

probably have relieved the obstruction before peritonitis set in, and should it be found impossible to introduce the tube otherwise, a 2-inch incision in the abdominal wall would allow the passage of the fingers into the abdomen, and they would guide the rectal tube into the sigmoid and allow a thorough washing of the bowel. Such evacuation can readily be conducted. What really happened here was—all the enemata before the last simply washed out the rectum; the last overcame the obstruction, due to a falling over of the greatly loaded sigmoid, but the patient was too far gone to be benefited by the result. The dilated and now almost powerless bowel discharged when change of position occurred, and gave free exit to the contents. In these cases the tide of symptoms ebb and flow—at one time ease, at another pain, but with each recurring attack of colic or retching the patient is less able to bear the distressing effects. Now, delay in relieving such cases is very grave; every moment renders less certain the result of operative interference. There comes a time of deceptive quiet which is only the lull before the storm. In this lull friends see every promise of returning health; the experienced surgeon sees only cause for regret that he had not sooner an opportunity of coming to the relief of overpowered nature.

The remarks which I think should conclude this paper are—1st. That I have never yet witnessed an instance of death from exploratory laparotomy. 2nd. That I can recall numerous instances of most gratifying results following its adoption. And 3rd. That I have been an unwilling witness of the havoc worked in the absence of that pluck and determination required to insist on its performance.

ART. VI.—*Report on the Abdominal Sections performed in the Gynæcological Wards of St. Vincent's Hospital, Dublin.** By ALFRED J. SMITH, Ex-Assistant Master, Rotunda Hospital; Examiner in Midwifery, Royal University; Professor of Midwifery, C.U.I.

I HAVE the honour of bringing under notice a Report on the abdominal sections performed by me in the gynæcological wards of St. Vincent's Hospital since my appointment as gynæcologist.

I performed abdominal sections during the six months in seven cases as follows:—

* Read before the Obstetrical Section of the Royal Academy of Medicine in Ireland, on Friday, December 23, 1892. [For discussion on this paper, see page 151.]

Table of Abdominal Sections.

| No. | Sent by | Name | Age | Married or unmarried | Date of operation | Nature of tumour | Peritoneum | | Remarks | Stitches removed | Union | Result |
|-----|------------------------------|--------|-----|----------------------|-------------------|--|------------|---------|--|-------------------------|-------|----------|
| | | | | | | | Flushed | Drained | | | | |
| 1 | — | A. A. | 46 | M. | April 6, 1891 | Unilocular ovarian tumour | Flushed | Not | Several fresh adhesions easily separated | April 14 | Good | Recovery |
| 2 | — | M.M.D. | 50 | M. | May 19, 1891 | Unilocular ovarian tumour | Not | Not | No complications | May 27 | Good | Recovery |
| 3 | Dr. Garry, Liverpool | S. B. | 22 | Unmarried | Oct. 21, 1891 | Dermoid cyst in right broad ligament | Flushed | Drained | Cyst was gaseous; was adherent to middle 3rd of the rectum; it burst during removal. | Some on Oct. 29th, 1891 | Good | Recovery |
| 4 | — | M. G. | 24 | M. | Oct. 11, 1892 | Hydroids follicularis of right ovary | Not | Not | No complications | Oct. 19 | Good | Recovery |
| 5 | Dr. Kelly, Eyrecourt, Galway | N. C. | 39 | M. | Nov. 2, 1892 | Large dermoid cyst showing teeth | Not | Drained | No adhesion; contents of cyst spilled into abdomen | Nov. 10 | Good | Recovery |
| 6 | — | M. R. | 20 | Unmarried | Nov. 4, 1892 | Multilocular ovarian tumour, size of 8th month pregnant uterus | Flushed | Drained | Both parietal and visceral layers of the peritoneum covered with villous growth. Contents spilled, and soiled peritoneum | Nov. 12 | Good | Recovery |
| 7 | Dr. Cox, Dublin | T. S. | 45 | M. | Nov. 16, 1892 | Parovarian cyst | Not | Not | Pedicle very long | Nov. 24 | Good | Recovery |

The Report in reality represents the work of six months, as I was prevented by an attack of illness, and subsequently by the usual summer vacation, during which the wards are closed, from devoting any longer time to the work of this department.

Thus, abdominal sections were performed twice for the removal of large unilocular ovarian tumours, twice for the removal of dermoid cysts, once to remove a multilocular ovarian tumour, once to remove a parovarian cyst, and once for the removal of hydrops follicularis of the right ovary—making in all seven cases with complete recovery.

In no case did the temperature reach 100° F.; in two instances—Cases No. 5 and No. 6—did the temperature reach 99.6° F. All the patients were able to be up on the 15th day after the operation except No. 3, who was not allowed up for six weeks. Most of the tumours have been already shown at this Section of the Academy, and the special points of interest were touched on; however, I hope I may be permitted to notice other points of interest in these cases now presented.

Case No. 2 developed a small hernia in the abdominal incision (3 in.), about the track of the second suture from the top. It is the size of a walnut, and first appeared about six weeks after the patient's return to the country. I ordered an abdominal belt; the hernia has not increased in size at the time of writing, and causes no discomfort; however, I have invited the patient to undergo an operation for its radical cure.

No. 3 presents many points of interest. The patient, a young girl, aged twenty-two, had enjoyed good health up to twelve months before admission, when one day, while lifting a gallon of water from a well, she was suddenly seized by pain in the lower part of the abdomen of so intense a character that it was necessary to carry her to bed, in a fainting condition. Inflammatory symptoms set in, accompanied by rigors and rise of temperature—the patient's condition was for a time critical; however, a discharge of pus by the rectum gave considerable relief, and it was hoped the case would clear up; at every motion of the bowels pus would come away—this continued up to three months before admission, when the discharge suddenly ceased; and with this cessation hectic symptoms of a marked character set in, and the patient's condition became pitiable. On admission she presented all the symptoms of chronic septic poisoning, even to the well-marked chloasma marks on the forehead and nose, the evening temperature reaching 103.5° F.

On examination under ether the uterus was felt pushed over to the left side of the pelvis and was tolerably movable, and an ill-defined elastic mass was felt to its right side of so indefinite a character that I had at first considerable difficulty in making a diagnosis; I thought it might be some curious intestinal displacement. This elastic mass, when pushed up out of the pelvis, gave a clear note on percussion; this added to my confusion; still I was positive as to the presence of a tumour, because the impulse of the outside hand was conveyed to the inside fingers, and *vice versa*.

I determined to explore, kindly assisted by Mr. M'Ardle. On opening the abdomen a tumour presented itself, which was tympanitic on percussion. Having satisfied myself that it was not an intestine but a tumour in the right broad ligament, I tore with my finger nail through the layer of broad ligament until I came to the wall of the tumour; the tumour shelled with great ease out of its bed, except for a slight adhesion to the middle third of the rectum; no pedicle was found. While enucleating an escape of foetid gas from the tumour took place. I thought I opened into the rectum, but after the most careful search could find no fistula; as a precautionary measure I thoroughly disinfected the cavity in the broad ligament by swabbing it with cotton wadding soaked in weak corrosive sublimate solution, 1 in 5,000. I stitched the anterior layer of the broad ligament to the abdominal wall so as to cut off the peritoneum from the danger of infection, then flushed with hot water, put in a Keith's drainage-tube, and packed with iodoform gauze. I saw the case in a few hours; the dressing was soaked to a considerable extent with a watery discharge. I left the drainage-tube in all night, and next morning I was astonished to find the entire dressing soaked with a strong-smelling *fæca* discharge, and I recognised that a *fæcal* fistula had formed. I will not go into the details of the many dressings, the constant irrigations, the change of the glass drainage-tube for one of rubber, and still no improvement; the odour was so offensive from constant eructation of gas it was obviously retarding the patient's recovery. I determined on draining and irrigating the patient's rectum. With this end I forcibly dilated the rectum, introduced a glass drainage-tube, which was kept in position, and thus the rectum could be constantly irrigated. The immediate result was most gratifying, the offensive smell almost disappeared, and the discharge through the fistula became greatly diminished

and gradually less and less, until it finally disappeared. The patient was dismissed December 22nd, 1891, a little over two months after the operation, with a small sinus; this has now completely healed up. [I take this opportunity of thanking you, Mr. President, for your kind attention to this patient during my illness.] This case, I think, shows that fistula of the middle portion of the rectum will close by granulation, and that the secret of success is the proper management of the bowels. Keep the rectum well drained, free from gas, and well irrigated.

In Case No. 4 I operated by elevating the pelvis on Trendelenburg's table. The patient complained of great pelvic pain the evening after the operation; it continued all night, the patient calling out for its relief; $\frac{1}{3}$ gr. morphin was given hypodermically with only temporary benefit, as the pains returned directly the morphin had lost its effect; the temperature and pulse remained normal. A discharge of blood from the uterus ensued, and then the pains disappeared; the discharge continued for two days, six napkins being required. Against this hæmorrhage I employed no treatment, as I considered it to be due to the sudden change of pressure in the blood-vessels of the uterus, brought about by the operation.

Case No. 6 was remarkable for the alarming high rate of the pulse—120 per minute; this rate was maintained all during the convalescence; and when the temperature rose on the third day to 99.6° F. I felt anxious; the quiet, contented expression of the patient, however, reassured me, and I was glad to have an opportunity of verifying the dictum of Mr. Lawson Tait, that the expression of the face is often of more importance in prognosis than either the temperature or the pulse.

Flushing the peritoneum with large quantities of hot water was employed in only three cases; it was not necessary in Cases No. 2, No. 4, and No. 7, as the peritoneum was not damaged or soiled in any way. I would have considered its employment meddlesome and unnecessary. In Case No. 5, although the peritoneum was slightly soiled by the spilling of the contents of the dermoid cyst, I did not flush, as my experience hitherto was that hot water seemed to have little or no effect in dislodging the greasy sebaceous material found in dermoid cysts. I cleansed as well as I could with cotton wadding moistened in a corrosive sublimate solution, 1 in 5,000. As a rule, I avoid sponging, the excess of fluid after flushing being removed by aspiration.

Drainage by Keith's glass tube was employed in Cases 3, 5, and 6. A strip of iodoform gauze was passed down the lumen of the tube to assist in draining by capillary attraction. In all cases where the drainage-tube was used I placed the patient in the permanent side position, the old position on the back being, to my mind, opposed to gravitation. The side position I found most satisfactory, as nothing could be aspirated from the drainage-tube when the dressing was changed—all discharge had come away. To prevent granulation growing into the perforations at the end of the tube, I simply rotated the tube through half a circle each time the case was dressed.

In Case No. 6 it was necessary to keep the drainage-tube in for three days, as the discharge was so free. This free discharge ceased after the bowels moved. I close the abdominal incisions by interrupted silk sutures, the peritoneum being included in each suture. The dressing employed is very simple—a powder of equal parts of iodoform and boric acid is dusted over the wound, over this a small strip of oil silk, then a layer of absorbent cotton, with protective and gauze, all held in position by strips of rubber plaster, and over all a flannel binder.

The after-treatment consists of giving hot water in teaspoonful doses as often as the patient requires it for the first 48 hours, then milk and weak tea. I avoid giving morphin unless absolutely necessary; for flatulence I find that twenty drops of spirit of cajuput with twenty drops of aromatic spirit of ammonia in a little water is safe and efficient. Purgatives are given the third morning after operation. I generally order 5 grs. of calomel, but in one case in which I ordered *mist. rosæ* (the saline mixture of the hospital) in a one ounce dose, I was greatly satisfied with its quick action. When the bowels did not act I gave a turpentine enema. In Case No. 3, where the bowel was damaged, a purgative was not given until the 8th day. Except where drainage was employed, the dressing was not removed until the 8th day. Before removing the stitches I took the precaution of saturating their free ends with corrosive sublimate solution, 1 in 1,000. I had no irritation in the suture track in any one case. All incisions seemed to heal by first intention.

Antiseptics.—I superintended, assisted by the sister in charge of the ward, every detail myself. The silk is boiled for half an hour in ordinary Vartry water; it is then placed on glass spools and kept in a bath of corrosive sublimate solution, 1 in 1,000, until

required for use. The blunt instruments are also boiled in Vartry water for one hour. I have given up the ordinary dry steriliser, as I considered it untrustworthy from the fact that bacteria and their spores, if exposed only to the influence of a dry heat, may lose their powers of development only in part. The cutting instruments are disinfected by absolute alcohol. No doubt boiling your instruments spoils them, but I prefer, for my part, the loss of my instruments to the loss of my patient.

The stages for rendering the hands aseptic are—1st. Trimming the finger nails. 2nd. Scrubbing for 3 minutes with a nail brush in a lather of carbolic soap and hot water. 3rd. Rinsing in carbolic solution, 1 in 100. 4th. Bathing in corrosive sublimate solution, 1 in 500, for one minute. If it be necessary to dry the hands, a dry corrosive sublimate towel is used.

The patient receives a hot soap and water bath the night before the operation. Immediately before operating, the abdomen is washed with ether and then sponged with a hot corrosive sublimate solution. All instruments are kept in hot carbolic solution, 1 in 100. The sponges used during the operation are thoroughly disinfected by soaking them in a weak solution of sulphurous acid and then are repeatedly washed in carbolic acid solution, 1 in 100. Dry corrosive sublimate towels are spread over the chest and thighs of the patient as a further protection against the danger of infection. The anæsthetic used is ether, and I must here acknowledge the thoroughly satisfactory way in which Dr. Marnell, House Physician, administered it.

It is to me a source of some regret that I have not a larger number of completed cases to bring forward, as from so small a number, even though uniformly successful, it is impossible to draw any conclusion or deduce any theory.

ART. VII.—*The Legal Duties of a Medical Practitioner.*^a By HENRY O'NEILL, M.D., M.Ch.; Pathologist to the Belfast Royal Hospital, and Student of King's Inns, Dublin.

LEGAL or State Medicine or Medical Jurisprudence is the science which teaches the application of every branch of medical knowledge to the purposes of the law. This necessarily implies that a medical jurist should have a thorough knowledge of all branches

^a An Address delivered before the Belfast Medical Students' Association at the Queen's College, Belfast.