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REPORT

OF

TEN CONSECUTIVE CASES

OF

ABDOMINAL SECTION

BY

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Report of Ten Consecutive Cases of Abdominal Section.

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Dr. R. B. Maury being called upon, made the following remarks:

I have not been able to prepare a paper, but will be pleased to report, as a contribution to the proceedings of the Society, my six months' work in Abdominal Surgery.

Most of the cases are complete; of others a full history cannot now be given, but it will be furnished before the transactions are ready for publication.

The first cases which I present come together naturally as illustrating a subject which is frequently brought before the general practitioner. I allude to the subject of chronic pelvic inflammation.

Until quite recently, this form of disease has been generally regarded and spoken of as an inflammation of the pelvic cellular tissue. Twenty-five years ago its true nature was fully revealed to us by Bernutz; but for some reason or other his teachings were not accepted at their real value until the knowledge gained from operations inside the abdomen and new investigations in the deadhouse have confirmed their truth in every detail.

After very careful study of this subject, I feel prepared to state that in the class of cases we are now considering it is not the cellular tissue which is involved, but the pelvic peritoneum; and that pelvic peritonitis is the characteristic feature in women who suffer from chronic pelvic inflammation.

Many of the cases have their origin in endometrial inflammation, which extends through one or both tubes to the peritoneum, and sets up an inflammation in the immediate vicinity of the ovaries.

The gonorrhœal poison does this very frequently, but most of the patients whom I see have never suffered from gonorrhœa. They date their sufferings from a miscarriage or from labor at term; and I have repeatedly had opportunities of observing the very beginnings of the disease in the puerperal woman before she has left her bed.

The women suffering thus do not generally present those grave symptoms which, in their aggregate, are denominated puerperal fever. They do have a moderate fever, with some soreness and a little pain, for several weeks after delivery, but their condition is not such as to give the practitioner great anxiety.

In these cases an exploration of the pelvis shows tenderness of the uterine body; with pain and tenderness upon pressure, and exudation of inflammatory products in one or both of the postero-lateral regions of the pelvis.

Other cases are wholly unconnected with parturition; the peritoneum, however, is inflamed, the ovary inflamed, enlarged and adherent.

In a third class the evidences of peritonitis, when the abdomen is opened, are slight, or perhaps absent, but the ovary is diseased, is diminished in size, its capsule is thickened and puckered, and its stroma evidently damaged in various ways.

So much for the etiology.

Now for the treatment.

An accurate practitioner who gives a fair statement of his results is bound to acknowledge that the treatment of these cases is unsatisfactory in the extreme; that it taxes to the utmost all the judgment and skill he can bring to bear upon them; that it is most trying to the patience of the woman, and that at last a cure is effected in many cases only by an operation for removal of the diseased appendages; and I may add that in exceptional instances, even after the ovaries and tubes are removed, and the resources of medicine and surgery have been exhausted, the woman is still an invalid and a sufferer.

As long as we regarded the pathological condition here as a chronic inflammation of the cellular tissue of the pelvis, there was theoretical ground for the hope that a cure might

be effected by prolonged rest, by counter-irritation over the abdomen and the roof of the vagina, and by vaginal tampons saturated with glycerine, which would deplete and give support to the walls of the dilated veins of the connective tissue. I say there was theoretical ground for the hope. The theory was fallacious and the hope was generally delusive.

I have had a large experience in the treatment of these cases in a private hospital where they were situated most advantageously for recovery; where they had rest, the hot water douche, the vaginal tampon of cotton and wool, applied daily for months. The strictest attention was paid to digestion, to the selection of food, to the securing of the beneficial influences of light and sunshine and cheerful surroundings. Of course they improve under such treatment, and some of them get well, entirely and permanently well. Many are only partially or temporarily benefited.

If there has been any cellulitis, it is removed, and peritoneal inflammation subsides, but adhesions, I am sure, undergo very little change. This treatment accomplishes but little where there is a deep-seated disease of the tubes in the way of a chronic salpingitis, with thickening of the walls, with or without pus; and I think it does nothing for organically diseased ovaries.

In addition to the treatment above mentioned, I have made use of the galvanic current, faithfully following the teachings of Apostoli and Engelmann, but up to the present time with doubtful results.

In no case have I resorted to abdominal section and removal of the appendages, until other means had been tried, at least for many weeks, and in most cases, months.

I will now present my cases.

Case I. Pyosalpinx with Cystic Ovaries—Removal of Appendages—Recovery.

Mrs. H. This patient, twenty-seven years of age, and married, with one child, dated her sufferings from her confinement three years before. Her symptoms were frequent headaches, derangement of digestion, extreme nervousness,

constant pelvic pain, irregular and painful menstruation, and the morphine habit.

There were the usual evidences of pelvic peritonitis, with tumor on each side of the uterus, especially the left.

She was under my treatment and observation for one year and steadily grew worse. Her condition was pitiable in the extreme.

The appendages were removed March 9th. The operation was difficult. Adhesions were firm and extensive. The left ovary was the size of a hen's egg, and was converted into a cyst, which ruptured in detaching the adhesions. The left ovary was largely cystic. Both tubes contained pus; they were not dilated, but their walls were thickened, and they felt like fibrous cords; the fimbriæ were destroyed and their external orifices occluded.

She left me in four weeks *restored to health*, and has continued well in every way.

I used a small Keith's drainage tube for six days with this case, and on removing it found that the omentum had insinuated itself through one of the small openings in the tube. Its removal was difficult and was followed by a sharp peritonitis. This was the only trouble encountered in the management of this case.

Case II. Chronic Ovaritis — Appendages Removed — Recovery.

Mrs. R. Four years before the operation this lady had come to me for the relief of dysmenorrhœa and vaginismus. She had then been married one year, but sexual intercourse had been impossible. Sim's operation for vaginismus was performed and she went home. Her husband then had intercourse with her once, and this was followed by conception. After that intercourse was impossible. Her child was born in due time. She passed through the puerperium satisfactorily, but her condition was in no respect improved. The vaginismus continued as bad as ever and menstruation as painful. Suffering thus for three years, she was brought to me last June a bed-ridden invalid.

An exploration of the pelvic organs without ether was impossible. She suffered constant pain in the pelvis, especially on the right side, and the pain was greatly aggravated by assuming the erect position.

She was in no sense hysterical, nor did she use opium.

The abdomen was opened on June 10th. I remarked at the time that I would remove the appendages, even though they might seem healthy, because of the woman's intense sufferings. The operation was very simple. There were no adhesions. The Staffordshire knot was used, and the incision, two inches in length, was closed.

The temperature never rose above the normal, and convalescence was rapid.

The tubes were free from disease, but both ovaries were small, shriveled and cartilaginous in feel, with wrinkled and thickened capsules, and presented a condition which I would say was one of chronic ovaritis.

Notwithstanding the simplicity of the operation and the favorable convalescence, this lady has not been restored to health. She has not menstruated since the operation; the vaginismus has been cured, and she has been relieved of the old pain, but she remains feeble, is unable to walk, and when she gets out of bed suffers a pain in the left groin.

It is possible she may in time entirely recover, but I am not very hopeful. I fear the operation was performed too late.

Case III. Chronic Ovaritis with Rigid, Unyielding Broad Ligaments—Appendages Removed—Recovery.

Mrs. McP., twenty-eight years old, refers her ill-health to her confinement three years ago. There was history of pelvic inflammation at that time, and since then I have had opportunity to examine her on three separate occasions. Uterine mobility was impaired, and there was great tenderness on pressure in the culs de sac, especially the right.

There was great mental depression, and her countenance indicated suffering. Digestion was deranged, and she had frequent headaches. The least exertion aggravated the pain in the ovaries. Menstruation was scant, prolonged and pain-

ful. She was treated for one month in the usual way, and the glycerine tampon applied nearly every day. Finding that the treatment was followed by no improvement, and having known her condition for three years, I advised operation.

The appendages were removed with much difficulty on December 3rd. Adhesions were easily detached, but the broad ligaments were so rigid and unyielding and contracted that it was very difficult to apply the ligature, which was done through a two-and-a-half-inch incision, rather by touch than by sight.

It would have been better done if I had made the incision four inches.

There was free hemorrhage, which was not stopped by hot water irrigation or sponge packing, and I then relied on Mr. Lawson Tait's plan by drainage, having the nurse to empty the tube every thirty minutes.

There was not enough blood lost to affect the patient unpleasantly, but it continued to come, so that the tube could not be dispensed with, and at the expiration of ten days there was bloody purulent discharge. After this, pure pus in abundance. No unfavorable symptoms arose. The pulse and temperature remained normal, and the patient rapidly improved in flesh and strength, being relieved of her dyspepsia and headaches and pelvic pains.

At the end of two and a half months, she is up and doing well, but has a small sinus at the lower end of the incision where the tube was.

The ovaries presented the appearance of chronic inflammation. Upon their surfaces were numerous cicatricial contractions, the capsule was thickened, and they were rather under size. In the left were many cysts; in the right there was hemorrhage into the stroma in two places.

The two cases which follow were pus cases, and their condition was very critical.

Case IV. Ovarian Abscess — Hæmatoma of Ovary — Removal of Appendages — Recovery.

Mrs. S. was brought to me by Dr. Fawcett, of Idaville, who fully appreciated the gravity of her condition and had diagnosed suppuration. She was thirty-four years old, and dated her ill-health from the birth of her first child, twelve years ago. She has had three children; the last was born three years ago.

For a year past she has menstruated every two or three weeks, and has repeatedly had profuse floodings lasting for ten or twelve days.

She suffers constant pain in the right hypogastrium, which extends down the limb to the toes. She is unable to walk. Of late her mental condition has been so unsettled that her family were anxious in regard to it.

She came to me November 26th, after having flooded nearly all the time since September 21st. She was put to bed and opiates administered every two or three days when the pelvic pain became severe. One week after admission the hemorrhage returned and was so profuse that the tampon was required night and morning for four days.

The uterus was found to be fixed in a position of retroversion. There was a tumor on each side of it, much larger on the right than on the left. Pulse and temperature normal.

The abdomen was opened December 27th.

The pelvic viscera were so matted together that their individuality was lost. After an hour's patient work, the appendages were removed.

The left ovary was three times its natural size and contained fluid. The right had to be aspirated before the ligature could be applied. Four ounces of pus and old blood clots were removed from it. Its stroma was entirely destroyed and its thickened capsule converted into a pus sac.

This case has been of great interest to me, because it throws light upon the causation of ovarian abscess. I refer to abscess of the ovary unconnected with the puerperal state. Nothing very satisfactory has been written on this subject so far as I have seen.

Henry Morris,* after alluding to the rarity of ovarian abscess, says: "Apart altogether from pregnancy and parturition, it may be excited by any chronic source of ovarian irritation, and may be preceded by many years of ovarian, uterine or other pelvic trouble."

In the case I am here describing the right ovary, after having been aspirated, removed and laid open, was found to contain still some pus and disintegrated blood clots. The left ovary was the seat of an hæmatoma. Quite four-fifths of its structure was destroyed by a blood clot, which, together with a reddish fluid, was surrounded by a firm wall of connective tissue. In a short period it is probable that disintegration of the clot and suppuration would have occurred in this as it had already done in its fellow.

I would, then, point out that hæmatoma must be one of the causes of ovarian abscess.

The Fallopian tubes were immensely hypertrophied; their walls were thickened and their lumen enlarged so as easily to admit a common grooved director. They contained no pus or other fluid.

During the operation hemorrhage was free, but by sponge packing and irrigation with warm water the patient was put to bed with a clean and dry peritoneum.

Pulse and temperature never rose above the normal, and she was out of bed on the nineteenth day.

I might say that this woman was restored to health just as soon as the effects of the operation were over with. She is in perfect health today, two months afterward.

Case V. Chronic Peritonitis with Ovarian Abscess—Abdominal Section and Drainage—Recovery.

This patient, thirty-two years old, the mother of two children, came to me from Stormville, Miss. She has been an invalid for five years; has suffered pain in left ovarian region for many months, and during the past year has been having a bloody discharge from the uterus nearly all the time. Coming to me November 8th, she was very anæmic, had constant

* International Encyclopædia of Surgery, Vol. V.

fever, with night sweats, and a spleen which came down below the crest of the ilium. Exploration of the pelvis revealed a retroverted, fixed uterus, with a swelling on the left side of it, and more or less exudation on all sides. There was also a stellated laceration of the cervix.

On December 29th the abdomen was opened. I had diagnosed pyosalpinx and proposed to remove the appendages. In this I was mistaken. The pelvic organs were so completely and firmly bound together by old adhesions that separation and removal were impossible. Douglas' pouch was obliterated. The uterus could not be distinguished from the other structures. The pelvic cavity was filled up by a confused mass of diseased organs, and all was roofed over by intestines firmly adherent around the circumference of the superior strait. In this roof there was an opening which exposed the abscess wall. This abscess occupied the left two-thirds of the pelvis. It was aspirated and four ounces of pus removed. Its wall was quite a half inch in thickness and so firmly bound by adhesions that the edges of the incision made in it could not be brought into the abdominal wall incision.

One of Keith's large glass drainage tubes was carried to the bottom of the abscess cavity, and *parallel* drainage of the peritoneum was established by a rubber tube, separated from the glass tube by a single stitch.

This was apparently a rather unsatisfactory state of affairs, but everything went well. The pulse and temperature sank to the normal, though for months she had not been free from fever. She ate well from the start, laid aside her hypodermics of morphia in ten days, gained rapidly in flesh, and in four days the rubber tube was removed.

Not so with the glass tube. It was soon exchanged for the rubber, and this was dispensed with in a month's time.

Two months after the operation she returned home with a small tube sinus, having gained flesh and strength, and being in excellent health.

At this time there were but few evidences left in the pelvic roof of inflammation, though the uterus was immovable.

Menstruation appeared about six weeks after the operation. It was scant and painless.

In the two cases which follow, the abdomen was opened for the relief of peritonitis.

Case VI. Intra-Peritoneal Hæmatocele Resulting in Suppuration and Septicæmia—Abdominal Section and Drainage—Recovery.

I was asked to see this case in consultation, by Dr. R. B. Nall, from whom the following history was obtained:

The patient was thirty-two years old and the mother of one child. She had had several miscarriages, and from time to time had suffered from hemorrhage.

She had been under the care of an irregular practitioner, who treated her by intra-uterine injections of cod-liver oil and tannin. The injections caused much pain. On the night after the fourth injection she became very ill; had severe abdominal pain, was pulseless, apparently bloodless, and looked as though she would die at once. Dr. Nall saw her in this condition and diagnosed hæmatocele. After a severe struggle for forty-eight hours she rallied, and then peritonitis set in.

It was five weeks after she was taken down when I saw her. Then the symptoms of septic poisoning were marked. She was having chills; her temperature ranged from 103 to 104, her pulse from 130 to 140.

There was a large fluctuating abdominal tumor, extending upward from the pelvis above the umbilicus and spreading laterally to the hip bones. On exploring this with a hypodermic syringe it was found to contain bloody pus.

Under such circumstances surgical interference was clearly demanded. The roof of the vagina was carefully explored, to see if an opening could be made there. The cavity was so filled up with inflammatory deposits that an operation through the pelvic roof seemed impracticable. No point could be found through which even an aspirator could be intelligently thrust.

On the 26th June, the day after my first visit, I opened the abdomen with Dr. Nall's assistance, and removed upwards of two quarts of coagulated blood and pus. The cavity was

carefully washed out with warm water, by means of a Davidson syringe, and a glass drainage tube inserted.

Within twelve hours after this procedure the temperature became natural, and the pulse fell from 130 to 100; and during the convalescence there was no increase of pulse or temperature.

The principal difficulty encountered in the subsequent management of the case, was to get rid of blood clots which could not be removed during the operation, and which remained adherent to the walls of the sac formed by the peritonitis. These clots decomposed, became very fetid, and were difficult to remove through the drainage tube. The cavity was washed out twice in twenty-four hours with plain warm water. Drainage tubes were dispensed with entirely after five weeks. The opening entirely closed, and the patient has been restored to health.

Case VII. Chronic Peritonitis with Effusion of Serous—Abdominal Section and Drainage—Recovery.

This young lady, twenty-three years of age, came before me early in October. The history of her case threw but little light upon its real nature. Indulging in all the gaieties of social life she found last April that she was losing appetite and suffering with nausea. For these symptoms she consulted her physician. Medicine gave no relief. She failed in flesh and strength; went from home for mountain air and mineral water, and in pursuit of health had spent the entire summer.

When I saw her she was emaciated to an extreme degree, was unable to walk without assistance, and presented the appearance of one in advanced phthisis. Menstruation had ceased in July. The pulse was 110, the temperature 99½ in the afternoon. The lungs were free from disease. The abdomen was enlarged, the swelling was symmetrical, fluctuation was distinct. The abdominal walls were sore and tender on pressure. The heart, liver and kidneys were free from disease, as far as I could ascertain.

My diagnosis was chronic peritonitis, probably tubercular.

The abdomen was opened on 5th October, three days after my first visit. The fluid removed was serum of a deep yellow color, in which floated large flocculent masses of lymph; under the microscope, inflammation corpuscles were found in large numbers. The pelvic organs were carefully examined and found to be free from all appearances of disease. The peritoneum was thickened and hyperæmic, but no signs of tubercle were discovered.

The cavity was simply emptied, not irrigated. A glass drainage tube of small size was introduced.

For some weeks the result was very doubtful. It was exceedingly difficult to feed the patient, and she sank very low. At her earnest request the drainage tube was removed, and sooner than it should have been. Some fluid was retained, purulent in character and sacculated on the left side, between the tube-opening and the ilium. The patient then began to improve, and a small tube was re-inserted. For weeks there was an area of induration on the left side, but this gradually disappeared. The patient has steadily improved, and at this date, February 15th, is entirely restored to health. The digestive functions are absolutely perfect. She has now grown fat, and the abdomen presents no signs of disease. She has menstruated once. The nature of this case I do not pretend to understand.

The three cases which now follow were abdominal tumors:

Case VIII. Small Ovarian Monocyst with Twisted Pedicle and Extensive Omental Adhesions—Ovariotomy—Recovery.

This patient came to me through the courtesy of Dr. Quinn of Vicksburg. She was a lady about forty-five years of age, and weighed two hundred pounds. She had a small abdominal tumor on the right side chiefly, and her history indicated that it had been there for several years. For a year or more she had suffered pain in the right side of the abdomen. Of late this pain had rendered her life very mi-erable, and at times the use of morphia had become necessary.

The abdomen was opened on 17th October. The appearance of the tumor showed that its circulation was obstructed,

the pedicle was twisted twice upon itself. There were no adhesions except to the omentum. A large portion of the omentum was removed. I presumed that the condition of the pedicle accounted for the pain from which she suffered.

There was no marked elevation of temperature, and convalescence was uninterrupted until the third week. She then complained of nervousness and sleeplessness, and had a coated tongue.

Her evening temperature for two days rose to 100°. Quinine was given and these symptoms passed away, and she was out of bed by the twenty-first day.

On November 20th she went home, as I thought, entirely restored to health; but soon afterward the old pains returned and she again suffered very much. What her condition is now I do not know.

Case IX. Uterine Fibroid — Pelvic Abscess — Hysterectomy — Recovery.

Mrs. J., of Plummersville, Ark., came to me October 15th, upon the advice of Dr. Algood, of that place. She had not been in good health for a year, and stated that in July last her physician discovered an abdominal tumor. Symptoms of inflammation were present to a marked degree, and in August there was a discharge of pus from the bowels.

She and her husband concurred in stating that the amount of pus discharged was enormous, and that during the twenty-four hours which followed the rupture of the abscess, the quantity could not have been less than a gallon.

Since July she had taken large quantities of opium to relieve abdominal pain, which was chiefly on the right side, and extended downward into the pelvis.

The bowels were constipated, and were seldom moved, except by medicine, which caused great pain. The fœcal discharges always contained pus, and at times the pus alone was discharged.

I found her much emaciated, very feeble and hardly able to walk. Her pulse and temperature were normal.

In the abdomen there was a fluctuating tumor extending upward from the pelvis nearly into the right hypochondriac

region. The left upper portion of the abdomen was not occupied by the tumor. The tumor was not movable, and did not extend deeply into the pelvis. I took it to be an ovarian cyst.

The lower segment of the uterus was clear. The location of the former abscess cavity could not be ascertained.

The abdomen was opened October 18th.

The tumor was found to be not ovarian, but a soft fibroid. An attempt to remove the ovaries failed. The left ovary could not be discovered, being bound down by inflammatory deposits. The right ovary and tube were spread out upon the tumor, high up. The incision was then extended above the navel and the tumor turned out.

Following the plan taught me by Dr. Keith of Edinburg, I applied locking forceps close to the uterus on the right side and then ligated the broad ligament from above downward. The ligament was then divided down to a level with the os internum uteri, and the serre nœud applied.

In closing the abdominal wound, care was taken to stitch the peritoneum closely around the pedicle.

Bantock's plan of dealing with the pedicle was followed. It was trimmed as closely as possible to the pedicle needles and then stitched. After this, pieces of dry, absorbent lint were packed around it.

The patient was put to bed with a pulse of ninety.

In a few hours some bleeding was found from the pedicle and the wire was tightened. The next day bleeding was discovered to come from a vessel in the pedicle, which tightening the wire did not control. This was promptly stopped by ligation *en masse*.

The patient did well. The pulse and temperature ranged, the one from 86 to 100, the other 98½ to 100.

On the tenth day there was pus around the stump. This was profuse on the twelfth and thirteenth days, and the temperature rose to 101 in the evening for two days.

With this exception, there was no trouble. The discharge of pus declined slowly. It ceased to appear in the stools, and I inferred that the old abscess was discharging by this channel. The pedicle separated on the eighteenth day.

The patient went home at the end of the fourth week. The tumor weighed ten pounds.

On February 8th she wrote me: "I am in as good health as I ever was in my life. The abscess quit discharging about December 15th. My monthly periods returned on me all right, and I am getting along just as well as I can."

I will add that the body of the uterus was cut through a short distance above the os internum.

Case X. Tubal Pregnancy to Full Term without Rupture—Removal of Dead Fœtus by Abdominal Section—Recovery from Operation—Death from Phthisis.

A few weeks ago Dr. Black called my attention to a woman under his care at the city hospital, and very kindly offered her for clinical purposes at the College.

She had been admitted August 5th, and the resident physician, Dr. Clark, had kept a careful daily record of her pulse and temperature for nearly three months. His record showed that during August the pulse was about 105 and temperature 101. During September the pulse had increased to 115 and the temperature, in the evenings, to 103. During October the pulse had reached 130 and the temperature 103 and 103½. And yet she was up and going about most of the day.

She stated that she had had four children. Something over one year ago she thought she became pregnant. She had all the rational symptoms of pregnancy—the abdomen enlarged; the movements of the child were distinct, and in June last they ceased, and she had felt no movements since.

She declared that nothing unusual had occurred during the pregnancy; there had been no symptoms of peritonitis; no pains or colics, or hemorrhagic discharges.

In June the impairment of health began; fever appeared, and a cough which she had before grew worse.

Examination of the abdomen revealed a symmetrical tumor reaching the epigastrium. This was firm and elastic and not movable. The uterus was five inches in depth, and the sound moved freely in its cavity.

An effort was made to introduce the finger into it for exploration, the patient having been etherized, but dilatation

with steel dilators was unsuccessful; the cervix tore and was closed by a silver wire suture; the uterus was high up and not very movable. The patient stated that there had been three slight menstrual returns since June.

There was well-marked tubercular deposit at the apex of the left lung in front, and less distinct evidences of disease in the right apex behind.

Feeling quite sure that the uterus was empty and that we had a case of abdominal pregnancy to deal with, the woman was submitted to abdominal section in one of the private rooms of the Hospital on October 22nd. She was anxious for the operation. Drs. Black, Edward Mitchell and Taylor assisted me, and a number of students were present.

The woman was very anæmic, as might be imagined, from having had fever for four months. Her pulse was 140 and temperature 103, as it usually was in the afternoon.

The abdominal wall was very thin, not thicker than my little finger. The tumor, on being exposed, was plainly covered with peritoneum. An effort was made to withdraw its fluid contents, but nothing flowed through the trocar. Inserting my finger into the opening made by the trocar, I found a fleshy mass, which proved to be the placenta. The placenta was symmetrically implanted across the median line, adherent to the anterior wall of the sac.

An incision being now made through the thick sac wall, and through the placenta also, the placenta was stripped off and removed. Then the removal of the fœtus was easily effected. Bleeding from the walls of the sac was controlled by pressure forceps.

There was but little fluid in the sac, and this resembled muddy water and was free from unpleasant odor. It was carefully removed by sponging, and the sac was cleansed with a solution of bichloride of mercury.

It became evident upon inspection, as much so as could be without a *post mortem* examination, that this pregnancy had occurred in the Fallopian tube; that the tube had not ruptured into the peritoneum in the early months; and that the fœtal sac had developed at the expense of both layers of the broad ligament.

The removal of the sac was considered, but found to be impossible; its pelvic attachments were firm and extensive.

The opening made in it was therefore closed and stitched between the edges of the abdominal incision. A glass drainage tube was passed at the lower angle of the wound to the bottom of the sac.

The fœtus was a full developed male child, with abundance of hair and perfect nails. It weighed five pounds, and there were no signs of decomposition. It had evidently shriveled. The placenta weighed one and a half pounds, and was unusually thick. Its blood vessels were nearly obliterated. Very little bleeding occurred when it was detached.

The operation was followed by no shock. The patient did well. The pulse and temperature were better than before the operation, and less antipyrin was required. She took food unusually well. The cough though was very harassing, and opiates were given to relieve it.

On eighth day the abdominal wound was found to have united well. The discharge from the drainage tube was moderate, and a rubber tube had been substituted for the glass one. The stitches were therefore removed and adhesive strips applied.

About midnight, after a severe paroxysm of coughing, the upper part of the abdominal incision was torn open and a portion of small intestine protruded.

This was at once replaced and sutures of silver wire introduced.

The patient's equilibrium did not seem to be materially disturbed by this procedure. Everything connected with the operation was satisfactory, except the strain on the sutures from the harassing cough.

The pulse and temperature continued nearly as they were before the operation, but the woman died from exhaustion on November 19, just twenty-eight days after the operation.

A few days before death a small intestinal fistula was discovered in the upper portion of the incision, probably produced by injury from one of the wire sutures, which had been dislocated by the cough.

At the autopsy both lungs were found extensively adherent to the chest walls. In the right lung there were cavities in the upper and middle lobes. There was a cavity in the apex of the left lung. On opening the abdomen there were evidences of a moderate adhesive peritonitis.

The abdominal incision had entirely healed on its peritoneal aspect, but not completely on its cutaneous surface. The small fœcal fistula at the upper angle of the wound seemed to have arisen from injury sustained by a dislocated wire suture.

The fœtal sac was completely drained, and was not larger than the fist. It was effectually cut off from the peritoneal cavity.

The pelvic organs were carefully removed, and it was then seen beyond all possibility of doubt that the fœtal sac was entirely extra-peritoneal, that the gestation had originated in the right Fallopian tube, and had developed between the folds of the broad ligament, downward to the pelvic floor, laterally to the pelvic wall, and upward into the abdomen.

The ovum in its development had lifted the peritoneum off from the bladder and the anterior surface of the uterus, while the relations of the peritoneum to the posterior uterine wall and to Douglas' pouch were not altered.

The sac extended quite to the pelvic and abdominal wall on the right side, but did not go beyond the left cornu of the uterus on the left.

At the time of the operation it was observed to be covered by peritoneum, and this was clearly shown after death.

The gestation was therefore entirely extra-peritoneal, and belonged to the variety, intra-ligamentous of Werth, or sub-peritoneo-pelvic of De Zeimeris.

No trace of the ovary was discoverable in the structures belonging to the sac, but on the left side the ovary was found much shriveled and otherwise changed in appearance.

This autopsy corroborates the view taught by Mr. Lawson Tait, that in extra-uterine pregnancy, no matter where the fœtus may be found, its development begins in the Fallopian tube, "and that it may become intra-peritoneal or extra-peritoneal, just as the tube happens to burst."

Dr. Berry Hart, in a valuable paper read before the Edinburgh Obstetric Society, July 13, 1887, presented drawings taken from frozen sections in two cases of advanced extra-uterine gestation. Of one of them he remarked: "The second case shows that abdominal gestation can be extra-peritoneal, a fact never hitherto demonstrated, although strongly contended for by Tait."

I am unable to present the results of a frozen section, as was done so beautifully by the Edinburgh professor; but my autopsy *has certainly demonstrated another case of extra-peritoneal gestation.*

In thus presenting results nearly free from mortality, as I have done here and in other reports to this Society, I would say that they are due, not to any special skill in operating, but to careful study and observation of the methods of those men, who, in this country and abroad, have done so much to perfect abdominal surgery.

Drs. R. W. and E. D. Mitchell, and Dr. W. W. Taylor, have, in every way, rendered me valuable assistance in the cases here reported.