suffered very intensely during her menstrual periods, and had profuse floodings. She did not express any desire for my professional assistance, but, unfortunately for herself, spent the whole of her earnings in wandering about from one practitioner to another, without any benefit from the numerous pessaries with which she was treated, until she was obliged to give up her work and enter a hospital. After she left my service, I heard something more about the details of her case, and that, combined with the information which I subsequently got from herself, was to the effect that she had received a gonorrhoeal infection very soon after marriage, and had never been well since that time. After she had been treated, without any good effect, in various institutions, she came to me as an out-patient in March of this year, when I obtained from her a complete statement of her history, and, on making an examination, was easily able to diagnose chronic inflammation of the tubes. I operated on April 2nd, 1884, and removed both tubes occluded and distended with pus. The ovaries did not come out with the tubes, and I did not think it necessary to remove them. The patient was immediately relieved from distress, has not menstruated since, and has remained for now eight months perfectly free from pain, and is earning her living with perfect satisfaction as a domestic servant."

"If I had exercised a little more curiosity about the ailment of this poor woman whilst she was in my own service, I would have rendered her a distinct benefit in shortening her sufferings by at least three and a half years, and I regret very much that I allowed her to waste her money and continue her sufferings for the want of a little judicious inquiry. The operations themselves in these cases are far more difficult than any operations for the removal of cystomata; indeed, one distinguished author has gone so far as to say that they are so difficult that the performance of them is quite unjustifiable, an opinion in which, of course, I do not coincide. It is to me extremely satisfactory to learn that, after a discussion of this subject for the comparatively short period of eight years, every fact that I have stated, and every conclusion that I have made, has been already completely confirmed by independent observations; and that, no matter what be the vigour of the denunciations levelled against this advance in abdominal surgery by one or two of the passing generation, the result is that we have a conclusive professional verdict in favour of relieving the enormous amount of suffering endured by women from chronic inflammatory disease of the uterine appendages."

A CASE OF CHOLECYSTOTOMY: WITH REMARKS.

By JOHN W. TAYLOR, F.R.C.S.,

Out-Patient Surgeon to the Birmingham and Midland Hospital for Women.

THE operation of cholecystotomy is one of the latest additions to the art of surgery. Although mentioned as having been formerly performed, and in one instance successfully, so far back as 1825, in Good's *Study of Medicine*, advised in suitable cases by Dr. Thudichum in 1859, and actually performed with success by Dr. Bobbs in America in the year 1867, it was not until the year 1878 that it became a practical matter, seriously engaging the attention of surgeons, when, under the name of cholecystotomy, Dr. Marion Sims published his case of partial excision of the gall-bladder. This was followed, the next year, by the inauguration of an unbroken series of successful cases by Mr. Lawson Tait, and cholecystotomy became a recognised operation of surgery.

As it evidently has a wider future in store—a more satisfactory could hardly be wished for, in the light of our local experience—and as several questions of general interest in physiology and medicine, as well as in surgery, are involved, and are likely to find their solution in a careful study of cases of distension of the gall-bladder which have been submitted to operation, but little apology is needed for bringing forward any case which may serve to show points for investigation or discussion.

The case I have to report, which came under my care during Mr. Tait's absence in America, is briefly as follows.

A woman, aged 43, of dark complexion, thin, pale, and careworn in appearance, was sent to the hospital from Shropshire, suffering from an abdominal tumour on the right side, which she had noticed for about nine weeks. It was tender to touch, and caused a sense of weight and "dragging," more especially when she was lying on her left side. For twelve months she had been suffering from abdominal uneasiness, with occasional spasmodic attacks of indigestion; pain in her back, about the junction of the dorsal and lumbar spine; and had

been steadily becoming thinner. She had nine children. Menstruation had already ceased for nearly two years.

On examination, a hard, rounded, very movable tumour was found to the right of the umbilicus. No connection could be traced from it to either the liver or kidney. All round it, and, indeed, over the tumour itself, there was resonance on percussion. No fluctuation could be detected in the tumour.

The patient's bowels were regular; her urine was normal; her appetite fairly good; her sleep was much disturbed by indigestion and the dragging pains already mentioned. There was no history of jaundice.

I thought that the tumour was solid, and diagnosed it to be a solid tumour (probably cancerous) of the omentum, or a small hydatid tumour, in which no fluid had as yet formed.

On September 5th, I opened the abdomen, in the middle line, close to the umbilicus, and found at once that the tumour was a distended gall-bladder. Having placed some small sponges around it, to keep back the intestines and soak up any discharge that might escape, I punctured the cyst with a curved trocar and cannula, evacuating about eight ounces of thin muco-purulent fluid, seven ounces of which were collected and measured. I enlarged the opening in the gall-bladder to admit the passage of a finger, and found its mucous membrane thick and uneven, giving to the finger an exactly similar sensation to that experienced during digital exploration of the urinary bladder in a case of chronic cystitis. I could not find any gall-stone. Dr. Savage, who was present, kindly verified the examination. I sewed the opening in the gall-bladder to the sides of the incision in the abdominal walls, and closed the rest of the abdominal wound with sutures in the usual way, passing a short glass drainage-tube into the gall-bladder.

The patient made a good and uneventful recovery from the operation. Her temperature was never much above normal, nor her pulse above 86. There was considerable sanguineous discharge from the drainage-tube for the first two or three days, as is usual in these cases; and on the second day some flatulent distension, which was relieved by a turpentine enema.

The patient left the hospital about four weeks after admission, thoroughly relieved of all pain and distress, very satisfied with the result of the operation, but with a fistula from the gall-bladder, which was still discharging a little thin muco-purulent fluid. No bile had passed from the gall-bladder since the operation.

I had hoped, on failing to discover any gall-stone, that the condition of cholecystitis, which evidently existed, might be rather a cause than a consequence of obstruction, and that, with rest to the inflamed mucous membrane, ensured by free drainage of the contents of the gall-bladder, the swelling might subside, the cystic duct again become pervious, and bile appear at the external wound.

It is just possible, I suppose, that this may yet take place; at the same time, examination of all that I can find bearing on the subject has made me rather doubtful whether catarrh of the mucous membrane is sufficient of itself to produce so-called dropsy of the gall-bladder, without some more potent coexisting cause of obstruction.

REMARKS.—Several cases have been reported of abscess in or around the gall-bladder, followed by spontaneous opening through the abdominal parietes, and, in some instances, by discharge of biliary calculi; two of such cases, one under the care of Mr. Bryant, and the other under the care of Mr. George Brown of Islington, being assisted in their course by some operative measures nearly approaching the operation of cholecystotomy itself.

All of these cases of spontaneous evacuation that have been reported have, I believe, without exception, had a successful issue. The operation of cholecystotomy, as advised by Dr. Marion Sims, closely imitating the natural process, and meeting with happy results in the practice of Mr. Tait and Dr. Savage, is so full of satisfactory promise, that it has been a matter of surprise to me to find that the reported cases from the practice of other surgeons are few in number, and, with but few exceptions, confined to American and German sources.

The best synopsis of the literature on the subject is to be found in an article on Cholecystotomy by Drs. Messer and Keen, in the *American Journal of the Medical Sciences* for October, 1884, which contains a carefully compiled tabular statement of all reported operations, whether complete or incomplete, to the date of its publication. From this, and from the *Philadelphia Medical News* for December 20th, 1884, and the *BRITISH MEDICAL JOURNAL* for December 6th, 1884, in which still later cases are referred to, and from direct information kindly supplied by Mr. Lawson Tait and Dr. Savage from their operation-books, I find that the operation of cholecystotomy has been performed twenty-eight times since its introduction or revival by Dr.

Sims, in 1878; by Mr. Lawson Tait, thirteen times; by Dr. Savage, twice; by Dr. Keen, twice; and by Drs. Sims, Kocher, Ransohoff, Gardner, Eddowes, Courvoisier, Trendelenburg, König, Boeckel, and McGill, each in one case. At least twenty-one recovered; a fatal issue has been reported in four cases.

In each of these fatal cases, it is worthy of notice that jaundice existed at the time of operation; and that the operation was delayed until it was probably too late to hope for a successful issue; and, in each case, the tumour was previously aspirated or tapped; the condition found on opening the gall-bladder, in Dr. Keen's first case, being probably largely due to hæmorrhage from the aspiration-puncture. In two of the four fatal cases, no gall-stone was found.

Arguing from the data before the profession, when only the first of Mr. Tait's cases was published, the writer of the article on cholecystotomy, in the supplement to Ziemssen's *Encyclopædia*, not unnaturally concludes that the operation is scarcely justifiable; but the position has wonderfully altered since this was written. By the kindness of Dr. Savage and Mr. Tait, I am able to add to this paper a list of sixteen consecutively successful cases, which have occurred in the practice of the surgeons attached to the Birmingham and Midland Hospital for Women, a large number of these cases having come under my own personal observation. In all of the cases, I believe, but little or no jaundice was present at the time of operation. In three cases, no gall-stone was found. In one of these, the obstruction was found to be due to cancer, from which eventually the patient died. In all the remaining cases, thirteen in number, gall-stones were both found and removed. In one case, cholelithotripsy, from without the duct, was performed, in addition to the operation of cholecystotomy.

The importance, when no gall-stone has been found, of determining, if possible, whether the search for stone has been insufficient, or whether another obstruction is likely to exist, and of what nature, is sufficiently obvious, as further experience is needed to guide the surgeon as to the best course of action when no calculus can be felt. I believe I have read once of the cystic duct being stopped by a "lumbrius," but cannot recall the case sufficiently.

Perhaps, before closing this portion of the subject, some reference should be made to those cases of operation on the gall-bladder which, going beyond the limits recommended by Dr. Sims, cannot strictly be considered as falling under the title of cholecystotomy. To this class belong the case of Von Winiwarter in Dr. Musser's list, and several cases of extirpation of the gall-bladder performed by Langenbuch.

The mortality of the cases of extirpation has been stated to be very high, but I have not been able to meet with any authoritative account of them.

A curious example of confusion of ideas is afforded by a medical periodical, which, commenting on these cases so lately as the spring of 1884, I believe, refers to a case in which Sir D. Corrigan gradually established a fistula from the gall-bladder by means of a caustic issue, as the nearest approach which British surgery can offer to the daring of "this great surgical operation" of Langenbuch. Unconsciously the paragraph is sarcastic, for the operation of cholecystotomy, as directed by Dr. Marion Sims, in its reasonableness of design, facility of execution, and brilliancy of result, is nearly as far removed from extirpation of the gall-bladder, on the one hand, as it is from caustic perforation on the other.

At the commencement of this paper, I mentioned how much of general interest was bound up with the operation of cholecystotomy.

The question of the uses of bile may become harder than ever to understand, but easier to estimate correctly, when we see the whole of the bile daily discharged from the abdominal wound with but little effect for good or evil, as in the very interesting case of Mr. Tait's, in which the common duct remained obstructed by a gall-stone after cholecystotomy and removal of calculi from the gall-bladder.

The cure of this condition by lithotripsy from without the duct is one of the latest developments of surgical art and ingenuity.

The gain in clearness and precision of diagnosis likely to result from the more radical treatment of obstruction of the bile-ducts will, however, be perhaps the most widely appreciated by the profession.

In many cases of distension of the gall-bladder there is no difficulty. The history of biliary colic and passage of calculi, together with physical signs, make the diagnosis easy; but, in some cases, especially those in which the obstruction is due to a single calculus, or some other cause, there is evidently very great difficulty. An important aid to diagnosis will, I think, then be found in recognition of the diagonal line, in the direction of which the gall-bladder enlarges. This is to be traced from the normal position of the larger end of the gall-bladder (near the tip of the cartilage of the tenth rib on the right side) to the opposite side of the abdomen, crossing the middle

line slightly below the umbilicus. In the direction of this line a distended gall-bladder will, I believe, naturally lie.

As the gall-bladder enlarges, and its distance from the liver increases, so will its mobility increase, until, at or about the level of the umbilicus, it becomes remarkable. If to these signs we add the rounded character of the tumour, its condition of fluctuation, resiliency, or stony hardness, according to the degree of its distension, and the almost cachectic appearance of its possessor when worn with pain and anxiety, we get a collection of symptoms, which has often been only a source of mystery to the surgeon in the past, but which, in the future, will not unfrequently lead to ready recognition of the disease and direction for its cure.

Cases of Cholecystotomy.

No.	Date.	Operator.	Age.	Sex.	Single or Married.	Result and Remarks
1	1879. Aug. 23	Mr. Tait	40	F	M	Recovery
2	1881. Oct. 9	"	55	F	S	"
3	1882. Jan. 15	"	24	F	M	"
4	Oct. 13	"	39	F	M	"
5	1883. Jan. 5	"	28	F	S	" No all-stone found
6	May 6	"	35	F	M	" No gall-stone found; obstruction probably due to cancer; death some time after operation from this cause.
7	May 10	"	42	F	M	"
8	May 28	"	66	M	—	"
9	Oct. 6	Dr. Savage	50	M	M	"
10	Nov. 14	Mr. Tait	44	F	M	"
11	Dec. 20	"	44	F	M	"
12	1884. May 8	"	62	F	M	"
13	May 17	Dr. Savage	39	F	M	"
14	June 26	Mr. Tait	45	F	—	"
15	Aug. 6	"	63	M	—	"
16	Sept. 5	Mr. Tait	43	F	M	" No gall-stone found

A CASE OF PORRO'S OPERATION.

By FRANCIS IMLACH, M.D.,

Surgeon to the Hospital for Women, Liverpool.

ON January 8th, 1884, A. B., aged 32, was admitted to the Hospital for Women, suffering from extensive epithelioma of the cervix. She was pregnant with her fourth child, and her last menstrual period had ceased on May 16th. I first saw her, together with an almost precisely similar case (in a woman aged 34), in August 1883, and advised both to enter hospital for immediate treatment. The woman aged 34 came in, and abortion at the second month was induced on September 3rd, a portion of the epitheliomatous mass being scraped away at the same time. On the 17th she left us, materially relieved, though not cured. In the case of A. B., I proposed to remove the whole uterus, but the patient, dreading operation, delayed coming in. From August to the date of admission, there had been continuous, though not profuse, menorrhagia. In consultation, fears were expressed that cancerous infiltration of the pelvic glands had occurred, and that complete removal of the disease was impossible. It was determined to allow the pregnancy to continue, and only to interfere during parturition if the safety of the child were endangered. Labour commenced in the night of January 17th, and the membranes ruptured next morning. During the afternoon of the 18th, three hypodermic injections of ten minims of ergotine were given, as the pains had entirely subsided; at 8 o'clock, an attempt was made to dilate the cervix with Barnes's bags, but this only resulted in laceration of the tissues, and an increase of hæmorrhage. At 2 o'clock on the morning of the 19th, Porro's operation was performed, with the assistance of my colleague, Dr. Lupton, under carbolic spray. It occupied only twenty-five minutes. After the abdominal wall had been incised from the umbilicus to the pubes, an incision five inches in length was made into the anterior wall of the uterus. A strong uterine contraction closed this incision for one or two minutes, but on relaxation the foot was seized, the child extracted, and the cord clamped with forceps and severed. The uterus was then drawn out of the abdomen, and sponges were plunged into the abdominal cavity. As it was desirable to exclude cancerous tissue, the uterus was clamped pretty high, but both ovaries and tubes were included. The placenta was next removed, the uterus cut away, the sponges removed, and the abdominal wall closed with seven silk sutures. The patient died towards the end of the seventh day.

On post mortem examination, there was no sign of peritonitis; and until an hour or so before death, the temperature never rose above

98.6°, and the pulse was seldom as high as 100, and never above it. The child is now a sturdy little boy over twelve months old.

I fear Dr. Godson must add this case as an unsuccessful one to his list. Yet I think the death would be more fairly credited to the disease that remained than to the operation, though at the time it was ascribed, in part at least, to carbolic acid poisoning. It was, of course, unsatisfactory to be obliged to leave the epitheliomatous cervix, but the patient was in such an exhausted condition, that to have removed it would have been immediately fatal. Even Porro's operation had to be performed with a rapidity which, without efficient assistance, would have been impossible.

EXTROVERSION OF BLADDER.

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

Surgeon to the Leeds General Infirmary; Lecturer on Operative Surgery at the Yorkshire College.

THE following notes and drawings have been kindly furnished me by my house-surgeon, Mr. Herbert Child.

L. S., female, aged 8, was admitted on February 8th, 1884, suffering from complete ectropion vesicæ. The abdominal wall was wanting from the umbilicus to the pubes, while the orifices of the ureters were to be seen at the lower part of the triangular patch of vesical mucous membrane. On March 3rd was performed Wood's plastic operation for the deformity. Mr. Robson took a large square flap from the abdominal wall above the umbilicus, and turned it downwards, so that the cutaneous surface came into contact with exposed vesical mucous membrane. Pyriform flaps, one on each side, were taken

Fig. 1.—Original Condition.

from the lateral aspects of the abdomen, and twisted inwards on their attachments, so that the raw surface came into contact with the raw surface of the first mentioned square flap. When secured in position, the flaps entirely covered the vesical surface. The edges of the exposed surfaces on the abdomen were drawn together, and secured by hare-lip pins and sutures.

The temperature reached 103° on the evening of the day following operation, but was not afterwards noteworthy. The flaps united by primary union; but the surfaces from which they were taken became exposed by retraction of their margins (the tension was great), and had to heal by granulation. During the process of healing, retraction of the flaps, especially of the side-flaps, drew upward the lower margin of the square flap, exposing its cutaneous surface, and bringing into view a corresponding portion of vesical surface. Therefore, on May 15th, Mr. Robson decided to perform a second plastic operation. The prominent folds of integument forming the labia majora were incised for three inches vertically; and from the upper end of these cuts, incisions were carried outwards, so as to allow two triangular flaps of skin to be slid upwards. The square flap of skin made in Wood's operation was loosened at its attachment to the pyriform lateral flaps,

and turned downward, so that the cutaneous surface again covered the bladder mucous membrane. The newly made groin-flaps were approximated toward the middle line, covering the raw surface, and

Fig. 2.—First Operation, March 1st. Incisions marked.

secured for an inch and a half in apposition; while the upper margins were sutured to the newly refreshed lower margins of the pyriform flaps of Wood's operation. Hare-lip pins and sutures secured the parts; dressings of carbolic oil were used. Union took place by first

Fig. 3.—Appearance after Operation, March 1st.

intention. Some excoriation of the lower part, due to urine passing over it, was allayed by a weak alkaline lotion. The child's knees and hips were kept flexed for some time after the operation, to relieve the