weeks not having relieved the symptoms, which had, on the contrary, become worse, the state of the case becoming urgent, the operation was performed on February 23rd, 1889.

Dr. Glynn looked for but found no optic neuritis. There could have been no difficulty in localising the tumour in the right Rolandic area by ordinary methods of estimation and measurement outside the head, but any such process was rendered unnecessary by the existence of a puffy swelling of the scalp in front of the right parietal eminence. What this might have to do with the tumour supposed to be inside was quite unknown, for it appeared to be, as it proved, entirely outside, and not attended with perforation, or, in fact, any but the most trifling alteration of the bone. But, situated in the region which must have been chosen, it was accepted as the guide, exposed in the middle of the flap turned down, and found to consist of pericranium, thickened and softened, though retaining its textural continuity, and at the end of the operation was dissected away. The skull was opened with a one-and-a-half-inch trephine, and a rounded tumour the size of a walnut, with a bit of adherent dura mater, was shelled out by breaking through the surrounding brain with the fingers.¹ The flap was attached with very few sutures, and held down by antiseptic padding and a close bandage. In consequence of the rather profuse discharge of serum on the third day, drainage-tubes were then introduced. There later followed pulsation over the hole and suppuration in their track, with increasing uneasiness and a return of paralysis that had almost gone, until by the nineteenth day matters were truly critical. Then, under chloroform, the almost healed flap was turned down again, and found, in the main, healthily united to the brain beneath. This, however, being oedematous and prominent, was sliced off level with the bone, revealing sinuses lined with puriform lymph, which was scraped away and the wound packed. No more bad symptoms of any kind were met with again, and the patient's immediate safety became quickly established. A large fungus, however, resulted, and showed no disposition to subside spontaneously, but was reduced by force on the thirty-second day, and the skin-flap laid down on it, and kept down by a plug of coins folded up in antiseptic gauze under a sheet of tin plate. Six days later the fungus was replaced by a chasm lined with granulating brain. Eventually satisfactory healing occurred, with gradual restoration of the patient's strength, which had become much reduced before the second operation, and remained low while the fungus lasted.

Total paralysis of the arm and much of the leg followed each operation, and lasted a day on the first, but ten days on the second occasion. Gradual improvement in this respect has continued up to the present time. He sat up daily after the thirty-sixth day, but was not soundly healed till the eightieth, by which time he could walk by himself in rather a staggering way. With the arm he was then still rather lame, and could not find or seize objects while his eyes were shut, or distinguish, for instance, a tall hat from a spectacle-case when holding them; but all this slowly improved, and at the end of five months he could turn over the leaves of a book singly pretty well when his eyes were open, though fumbling a good deal when his eyes were shut.

A great benefit owned by him is the total loss of headaches and the dazed feeling and manner that preceded operation. He expresses himself as quite restored to mental vigour and comfort. All traces of paralysis have long left the face, while the strength of the affected limbs has improved with each month, and the tactile discrimination and muscular sense of the arm are now completely restored.

A review of all the circumstances convinces me that the case is one of gumma, and a former medical attendant has since informed me that he treated him, six years ago, with iodide of potassium for a periosteal swelling of the sternum, which got well. The puffy swelling of the pericranium; the thickened, adherent, puckered, and depressed dura mater; and other anatomical features to be mentioned, favour this pathological view, which is supported, I believe, by the absence of optic neuritis as a clinical symptom. Good microscopical slides were kindly made by Mr. W. T. Thomas and by Dr. Glynn; those of the latter including some by a process of Weigert, showing nerve axis cylinders ramifying in the tumour, and proving its infiltrating character. The tumour showed the form of two convolutions on its surface, slightly paler than natural, somewhat prominent and hard (hard enough to prevent, in the trephine hole, pulsation of the exposed brain until the tumour was removed). When cut into it was very like a firm sarcoma—show-

¹ After section of dura mater all round the adhesion, which proved inseparable.

ing microscopically, however, no structure of sarcoma or of any proper tumour, but accumulations of round-cells and free nuclei around the vessels and in a fibrillar basis, alternating with patches of recognisable brain substance containing cortical cells, and with hazy fibrinous areas, indicating caseation. To the naked eye, however, no suggestion of caseation occurred.

On the question of injury, there is no certain history; but I am informed that there has been ample opportunity, the patient having in former years been severely knocked about in accidents of various kinds.

CONSECUTIVE SERIES OF CASES OF ABDOMINAL SECTION.

Read in the Section of Surgery at the Annual Meeting of the British Medical Association, held in Leeds, August, 1889.

By A. W. MAYO ROBSON, F.R.C.S.,

Honorary Surgeon, Leeds General Infirmary; Honorary Consulting Surgeon, Batley Hospital; Lecturer on Practical Surgery in the Yorkshire College of the Victoria University.

My excuse for bringing forward the appended series of cases is, that in these times of specialism and special hospitals, it is necessary that general surgeons, if they wish to retain the name, should prove that they also can perform abdominal sections safely, even in an ordinary hospital.

My cases, which extend over a period of five years, have not been selected in any way, and whenever a patient has been brought suffering from abdominal symptoms, statistics have not been considered, but an operation has been undertaken whenever such was indicated.

Many cases properly coming under abdominal surgery, such as lumbar nephrectomy and nephrotomy, lumbar colotomy, suprapubic cystotomy, typhilitic abscess, etc., where the general peritoneal cavity has not been opened, have not been included in the above list. Knowing how fallible diagnosis is, even with the utmost care, I am guided by the rule, "when in doubt, operate;" since I know that with ordinary skill a simple exploratory operation is not attended with serious risk, even if it be found that further treatment cannot be followed out, and I have more than once completed successfully the removal of a tumour which I commenced as an exploratory operation.

In giving the statistics of my ovariectomies (60 cases with 2 deaths and with 55 consecutive recoveries) I have separated the large tumours from the so-called diseased appendages; not because operation in the latter class of cases is simpler, for as a rule it is attended with very much greater difficulty; but because of the views held by different surgeons on the oft-discussed question of the advisability of operating on them. I do not understand how anyone can doubt the wisdom and justifiability of performing a radical operation in these cases of pyosalpinx, hydrosalpinx, and adherent and diseased ovaries, and thus restoring the patient from a state of invalidism and constant danger to one of health; and fortunately it can be done with slight risk; for instance, in the twenty-nine cases here reported, all the patients recovered.

The ovarian tumours were many of them very formidable cases with multiple adhesions, and some of the tumours were of enormous size, for instance in one case, No. 7, 84 pints of fluid were contained in the cyst. The ages of the patients varied from 15 to 68 years. The two deaths were probably unavoidable, one from intestinal obstruction a week after the operation, the other from exhaustion after the removal of a huge suppurating multilocular tumour adherent to all the surrounding viscera. If, however, another case of intestinal obstruction after ovariectomy comes under my notice, I shall not hesitate to reopen the abdomen and try to remove the cause.

The deaths in the list of operations for myoma ought not to, and I believe would not, happen again in my practice; one occurred from hæmorrhage due to the imperfection of a Koeberlé's *serre-neud* which the nurse screwed to its utmost in my absence without arresting the bleeding; one from peritonitis after the removal of the appendages, owing to the insanitary condition of the room in which the patient was placed; and another from distension, which I should now quickly remedy by the administration of an aperient, as advised by Mr. Lawson Tait. This I regularly adopt in case of vomiting and distension, by giving a seidlitz powder every few hours, until purging occurs or flatus passes freely. The use of a sedative is very rarely required and is avoided if possible.

In the hepatotomies the wall of the empty sac was stitched to the skin and the cavity drained. In one of these cases a large washhand basin full of hydatids was removed.

The death from acute mania in the third week after nephrectomy was due to the news of the desertion of the patient by her husband being inadvertently communicated to her a few days after the operation. My other nephrectomies have been lumbar, and would therefore not come under abdominal section proper.

The successful gastrostomy was performed by a method described by Mr. Greig Smith in his work on abdominal surgery. It answered most satisfactorily and is not difficult to perform. The patient is now living, and has gained over a stone in weight, not a particle of food having been taken through the mouth since two days before the operation. Deaths after gastrostomy are due rather to the delay in treatment than to the operation itself; for instance, in my fatal case there was absolutely no attempt at union between the two peritoneal surfaces.

A paper on a series of cases of cholecystotomy has been accepted by the London Clinical Society; it is therefore unnecessary to enter into particulars, but it may be well to mention that the single fatal case was one of cancer of the head of the pancreas with persistent jaundice. This had nothing to do with gall-stones, but has to be given in the series, as cholecystotomy was performed. In future I should question the advisability of operating in the presence of persistent and long-continued jaundice, which is strongly presumptive of malignant disease.

The case of cholecystenterostomy will be reported in a separate paper. It was performed for a biliary fistula, through which the whole of the bile passed for fifteen months, the patient being now in perfect health.

The four fatal cases of enterotomy for intestinal obstruction were due to shock after prolonged operations. As the result of experience I now, in cases of acute intestinal obstruction, when operation has been decided on, make a small opening for exploration, and, if I cannot quickly find a removable cause, at once bring a loop of distended bowel to the surface and attach it to the skin, opening it either immediately or after hours or days, according to the circumstances. In this way I feel sure we may prevent such a heavy mortality, it being the long operation which kills by shock. Possibly in Senn's operation of "anastomosis by apposition with decalcified bone plates" we have a method of materially shortening the process, and, at the same time, avoiding a faecal fistula.

The case of enterectomy for gangrenous intussusception, in which four feet of bowel were removed, occupied too much time, and would have been materially shortened, if, instead of employing the Czerny-Lembert sutures, Senn's modification of Jobert's method of enterorrhaphy had been employed.

The tubercular peritonitis cases all recovered from the operation, and were relieved either temporarily or permanently. From what I have seen of laparotomy in such cases, it would seem that cure is most likely to ensue when there is effusion into the peritoneal cavity, and where there is not much matting of the viscera.

Perforative peritonitis, with or without operation, is about equally fatal, and, although the three cases in which I have operated have died, I do not despair of surgery getting infinitely better results than can be obtained by the *laissez-faire* policy; but to succeed, it is necessary to operate early, or as soon as the initial shock has been overcome, and to spend as short a time as possible over the operation. If the perforation can be easily found it should be sutured, but if not lavation and drainage of the peritoneum is the next best procedure. In pelvic abscess, opening and draining through the peritoneum has given good results; but as the British Gynaecological Society has accepted a paper on the subject, it is unnecessary to enter into further details.

In all the hernia operations a radical cure was performed by closing the peritoneum and bringing together the fibrous edges of the hernial aperture. Out of fifty-nine operations, fifty-two recovered, and out of twenty-nine radical cures, one patient was lost, and he died from pulmonary congestion, apparently due to the use of ether as the anæsthetic, the parts concerned in the operation being in perfect condition. I do not think it is too much to say, that death ought never to occur from strangulated hernia if the case be operated on sufficiently early; but even yet it is not uncommon to hear of opiates being given for several days, and taxis being repeated over and over again before relief by operation is sought. It seems to me that in strangulated

hernia, opiates should not be given, as they only mask the symptoms, and if moderate taxis under an anæsthetic does not effect reduction, the aid of surgery should be sought at once, within a few hours of the occurrence of the strangulation.

In advising a radical cure of hernia, my rule is, that whenever a hernia in a person of fair health cannot be comfortably kept up by a truss, it should be operated on, and, except in the case of huge herniæ adherent to the sac, the operation is not attended with material risk.

As I am a firm believer in antiseptic surgery, I need scarcely say that all operations are performed with antiseptic precautions, although the spray is not always used, and when employed it is only in the form of a cloud over the field of operation, never as a spray directed into the abdomen.

In washing out the abdomen either hot boracic lotion or water recently boiled, is employed.

Drainage is only employed if the peritoneum have been much soiled, or if there be any fear of oozing from torn adhesions.

For the arrest of hæmorrhage I rely chiefly on sponge pressure within the peritoneal cavity, and on pressure-forceps in the parietes, except in the case of fair-sized vessels, when cat-gut ligatures are employed.

For healthy adults ether is the usual anæsthetic, but for children and old persons, and for those suffering from any tendency to pulmonary trouble, I prefer the A.C.E. mixture.

Dry dressings of salufer wool are usually applied, a single layer of gauze moistened with a solution of perchloride of mercury "1 in 2000" being placed immediately over the wound.

The appended table shows at a glance the series of cases to which reference has been made:—

	Recovered.	Died.	Recovered.	Died.	Total.
Ovariectomy for large tumour. One ovary removed, 27; both ovaries removed, 5:					
Cystic	24	2			
Solid	4	0			
Dermoid	2	0			
	30	2			
Ovariectomy for diseased appendages. One ovary removed, 4; both ovaries removed, 25:					
Chronic ovaritis with cystic disease and salpingitis	16	0			
Hydrosalpinx	7	0			
Pyosalpinx	6	0			
	29	0			
			59	2	61
			55 consecutive recoveries.		
Myoma of uterus			14	2	16
Hysterectomy, suprapubic			1	1	2
Hepatotomy for hydatids			2	0	2
Nephrectomy, abdominal			0	1	1
Gastrectomy			1	1	2
Cholecystotomy			13	1	14
Cholecystenterostomy			1	0	1
Enterotomy, for intestinal obstruction			10	4	14
Enterectomy			0	1	1
Opening and draining for:					
Tubercular peritonitis			5	0	5
Perforating peritonitis			0	3	3
Traumatic	0	1			
Gastric Ulcer	0	1			
Intestinal ulcer	0	1			
Pelvic abscess			6	0	6
Herniotomy for strangulated hernia			24	6	30
Umbilical	0	2			
Ventral	1	0			
Inguinal	8	4			
Femoral	15	0			
Radical cure of hernia			28	1	29
Umbilical	4	0			
Ventral	2	0			
Inguinal	16	1			
Femoral	6	0			
Exploratory operations			5	3	8
Malignant disease	4	3			
Tubercle	1	0			

BELFAST ROYAL HOSPITAL.—The report presented to the annual meeting of this institution showed that 2,361 intern and 26,580 extern patients had been treated during the year. The mortality rate was 5 per cent. in the medical wards, 2.7 per cent. in the surgical wards, and 4.2 per cent. after operation. Clinical instruction had been given to 212 students during the year. Dr. J. W. T. Smith had resigned his post of staff-physician, and had been succeeded by Dr. J. A. Lindsay. Dr. Stafford Smith had been elected assistant-physician.