restless night, in which little or no sleep was obtained, his condition on the morning the class saw him was one of mania, which was aggravated by the incautious entrance of several students into his ward, and still more by some few who, prompted by curiosity, though forbidden to enter, managed to peep in at him through the window.

Though always amenable to me and to Mr. Davis, who was indefatigable in his attention, he became terribly excited by the students, against whom he vowed the direst vengeance. This threat he seemed ready to put in force, for he got possession of a short iron poker, and, armed with this weapon, he posted himself on a chair opposite the door. This was about an hour before his death. He was then able to drink without spasm, although he still continued to expectorate. His pulse became very small and weak, the heart-sounds short and abrupt; his skin was cold and clammy, and he said the room was dark. That his end was approaching he seemed aware, for he tightly grasped my hand with his disengaged hand, and asked me if I thought he should recover. A short time afterwards he bid farewell to the friend who alone, out of three, nobly remained with him till his death, and spoke to him of their former friendship. He then allowed himself to be carried back to bed, and died without a spasm or convulsion.

Post mortem examination was made eighteen hours after death. The body was in a state of the most marked rigor mortis, with cadaveric staining of the dependent parts. A scar was noticed on the right thumb, and no other mark was discoverable, except a cicatrix along the lower jaw, whence a piece of bone had been extracted by Mr. Wheeler some six months previously.

The skull contents were alone examined. The calvarium was very thick; and firmly adherent to it along the vertex, more particularly at the left side, were the membranes, so that difficulty was experienced in removing the brain. There was excess of fluid in the ventricles, and some general congestion of the surface of the hemispheres. Besides, nothing abnormal was to be noted.

The medulla, upper portion of the spinal cord, and pons were placed aside for microscopic examination, which Dr. R. J. Harvey has kindly undertaken to make, and I trust, at a future date, to lay the result before you.

Remarks.—Any of you who have for yourselves witnessed the striking clinical phenomena of rabies, or who have attended closely to the foregoing description, can have no difficulty in dealing with the question of *diagnosis*; and yet in many of the books of reference you will notice how much pains are taken to make a diagnosis from other diseases which are supposed to be like rabies—tetanus, hysteria, and acute spinal meningitis. With none of these was there any likelihood of making a mistake. There were, however, symptoms at the time of admission which, taken with the well-known character of the patient and the history of his intemperate habits, suggested strongly the idea of *delirium tremens*, and for a short time rendered a diagnosis not very easy. This idea was, however, rapidly dispelled by the observation of the terror induced on his attempting to drink.

As to the *prognosis* of rabies, I fear it is absolutely unfavourable. Prof. Bollinger (the writer on "Hydrophobia" in *Cyclopædia of the Practice of Medicine*, H. von Ziemssen) says:—"Although I by no means wish to deny the possibility of recovery from hydrophobia, I cannot but regard it as a significant fact that not a single case of recovery has been reported by any of the recent able observers."

The disease has ended fatally in every instance in which man has been attacked. There are doubtless alleged cases of recovery, and one not unfrequently sees notices of such in the daily journals, but in all these cases the patients were probably the victims, under the influence of fear, of a mental disorder simulating rabies, to which is given the term *lyssa-phobia*, or mental hydrophobia.

Such being the prognosis, the question of *treatment* at the time of the stage of excitement resolves itself into that of palliative medicines. Of these chloroform, morphia, and chloral hydrate are the chief. The first has

been most strongly advocated, but the difficulty of its application in at all a violent patient restricts its employment to mild cases. In a case—that of a boy, aged eleven—in which I have seen it used, it certainly was of benefit in prolonging the narcosis of morphia, and assuaging the spasms, as long as its influence was maintained, but it did not prolong life. The most convenient and serviceable remedies are chloral and morphia, which may be administered separately or together, and hypodermically when the patient cannot swallow—a method, in the case of chloral, well worthy of further trial. Curare, a deadly poison, and a powerful paralyser, has been employed hypodermically with seemingly good results in some few instances, but in our case there was at no time such danger of suffocation from spasms to justify its use, although doubtless, had the patient refused all nutriment, I should have employed it; I had it at hand ready for use, should the indications have arisen. As the drug is uncertain in its strength, and the tolerance of it unequal, it is best to begin by small doses— $\frac{1}{10}$ th to $\frac{1}{10}$ th grain—and to repeat them at short intervals, till it manifests its influence by checking the spasms.

If to the foregoing sedatives we add the *hot air* bath, we shall have enumerated all the means at our disposal to soothe and render the last few hours of the sufferer's life less agonising to himself and distressing to his family and friends.

To cure our patients in this, as in all other diseases, is our duty and our aim; but as the verdict in hydrophobia has been, so is it still, and so, until pathology and physiology can throw some new light on this obscure nervous disease, it will, I fear, continue to be, to the end of time, that *Ἱατρός ἰάται θάνατος*—"the physician that cures is death."

THE TOPICAL USE OF ERGOTINE.

DR. ELDRIDGE, of Yokohama, after an operation for stricture of the bulbous urethra, found, by means of the endoscope, a granular condition of the urethral mucous membrane for about two inches. A gleety discharge was also present. Ergotine (Bonjean's) was applied by means of an ointment syringe, and the patient kept recumbent for an hour afterwards. After six applications on alternate days the gleet had entirely disappeared, and there was no trace of granulations to be discovered. The author has also used ergotine in other cases with advantage. Also Dr. Vidal (*Lyon Médical*) has cured a prolapse of the rectum of more than eight years' standing, by employing injections of ergotine. He has also treated an old-standing case in a woman, and almost completely reduced the prolapse by three injections. The contractions provoked by the ergotine extend as far as the bladder, producing spasm of the neck and dysuria.—*Calcutta Medical News*. S. W.

SANITARY AND METEOROLOGICAL NOTES.

Compiled by J. W. MOORE, M.D., F.K.Q.C.P.

VITAL STATISTICS

*Of Eight Large Towns in Ireland, for Four Weeks ending Saturday,
May 22, 1880.*

Towns	Population in 1871	Births Registered	Deaths Registered	DEATHS FROM ZYMOTIC DISEASES								Annual Rate of Mortality per 1,000 Inhabitants
				Smallpox	Measles	Scarlet Fever	Diphtheria	Whooping Cough	Fever	Diarrhea		
Dublin, -	314,666	713	868	31	11	50	5	38	37	5	35·9	
Belfast, -	182,082	617	421	1	8	1	2	16	11	12	30·1	
Cork, -	91,965	221	241	—	2	14	—	2	11	7	34·1	
Limerick, -	44,209	103	85	—	—	—	—	—	3	3	25·0	
Derry, -	30,884	74	59	—	—	—	—	8	1	—	24·8	
Waterford, -	30,626	83	62	—	—	5	—	2	—	1	26·4	
Galway, -	19,692	44	38	—	—	—	—	—	3	1	25·1	
Sligo, -	17,285	43	26	—	—	—	—	—	1	2	19·6	

Remarks.

Notwithstanding the generally favourable character of the season—fine, dry, and sunshiny—the mortality continues high in most of the Irish towns, but particularly so in Dublin and Belfast. The average annual death-rate represented by the deaths registered during the four weeks in sixteen principal town districts of Ireland was 31·4 per 1,000 of the population. In twenty large English towns, inclusive of London (in which it was as low as 19·6), the mortality was at the rate of 21·0 per 1,000 annually. It was 24·9 in Glasgow, 21·5 in Edinburgh, 34·8 in the Dublin registration district, even when the deaths (26) of persons admitted into public institutions from without the district are deducted, and 37·6 within the municipal boundary of Dublin. Zymotic affections were again very destructive to life in Dublin. They were credited with 198 deaths, compared with a ten-year average of 141·2. Smallpox, scarlatina, and whooping-cough showed increased fatality. Measles was much less fatal, and fever remained about the same as in the previous four weeks. Of the 37 deaths attributed to “fever,” 12 were returned as due to typhus, 21 to enteric, and 2 to “simple continued fever.”

There was not much change in the respective prevalence of the ordinary zymotics in the other Irish towns. In Dublin, diseases of the organs of respiration were assigned as the cause of death in 137 instances, compared with 128·0 in the corresponding period of the preceding ten years, and with 151 in the previous four weeks. They included 97 deaths from bronchitis (average=91·9) and 31 from pneumonia (average=21·6). The latter disease has been extremely prevalent during the past few weeks, owing to a dry atmosphere and unusually great variations of temperature. At the close of the period the respective numbers of cases of the different epidemic diseases under treatment in the principal Dublin hospitals were—of smallpox 83, measles 11, scarlatina 57, typhus 32, enteric fever 23, and pneumonia 20.

METEOROLOGY.

Abstract of Observations made at Dublin, Lat. 53° 20' N., Long. 6° 15' W., for the Month of May, 1880.

Mean Height of Barometer,	-	-	-	30·135 inches.
Maximal Height of Barometer (on 29th at 9 a.m.),	-	-	-	30·480 „
Minimal Height of Barometer (on 23rd at 11 p.m.),	-	-	-	29·616 „
Mean Dry-bulb Temperature,	-	-	-	52·0°
Mean Wet-bulb Temperature,	-	-	-	47·8°
Mean Dew-point Temperature,	-	-	-	43·5°
Mean Elastic Force (Tension) of Aqueous Vapour,	-	-	-	·285 inch.
Mean Humidity,	-	-	-	73·4 per cent.
Highest Temperature in Shade (on 19th),	-	-	-	69·4°
Lowest Temperature in Shade (on 3rd),	-	-	-	38·2°
Lowest Temperature on Grass (Radiation) (on 7th),	-	-	-	33·8°
Mean Amount of Cloud,	-	-	-	52·3 per cent.
Rainfall (on 9 days),	-	-	-	·847 inch.
General Directions of Wind,	-	-	-	E.N.E. & W.N.W.

Remarks.

A fine, very dry month, with frequent sunshine and a preponderance of polar winds. Up to the 26th rain fell in appreciable quantity in Dublin on only three days. The last few days of the month, however, were very showery. During the first fortnight the wind blew almost without intermission from points between N. and E., and the weather was extremely dry with particularly sharp nights. On the morning of the 3rd the sheltered thermometer fell to 38·2° in Dublin, and on the night of the 6th a minimum of 32° was registered at Portarlington. Temperature rose decidedly on the 18th, and on the following day the maximum of the month in Dublin (69·4°) was reached. On the 26th a wave of unusual heat for the time of year passed over France and the S. and S.E. of England. In the afternoon of the previous day the

thermometer had risen to 95° in the shade at Biarritz, and on the 26th the following maxima were recorded—91° at Biarritz and Rochefort, 87° at Brussels, 86° in London, 85° at Lyons, and 82° at Cambridge. At night a thunderstorm passed across the S.E. and E. of England, while rain fell in torrents at many stations situated in a line running north-eastwards from the Bristol Channel to Yorkshire. The weather now became showery in most districts, so that vegetation made rapid progress. The dry harsh weather caused a nearly complete failure of the hawthorn blossom. In Dublin the barometer remained above 30 inches from the morning of the 4th to the morning of the 22nd. In the period between the 22nd and the 25th some deep atmospherical depressions crossed Scandinavia from S.W. to N.E., causing strong westerly winds over the N.W. of Europe. In Dublin hail fell heavily at 1 p.m. of the 27th, and distant thunder was heard at 10 45 a.m. of the 31st. Solar halos were observed on the 5th, 14th, 18th, and 22nd. At 9 p.m. of the 20th the relative humidity was only 52 per cent.

PERISCOPE.

Edited by G. F. DUFFEY, M.D., F.K.Q.C.P.

EXTERNAL RECTOTOMY AS A SUBSTITUTE FOR LUMBAR COLOTOMY IN THE TREATMENT OF STRICTURE OF THE RECTUM.

DR. CHARLES B. KELSEY contributes a suggestive paper to the *N. Y. Med. Journal* of March, 1880, under the above title. He tabulates several cases he has collected in which internal rectotomy or external rectotomy with the knife or with the ecraseur or galvano-cautery has been performed. Omitting the internal operation he furnishes a table of twenty-seven cases of the external operation—eight for malignant and nineteen for non-malignant disease. Nothing less is claimed for this operation than that it is a substitute for lumbar colotomy in all those grave cases of stricture for which that operation is now done, and which are near enough to the anus to allow of the performance of the former without implicating the peritoneum. The cases quoted are not very numerous, but as far as they go colotomy can show nothing better either in the way of relieving pain or prolonging life; and if the results of the minor operation are anything like as good as those of the other, its many advantages do not need to be enumerated. One point which is exceedingly well brought out in the study of these cases is the important part played by the sphincter muscle in the sufferings accompanying stricture, and the relief given by its simple division without interference with the stricture itself. The relief of pain is perhaps as often an indication for

colotomy as is threatened obstruction, and should it be proved by results that this indication may be met by the complete division of the sphincter, the field of the major operation is again narrowed. The question at once arises—How many patients have submitted to all the dangers and discomforts of an artificial anus in the loin or abdomen, not so much for obstruction as for a sphincter muscle constantly in a state of irritation, which might have been relieved by its simple and complete division? A useful bibliographical reference to the literature of the subject is appended to Dr. Kelsey's paper.

TREATMENT OF ULCERATING HÆMORRHOIDS BY CONSTIPATION.

M. DESPRES at the Hôpital Cochin has for some months past adopted successfully a paradoxical treatment of ulcerated internal hæmorrhoids. Believing that the main cause which keeps open their surface is the passage of matter during defæcation, he considers perfect rest essential to the cure. To this end he advocates the inducing of constipation—a treatment to be persevered in for about a month and a half, the time necessary for the cicatrix to form. Some cases are unsuitable, as where in hæmorrhoids of long standing the mucous membrane of the lower part of the rectum has become the seat of a chronic catarrhal inflammation with abnormal development of the glands and constant mucopurulent secretion. When the tumours are pediculated it is necessary first to cut them off so as to make them sessile; their raw surfaces will then be practically ulcers, and therefore amenable to the same treatment. Constipation is induced and maintained thus:—The bowels are first emptied by a mild purgative, then the patient takes each day in the evening two pills containing one grain of opium, also every morning an enema containing rhatany and laudanum (6 drops), and every evening a second enema of water with a drachm of alum dissolved in it. For six days this plan is adopted, but as the patient about this time experiences the need of going to stool, he gets a glass of seidlitz water and an enema of oil. Defæcation then causes no pain nor irritation of the healing surface. The constipation is then recommenced for six days more, and continued till the cure is complete.—*Revue Médicale*.

S. W.

THE REACTION OF SWEAT.

SINCE the researches of Thénard, Andral, Favre, &c., the sweat has always been considered to have normally an acid reaction. Trumpy and Luchsinger maintain that it is alkaline, and that its supposed acidity was only due to the sebaceous secretion of the skin. M. Tourton, experimenting on parts of the skin devoid of sebaceous glands—such as the palm of the hand and the corresponding surface of the fingers—shows that the secretion is distinctly acid. Furthermore, he has demonstrated

that in profuse perspiration induced by external heat, or by hot drinks, the acidity of the sweat diminishes gradually, but never disappears. On the other hand, sweat produced by the action of jaborandi is alkaline at those points where it is most profuse, neutral or feebly acid in others.—*Lyon Médical*, Feb. 29, 1880.

K. F.

PILLS OF CITRATE OF QUININE AND IRON.

DR. JAMES M'CRAITH, of Smyrna, in a communication to *The Chemist and Druggist*, says he has invented a means by which tolerably good pills can be made of this very useful medicine, so difficult to be swallowed in any other form. Reduce into fine powder in a mortar the citrate of quinine and iron. Make a very thick paste (a jelly, in fact) of powdered tragacanth, *without sugar*—simple tragacanth powder, in fact. Rub this jelly up with some olei amygdal. dulc., about 4 or 5 drops to the 3j. The powdered citrate mixed up with this and any bitter extract—nucis vom. alcool., for example—will make an excellent pill mass. The pills must not be kept in magnesia. Some arrowroot powdered fine and mixed with pulv. glycyrrhizæ is a good powder to drop them in. The pills must be well covered with this powder.

ERRATA.

In note at end of Dr. M'Munn's paper in the June number, page 517, for "Jaffé" read "Maly."

In the report of the discussion on Mr. Stokes's paper on "*Vaccinia Gangrænosa*," at the Medical Society of the College of Physicians on Wednesday, May 5, 1880, published in this Journal for June, a sentence in Dr. C. F. Moore's remarks on page 532, line 15 from top of page, should read as follows:—"In England, in 1878, there were 9,000 practitioners supplied with lymph from the Vaccine Department, London, each of whom vaccinated large numbers of persons therewith, and not one complaint was made of any serious illness arising from the use of the lymph," &c.

In the report of Dr. Kinkead's reply in the Proceedings of the Dublin Obstetrical Society for May 1, 1880, published in this Journal for June, page 546, we are requested to make the following corrections:—

Line 12 from top of page—for: "I excluded cases of very narrow pelves," read—"I included only cases of very narrow pelves."

In *line 16 from foot of page* the authorship of a paper in *The Medical Press* is attributed to Dr. Harris. What Dr. Kinkead did say was—"That impression was altered after I read papers by Dr. Harris, in *The American Journal of Medical Science*; and I was further impressed with the necessity of reconsidering the subject after reading a paper in *The Medical Press*," &c.

Line 3 from foot of page, after "mortality" read "in ovariectomy."