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ARTICLE I.

THE HISTORY OF SIX CASES OF ABDOMINAL PREGNANCY.¹ By T. GAILLARD THOMAS, M. D., Professor of Obstetrics and Diseases of Women and Children in the College of Physicians and Surgeons, New York.

My experience in extra-uterine pregnancy extends to fifteen cases; of these seven were tubal, two interstitial, and six abdominal. All those of the last variety I propose now to relate, hoping at a future time to give an account of the instances of the first two forms which I have seen.

For the physiologist and pathologist many varieties of extra-uterine pregnancy exist which do not exist for the practitioner at the bedside. For him the ovarian, tubo-ovarian, tubo-abdominal, and other varieties are niceties beyond the appreciation of diagnosis, and he is forced to limit himself, as far as practice is concerned, to the classification of all varieties into, 1st tubal, 2d interstitial, and 3d abdominal pregnancies. These, by rational and physical signs, he may differentiate from each other, and in certain cases base the propriety of surgical interference upon his conclusion.

Although not attended by as great dangers as attach to tubal and interstitial pregnancies, the abdominal variety is a most serious aberration from normal gestation, and one which commonly destroys life.

In the first two forms the rapidly developing ovum is imprisoned in tissues which are inapt for great distention, and which rupture under its distending influence. In the third the foetal ball has at its disposal for expansion and growth the whole peritoneal cavity, the placenta encroaching in its search after nutriment upon the bladder, the omentum, the intestines, and any portion of the peritoneum within its reach.

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The events of this form of pregnancy are the following: first, the fœtus unnaturally attached and nourished may die in the early months of its life, become encysted, and in time be cast off through the rectum, the bladder, or the abdominal walls. Second, the pregnancy may advance to the end of the ninth month, when labour coming on nature makes a persistent effort to expel the child, but on account of there being no way of exit, fails, and the child with its envelopes is retained, and, becoming encysted, remains in its nidus for years, creating no disturbance by its presence. Third, the child shut up in its unopened shell acts as a foreign body, creates suppurative action in its envelopes, and becomes surrounded with pus in place of liquor amnii; or, the liquor amnii being absorbed, the fœtal bones become closely hugged by the walls of the cavity which contains them, and, acting as an intense irritant which sets up formation of pus, in this way lead to hectic fever from absorption of septic material.

All these events are illustrated by cases which will be now related.

CASE I. *Abdominal Pregnancy; Death of Fœtus at an early period of gestation, and discharge through the rectum, with Recovery of Mother.*—I was called by the late Dr. W. T. Walker to see with him Mrs. R., a French lady, who, after suddenly occurring amenorrhœa of four months' duration, began to suffer from pelvic pain and severe backache. This prompted an examination, when a tumor was discovered posterior to the uterus, which was pushed forward and upward by it. No diagnosis had been made until a few days before I saw the patient, when the passage by the rectum of a very minute bone, apparently one of the metatarsal, made clear the nature of the difficulty, and announced the fact that the extra-uterine fœtus was dead.

The patient's sufferings had been so great as to have made her resort to the free use of the hypodermic injection of morphia, and this was affecting her system very prejudicially. All that was done during the time that I subsequently attended her with Dr. Walker was to persuade her to break off this habit, a most difficult task, to regulate the bowels, and to attend carefully to nutrition.

Very slowly and painfully after many months all the little fœtal bones were expelled by the rectum, and the patient entirely recovered. For three or four years, however, her health was greatly depreciated in consequence of the difficulty.

CASE II. *Abdominal Pregnancy; Death of Fœtus early in gestation; discharge through rectum, with Recovery of Mother.*—This case was almost identical with that just related, except that the diagnosis was made by art and not by nature.

Dr. Olcott, of Brooklyn, presented me to the patient, giving me no history of the case at all, and the patient being instructed to avoid all allusion to his opinion.

I found that all the symptoms of normal pregnancy existed, so that no suspicion of any aberration from it would have been entertained but for two symptoms; one, frequent and irregular attacks of metrostaxis, the other, severe pain in pelvis and back, extending down the thighs, and in some degree seeming to impede defecation.

Examining her with my mind free from bias, I made a pretty positive diagnosis of abdominal pregnancy, basing my opinion upon the fol-

lowing data: 1st. All the signs of normal pregnancy existed; mammary, gastric, menstrual, etc. 2d. The uterus though enlarged was smaller than it should have been at that period of utero-gestation. 3d. The uterus was lifted up out of the pelvis, and pushed forward by a soft, elastic tumour which did not present the history or physical aspects of an imprisoned ovarian cyst or of hæmatocele. 4th. Emboldened by these signs to probe the uterus, it did not present the appearances of being occupied by the product of conception.

Had any doubt existed in my mind, I would have urged on Dr. Olcott the introduction of a sponge tent, but I felt satisfied, and found that he had himself arrived at the same conclusion.

As the locality of the tumour, its fixation in Douglas's pouch, and the fact that none of those peculiar rending and spasmodic pains which before the fourth month usually give premonition of and probably are instrumental in producing rupture in tubal pregnancy, existed, it was decided to keep the patient under close observation, and to wait. In a short time afterwards foetal bones were discharged by the rectum, the sac gradually emptied itself, and the patient entirely recovered. I strongly suspect that the thorough examination made by Dr. Olcott and myself, produced the happy result of the death of the foetus.

CASE III. Abdominal Pregnancy; Laparotomy performed at the end of eleventh month of gestation, with Recovery of Mother.—On the 13th of April, 1876, Dr. James Hadden, of New York, sent to me for examination Mrs. R., aged 26 years, a native of New York State, who had been married six years and had had one child, now five years old, and two abortions, one four years, and the other two years ago.

No peculiarities had developed in connection with the pregnancy or labour of five years ago, except that during the former she had menstruated regularly with the exception of one month, and that after the latter, she had suffered from an attack of puerperal fever, which had confined her to bed for six weeks.

Seven months before the date here given, she began to suffer from nausea and vomiting, and very soon after this time she had two or three attacks of intestinal trouble, which were marked by severe pain, retching, purging, and tympanites. At her menstrual epochs metrorrhagia then developed itself. Movement always tended to develop the unpleasant symptoms, or to increase them if they already existed.

About this period Mrs. R. declares that she distinctly felt the movements of a child in her abdomen, which was quite large, and came to the conclusion that she was pregnant. As a number of obscure symptoms existed, she called on Dr. Hadden, who agreed with her in her opinion, and fixed the term of pregnancy at about three and a half months.

During February she had very distinct "bearing-down pains," and at that time it was thought that labour would come on in a few days. She had also intense backache and pains in the side and abdomen. Sometimes these were continuous, at others intermittent. They were often so severe that morphia was administered for their relief.

Upon her visit to me, April 13, 1876, the patient was much emaciated; her temperature $101\frac{1}{2}$ to 102 towards night; the surface was dry during the day, but profuse perspirations occurred every night; and the eyes presented that peculiar brightness so commonly noticed in hectic fever. At this time she was convinced that she had been in error as to her pregnancy, yet whenever she referred to the subject of the recognition of the

fœtal movements, she did so as one does who is convinced against her own convictions.

Upon examination I found that she presented an abdominal tumour as large as that created by the uterus at the full term of pregnancy. It yielded superficial fluctuation everywhere; no solid element appearing at any point, and everywhere over its surface percussion evidenced complete dulness. The linea alba was rendered dark by deposits of pigment, and the skin of the abdomen showed where great distention had created lineæ albicantiæ.

Upon vaginal examination the uterus was found anteverted, and I was much surprised to discover that it, as well as the other viscera of the pelvis, was fixed as if by an old attack of pelvic peritonitis. With some difficulty and a great deal of care, I passed a small uterine probe to the fundus, and found that the length of the uterine cavity was three inches and a half, perhaps a little more, but this was all that I attained to.

The patient, although, as I have stated, thoroughly convinced that she was not pregnant, and fully persuaded that she had an ovarian tumour, seemed so clear in her declaration and description of fœtal movements in the earlier periods of her illness, that I examined the mammæ very carefully and discovered in darkened areolæ and hypertrophied glands evidences which decided me upon removing a large amount, if not all, of the fluid in the tumour before committing myself to a diagnosis.

Accordingly, upon the 22d of April, I removed by the aspirator of Dieulafoy four quarts of a sero-purulent fluid which contained albumen in large quantities, and resembled very closely fluid from an ovarian cyst, the walls of which have undergone inflammatory action. This, being submitted for examination to an excellent microscopist, was declared by him to present corpuscles which he believed to be ovarian.

I should have removed a larger amount of fluid, but when this had been withdrawn no more would flow. Believing that I had taken enough to enable me to make a complete chemical and microscopic examination, I withdrew the needle and found that the flow had been checked by obstruction of the canula by means of a pellet of white and dense lymph.

Palpation of the tumour now revealed the presence of a large solid mass within it, which was so movable that it could be rolled from side to side, and conjoined manipulation showed the uterine body fixed at the symphysis pubis, and somewhat larger than normal. I now made a positive diagnosis of abdominal pregnancy, and expressed the conviction, from which I never subsequently wavered, that the fœtus floated freely in a mass of sero-pus in the peritoneal cavity, that the pelvic roof was covered by a mass of consolidated lymph, and that the intestines, pressed toward the flanks, had been covered over and fixed there by the same material. This position I felt sustained in by the following facts: 1st, the existence of nausea and vomiting during the early months of the patient's illness, which disappeared, giving place to, 2d, distinct fœtal movements, about which the patient was so clear and confident that I could not divest my mind of a belief in their possible validity; 3d, the presence of a marked pigmentary deposit in the linea alba and the areola of the breasts; 4th, the presence of an enlarged though empty uterus, fixed, as were all the pelvic viscera, yet without evidences of pelvic peritonitis; and, 5th, the existence of a large solid body, which rolled around freely in the cavity of the abdomen. There may be those who will say that these evidences were too meagre for diagnosis. All that I have to say in reply is, that I thought otherwise, and had confidence in my belief.

The patient's family was informed of my conclusion, and gladly accepted the alternative of operation, as it was quite evident to them that death would be the inevitable result of further delay. The patient herself was left under the impression that ovariectomy was to be performed.

On the 10th of May I operated, at 3 P. M., at the residence of the patient, in the presence of Dr. Dusinger, of Lock Haven, Penna., and Drs. Jas. B. Hunter, H. F. Walker, Charles S. Ward, S. B. Jones, and James Hadden, of New York.

The patient having been etherized, an incision was made extending from the symphysis pubis five inches upwards towards the umbilicus, and carried down to the peritoneum. Had I been operating without a firm belief in the diagnosis of abdominal pregnancy, and under an impression that an ovarian tumour existed, I should at this point have, I feel sure, been led into an error which would have lost my patient's life. The peritoneum was so much hypertrophied that I should have peeled it off from its apparently loose attachment to the abdominal walls, under the impression that it was an adherent ovarian cyst.

Cutting through it, a large amount of such fluid as I have described as removed by aspiration, flowed away, together with several ounces of white coagulated lymph, in shreds and masses. Now passing into the abdomen my right hand, I discovered the breech and legs of a large child presenting at the pelvis, and by the unoccupied hand placed outside of the abdomen, I could distinctly feel the head near the ensiform cartilage. Seizing the feet, I extracted the child, and removed all the fluid and lymph contained within the abdominal cavity.

From the navel of the child the umbilical cord ran and attached itself to the peritoneal surface at the left iliac fossa. It was severed near the peritoneum, and the child removed. I now lifted the abdominal walls and examined the empty cavity of the abdomen. Nowhere could any viscus be discovered, except at the pelvic brim where the uterus could be seen anteverted, and fixed by a copious deposit of lymph. The intestines pressed aside and backwards were everywhere similarly covered and bound down. A large empty cavity, extending from the diaphragm above, to the true pelvis, presented itself to the view of my associates and myself. The placenta could not be seen, although the attachment of the cord showed where it must necessarily have been.

In a case of tubal pregnancy, in which I removed the foetus by cutting through the vagina about a year before this, I very nearly lost my patient from hemorrhage in consequence of an effort to deliver the placenta. This determined me to be very guarded as to any similar attempt here. Another fact which prompted such a conservative course was this: in removing the foetus in Mrs. R.'s case, I had scratched the peritoneum, over the promontory of the sacrum, very slightly with my finger nail, and this wound bled so freely and persistently as to offer me a foretaste of what would have occurred had I endeavoured to remove the placenta. The decision of this point constituted, I feel, a crucial one in the operation. The delay, exposure of the peritoneal cavity, tax upon nervous system, and loss of blood attending removal would, I think, have decided the progress of the case adversely.

The placenta was left alone, a large glass drainage-tube placed in the lower extremity of the incision, and this was closed by silver sutures involving the hypertrophied peritoneum. The operation, which, including closure of the abdominal walls, was completed in twenty-two minutes,

being concluded, the patient was put to bed, quieted by opium hypodermically administered, and sustained by milk. The child was found to be a finely-developed girl, thickly covered with vernix caseosa, not decomposed, measuring eighteen and a half inches in length, and weighing seven pounds. The cause of its death, which had evidently occurred some time before I was consulted, was quite evident. About its middle the funis was so tightly wrapped by a long hair, which was wound repeatedly round it, that its circulation was completely cut off.

After the operation, the temperature and pulse both subsided, the former from 102° to 98.9° , and the latter from 120 to 107. A source of constitutional irritation and toxæmia had been removed, and its evil results upon the nervous system went with it. I shall not give a day-to-day record of progress, but merely mention two important facts, and then conclude. The patient was now placed by me under the charge of Dr. S. B. Jones, who reported her as doing surprisingly well until the fourteenth day. Until this time a spontaneous drainage of sero-pus occurred through the tube, the bowels acted daily, pulse and temperature were satisfactory, and it was thought that all danger was past. On the night of the 24th of May, however, she had a slight chill, which was followed by high febrile action. The temperature went up to 104° , and the pulse to 130, and septicæmia seemed imminent. I saw her about 2 o'clock in the night, with Dr. Jones, and passing my finger deeply down into the abdomen, dislodged a mass of very fetid blood, which was washed out by a stream of warm carbolized water projected through the drainage-tube, or rather through the opening which its presence had kept patent. These antiseptic injections were kept up by Dr. Jones every eight hours, until after forty-eight hours all evidence of danger had subsided.

Still, as the placenta was retained, the abdominal wound was at one point kept open by the glass drainage-tube. Time proved the propriety of this course. Five weeks after the operation, just as we had decided to venture upon complete closure, Dr. Jones was sent for in great haste, and found a small portion of fetid placenta protruding through the abdominal opening. This he seized, and by gentle rotation removed the whole. After this the patient rapidly recovered, very soon left her bed, and now presents an appearance of such perfect health that, upon a recent visit to my office, I did not recognize her.

One or two points in connection with this case are worthy of special note, and I draw attention to them, as they may prove of value to future operators :—

1st. I believe that, had a positive diagnosis not been made before operation, the case would have ended fatally when the peritoneum was reached by the primary incision. Had it been supposed that an ovarian tumour presented itself, the peeling off of this from the abdominal walls, which would have been very easily accomplished, would likely have resulted in peritoneal sloughing and death.

2d. Had an effort at removal of the placenta been made, I think that, for reasons already assigned, disastrous consequences would have ensued.

3d. Had the abdominal wound been allowed to close by first intention, I think that the imprisonment of a putrid placenta would inevitably have created septic poisoning and its unfortunate train of consequences.

As I have omitted the daily record of pulse and temperature in this case, I will give it in the next, in order to show the gravity of such cases and the great advantage to be derived from antiseptic injections in the control of septic absorption in them.

CASE IV. Abdominal Pregnancy; Laparotomy performed at the end of seventeenth month with Recovery of Mother.—In November, 1877, I was consulted by Mary R., a negress, of Newark, N. J., who had been sent to me by her physician, Dr. Charles Young, of that city. She was 24 years of age, married, and had borne one child.

She gave the following history of her case: In June, 1876, the menses ceased and the abdomen began to enlarge, so that she supposed herself to be pregnant, and expected her confinement in March, 1877. At the usual time she felt the fetal movements, which continued to be perceptible until March. At that time she had a few pains lasting for two days, and some hemorrhage, but these symptoms passed off and no others appeared. After that time the movements of the child ceased entirely. The menses appeared at the next period, and have continued regular ever since, but the abdomen has not decreased in size. Upon making a physical examination the uterine probe showed the uterus to be empty, $3\frac{1}{2}$ inches in depth. Right latero-version was found to exist, and in the abdominal cavity a large movable tumor not connected with the uterus could be distinctly felt. The diagnosis of abdominal pregnancy was made, and eight ounces of dark-red fluid were withdrawn by the aspirator. This, being examined chemically and microscopically, was pronounced by a competent microscopist to contain the ovarian corpuscle and be unquestionably the fluid of an ovarian cyst—precisely what had been reported of the fluid removed from Case III.

At the time of operation the patient measured in circumference thirty-four inches over the largest part of the tumor. The operation was performed on the 15th of November in the presence of a large number of medical gentlemen. An incision four inches in length was made, extending from the pubes upwards, was carried down through the peritoneum, but was found to pass directly over the placental attachment. The incision was therefore carried upward through the navel. A large amount of darkish-brown fluid escaped from the abdomen, and I then lifted out a well-developed, nine-pound girl. The cord was very short, and twisted so tightly upon itself as to have caused, I thought, the child's death.

The child was decomposed nowhere except about the vertex. The placenta, three times as large as it would have been in normal gestation, was attached to the bladder and anterior abdominal wall. The cord was cut short and the placenta left undisturbed, the abdominal wound being closed in such a manner as to leave an opening for its escape. Duration of operation twenty-four minutes.

The patient rallied well, and was free from nausea or other discomfort for some time. I now give the record of pulse, respiration, and temperature, as kept by Dr. Van Vorst, the House Surgeon of the Woman's Hospital, who devoted himself to the care of my patient with an assiduity and zeal for which I here render my acknowledgments.

“Patient was quieted by a hypodermic injection of ten drops of Magendie's solution of morphia, and was ordered to be kept entirely upon a milk diet. 6.30 P. M. ($3\frac{1}{2}$ hours after operation), P. 108, R. 20, T. 99° ; axilla.

Nov. 16. 1.45 A. M., gtt. x Magendie, per orem. 8 A. M., P. 98, R. 24, T. 99° ; ord. milk $\bar{3}j$, lime water $\bar{3}ss$, e. 1 h. 12 M., P. 106, R. 18,

T. $101\frac{3}{4}^{\circ}$; slight bloody flow from uterus; slight pain; gtt. x Magendie, per orem. 5 P. M., P. 112, T. 102° . 6 P. M., P. 108, R. 24. 10 P. M., P. 112, T. 101° .

17th. Passed a comfortable night; milk ℥ij e. 1 h. 8 A. M., P. 104, R. 21, T. $98\frac{1}{4}^{\circ}$. 9.20 A. M., $100\frac{1}{6}^{\circ}$. 12 M., P. 110, R. 22, T. $102\frac{1}{2}^{\circ}$. 4 P. M., T. $101\frac{1}{2}^{\circ}$. 6 P. M., P. 103, R. 21, T. $99\frac{3}{4}^{\circ}$; ord. milk ℥iv e. 2 h. 8 P. M., P. 110, T. $101\frac{1}{2}^{\circ}$.

18th. 8.30 A. M., P. 120, R. 16, T. $102\frac{1}{2}^{\circ}$; quiniæ sulph. gr. x. 9.20 A. M., vomited. 12 M., P. 104, R. 22, T. $103\frac{1}{2}^{\circ}$. 2 P. M., quin. sulph. gr. x; beef extract given alternately with milk. 6 P. M., P. 111, R. 24, T. $102\frac{3}{4}^{\circ}$. 9 P. M., P. 124, T. 102° ; no pain or tenderness about abdomen; facies good.

19th. 8.15 A. M., P. 133, R. 28, T. 103° . 9 A. M., quin. sulph. gr. x. 10.15 A. M., vomited. 12.20 P. M., P. 126, R. 26, T. $103\frac{3}{4}^{\circ}$. 3 P. M., Dr. Thomas removed two stitches at lower portion of wound; a large quantity of fetid gas escaped; a catheter was inserted, and four ounces of very dark fetid fluid washed out; water strongly carbolized was then pumped in (by means of a Davidson's syringe) until it returned clear. 3.30 P. M. (immediately after the washing out was finished), T. $100\frac{1}{4}^{\circ}$, per vaginam. 7 P. M., P. 132, R. 24, T. 103° . 8.30 P. M., washed out; afterward T. $103\frac{1}{2}^{\circ}$, per orem. 10 P. M., T. $102\frac{2}{3}^{\circ}$; washed out by Dr. Thomas; afterward T. $102\frac{1}{8}^{\circ}$. 11.15 P. M., T. $100\frac{1}{2}^{\circ}$. 11.30 P. M., gtt. x Magendie, per orem.

20th. 1.15 A. M., T. $100\frac{1}{4}^{\circ}$. 4 A. M., P. 125, R. 20, T. 101° ; washed out; fluid not very fetid; slightly bloody. 7 A. M., P. 125, R. 20, T. 101° . 8 A. M., P. 130, R. 24, T. $100\frac{3}{4}^{\circ}$. 9.45 A. M., P. 130, T. $100\frac{1}{2}^{\circ}$. 10.30 A. M., quin. sulph. gr. x, per rectum. 12 M., P. 123, R. 25, T. $99\frac{3}{4}^{\circ}$. 3.30 P. M., P. 120, R. 23, T. 101° . 5 P. M., P. 140, T. $102\frac{1}{4}^{\circ}$; washed out. 6.30 P. M., P. 128, R. 28, T. $99\frac{1}{2}^{\circ}$. 9.30 P. M., P. 126, R. 26, T. $100\frac{1}{2}^{\circ}$. 12 M., P. 122, R. 20, T. $100\frac{1}{2}^{\circ}$; washed out.

21st. 5 A. M., T. 99° . 6.45 A. M., P. 120, R. 22, T. $101\frac{3}{4}^{\circ}$; washed out. 8.10 A. M., P. 100(?), R. 24, T. 100° . 12 M., P. 116(?), R. 22, T. 101° ; washed out. 3 P. M., P. 112(?), R. 26, T. $102\frac{1}{2}^{\circ}$. 5 P. M., washed out. 6 P. M., P. 110(?), R. 23, T. $102\frac{1}{2}^{\circ}$. 8 P. M., P. 130, T. $101\frac{3}{8}^{\circ}$. 9 P. M., P. 124, R. 28, T. 103° ; washed out.

22d. 2 A. M., P. 112, R. 24, T. $101\frac{1}{2}^{\circ}$; washed out. 6 A. M., P. 112, R. 22, T. $101\frac{1}{2}^{\circ}$; washed out. Since yesterday (Nov. 21st.) has had beef-steak three times a day, eggs, chicken broth, and ℥ss spts. vini gallici t. i. d., milk *ad libitum*. 12 M., P. 123, R. 24, T. 103° ; washed out. 2 P. M., P. 110, R. 26, T. 101° . 3.30 P. M., P. 114, R. 24, T. $101\frac{1}{2}^{\circ}$. 4 P. M., washed out. 7 P. M., ord. enema by Dr. Thomas; three good stools. 9 P. M., P. 100, R. 22, T. $100\frac{1}{2}^{\circ}$. 12 M., P. 99, R. 26, T. 100° .

23d. 3.10 A. M., P. 97, R. 21, T. $99\frac{3}{4}^{\circ}$. 6.40 A. M., P. 110, R. 32, T. $101\frac{1}{4}^{\circ}$; washed out. 9 A. M., P. 99, R. 24, T. $98\frac{1}{2}^{\circ}$. 12 M., P. 96, R. 26, T. $99\frac{3}{4}^{\circ}$. 3 P. M., P. 96, R. 22, T. 100° . 6.30 P. M., washed out. 8 P. M., P. 108, T. $101\frac{1}{8}^{\circ}$. 9 P. M., P. 104, R. 24, T. $99\frac{3}{4}^{\circ}$.

24th. 2 A. M., T. 102° ; washed out. 6 A. M., P. 110, R. 22, T. $101\frac{1}{4}^{\circ}$; washed out. 9 A. M., P. 98, R. 20, T. $100\frac{1}{2}^{\circ}$. 12 M., P. 110, R. 24, T. 102° ; washed out. 3 P. M., P. 116, R. 30, T. $101\frac{1}{2}^{\circ}$; 4.20 P. M., washed out. 6.10 P. M., P. 110, R. 24, T. $100\frac{3}{4}^{\circ}$. 9.15 P. M., P. 112, R. 26, T. $100\frac{1}{2}^{\circ}$. 12 M., P. 106, R. 22, T. $101\frac{3}{4}^{\circ}$; washed out.

25th. 7 A. M., P. 114, R. 22, T. 101° ; washed out. 9 A. M., P. 110,

R. 24, T. $99\frac{3}{4}^{\circ}$. 12 M., P. 100, R. 24, T. $101\frac{1}{2}^{\circ}$; washed out. 3 P. M., P. 103, R. 24, T. 100° . 6 P. M., P. 100, R. 24, T. $101\frac{1}{2}^{\circ}$; washed out. 12 M., P. 104, R. 24, T. $100\frac{3}{4}^{\circ}$; washed out.

26th. 6.30 A. M., P. 100, R. 24, T. 100° . 9 A. M., P. 100, R. 24, T. $99\frac{3}{4}^{\circ}$. 12 M., P. 96, R. 24, T. $100\frac{1}{2}^{\circ}$; washed out. 3 P. M., P. 120, R. 24, T. $99\frac{3}{4}^{\circ}$. 6 P. M., P. 118, R. 24, T. $101\frac{1}{2}^{\circ}$; washed out. 9 P. M., P. 100, R. 26, T. $100\frac{1}{2}^{\circ}$. 12 M., P. 109, R. 20, T. $101\frac{1}{2}^{\circ}$; washed out.

27th. 3.30 A. M., P. 103, R. 22, T. $99\frac{3}{4}^{\circ}$. 6.49 A. M., P. 99, R. 19, T. $99\frac{1}{2}^{\circ}$; washed out. 9 A. M., P. 104, R. 24, T. $99\frac{3}{4}^{\circ}$. 12 M., P. 112, R. 24, T. $100\frac{1}{2}^{\circ}$; washed out. 3 P. M., P. 109, R. 24, T. 100° . 6.30 P. M., P. 107, R. 24, T. $100\frac{3}{4}^{\circ}$; washed out. 9 P. M., P. 99, R. 24, T. $100\frac{1}{2}^{\circ}$. 12 M., T. 101° .

28th. 6 A. M., P. 92, R. 28, T. 100° ; washed out. 9 A. M., P. 100, R. 24, T. $99\frac{3}{4}^{\circ}$. 11.30 A. M., washed out; moved into chair. 12 M., P. 109, R. 22, T. $100\frac{3}{4}^{\circ}$. 3 P. M., P. 98, R. 22, T. 101° . 6 P. M., P. 96, T. $100\frac{1}{2}^{\circ}$; washed out; cavity appears much smaller, as judged by the quick return of the injected fluid. 12 M., P. 99, R. 22, T. 100° .

29th. 6.10 A. M., P. 96, R. 20, T. 99° ; washed out. 10.45 A. M., washed out; sat up in chair. 12 M., P. 120, R. 24, T. 101° . 3 P. M., P. 108, R. 21, T. 101° . 3.30 P. M., washed out; a chunk of the placenta the size of a walnut was removed, very much decomposed and fetid. 6.30 P. M., P. 122, R. 24, T. 102° ; washed out. 9 P. M., P. 106, R. 26, T. $101\frac{1}{2}^{\circ}$.

30th. 12.20 A. M., P. 94, R. 20, T. $101\frac{1}{2}^{\circ}$; washed out. 3.35 A. M., P. 99, R. 24, T. 100° . 6.45 A. M., P. 104, R. 22, T. $99\frac{3}{4}^{\circ}$; washed out. 12 M., P. 112, R. 24, T. $100\frac{1}{2}^{\circ}$; washed out. 3.30 P. M., P. 102, R. 20, T. 100° . 6.45 P. M., P. 112, R. 24, T. 101° ; washed out. 12 M., P. 100, R. 22, T. $99\frac{1}{4}^{\circ}$; washed out.

Dec. 1st. 6 A. M., P. 99, R. 22, T. $99\frac{1}{4}^{\circ}$; washed out. 12 M., P. 116, R. 24, T. $101\frac{3}{4}^{\circ}$; washed out; patient has not been feeling so well for last two days; appetite not so good. 3 P. M., complains of pain in bowels; ordered hot poultice. 4 P. M., two diarrhœa stools. 6 P. M., P. 114, R. 24, T. $101\frac{3}{4}^{\circ}$; washed out. 8 P. M., one diarrhœal stool. 9 P. M., P. 124, R. 28, T. $101\frac{3}{4}^{\circ}$.

2d. 12.10 A. M., P. 114, R. 24, T. 102° ; washed out. 6.30 A. M., P. 112, R. 22, T. $101\frac{3}{4}^{\circ}$; washed out; all food stopped but milk; brandy $\bar{5}$ j t. i. d. as before. 12 M., P. 125, R. 24, T. 102° ; washed out; a piece of placenta walnut size was removed; the amount of discharge is small but very fetid. 3 P. M., P. 120, R. 24, T. $103\frac{3}{4}^{\circ}$. 6.30 P. M., P. 118, R. 24, T. $101\frac{1}{2}^{\circ}$; washed out. 9 P. M., P. 112, R. 22, T. 102° . 12 M., P. 118, R. 24, T. $103\frac{3}{4}^{\circ}$; washed out.

3d. 3.20 A. M., P. 120, R. 24, T. $101\frac{1}{2}^{\circ}$. 6.30 A. M., P. 110, R. 22, T. 100° ; washed out. 11.30 A. M., P. 104, R. 26, T. $98\frac{1}{4}^{\circ}$; washed out. 6 P. M., P. 114, R. 24, T. $100\frac{1}{2}^{\circ}$; washed out. 9 P. M., P. 110, R. 24, T. $100\frac{3}{4}^{\circ}$. 12 M., P. 110, R. 24, T. 101° ; washed out.

4th. 6.45 A. M., P. 108, R. 22, T. $99\frac{1}{2}^{\circ}$; washed out. 12 M., P. 105, R. 25, T. $99\frac{1}{2}^{\circ}$; washed out; patient resumed ordinary diet. 6 P. M., P. 116, R. 24, T. $101\frac{3}{4}^{\circ}$; washed out. 12 M., P. 104, R. 20, T. 100° ; washed out.

5th. 7 A. M., P. 106, R. 20, T. $99\frac{3}{4}^{\circ}$; washed out. 12 M., P. 104, R. 20, T. 100° ; washed out. 6 P. M., P. 100, R. 20, T. $100\frac{1}{2}^{\circ}$; washed out. 12 M., P. 100, R. 20, T. $99\frac{3}{4}^{\circ}$; washed out.

6th. 6 A. M., P. 104, R. 22, T. $99\frac{3}{4}^{\circ}$; washed out. 12 M., P. 99, R.

20, T. 100° ; washed out. 6.30 P. M., P. 99, R. 20, T. $100\frac{1}{2}^{\circ}$; washed out. 12 M., P. 96, R. 22, T. $99\frac{1}{2}^{\circ}$; washed out.

7th. 7.30 A. M., P. 102, R. 24, T. $99\frac{3}{4}^{\circ}$; washed out. 12.30 P. M., P. 88, R. 20, T. 100° ; washed out; a small portion of the placenta removed; walked across room with assistance; sat up in chair entire afternoon. 6.35 P. M., P. 118, R. 24, T. 100° ; washed out; patient is not to be washed out at 12 M. any more, because morning temperature for last three days has been below 99° (corrected temperature) and discharge hardly fetid although puriform.

8th. 7 A. M., P. 100, R. 20, T. 100° ; washed out. 12 M., P. 108, R. 22, T. $99\frac{3}{4}^{\circ}$; washed out; sitting up in chair; walks about without assistance. 6.30 P. M., P. 110, R. 24, T. $100\frac{1}{4}^{\circ}$; washed out.

9th. 7.30 A. M., P. 100, R. 20, T. 100° ; washed out. 12 M., P. 100, R. 20, T. 100° ; washed out. 7 P. M., P. 100, R. 19, T. 99° ; washed out.

10th. 9 A. M., P. 89, R. 18, T. $99\frac{1}{2}^{\circ}$; washed out. 12 M., P. 100, R. 24, T. $99\frac{3}{4}^{\circ}$; washed out. 8 P. M., P. 99, R. 21, T. 100° ; washed out.

11th. 8 A. M., P. 92, R. 20, T. 99° ; washed out.

Patient to have cavity washed out only morning and evening. The index finger was introduced into the cavity and the remaining portion of the placenta felt very hard and dense. The return fluid is not fetid, and only very slightly puriform. The opening is closing rapidly, so that there is just room sufficient for the water to escape alongside of the catheter (No. 10). Put on house diet.

18th. Patient goes about the ward and assists the nurse. Washed out morning and evening.

25th. Patient to go home, being capable of washing out the cavity herself daily. Placenta still remains attached to abdominal walls. Patient to see her physician occasionally."

This is rather a lengthy and tedious detail of the progress of this case, and yet I offer no apology for its introduction. It appears to me that its value as an illustration of the great importance of antiseptic injections in such cases, and as a demonstration of what can be accomplished by faithful attention, removes the necessity of so doing.

CASE V. *Abdominal Pregnancy of twenty-two months' standing; Fetus delivered by Laparotomy, with Recovery of Mother.*—As this case has been fully reported by Dr. E. Frank Coates, of Mystic Bridge, Ct., in whose practice it occurred, I extract his report from the *Proceedings of the Connecticut Med. Society*, for 1878, and give it entire:—

"I was first called to Mrs. J. W. M., aged 21 years and 6 months, an American by birth, and above medium size, April 30th, 1875. I found her pregnant for the first time, with general anasarca, indisposed to exercise much, and feared puerperal eclampsia. With appropriate treatment she went to full term, and May 21st I delivered her with the forceps, under chloroform, of a still-born child, after a labour of about twenty-four hours' duration. It was living a short time before its birth. Septicæmia followed. She had pelvic abscess, abscess in the thigh, and did not get well over the effects of the blood-poisoning for more than three months. After dismissing my patient in September, I was not called to her again until February, 1877, when her husband informed me that she was again pregnant, expecting to be confined about April 20th to 25th, and though she felt well, and very different from her former gestation, he wished me to call in some

time when I was passing, and it was convenient. I found her apparently well; functions normal; countenance good, cheerful, and doing the work for four in the family, and happy in it.

April 4. I was called, and found she had pains that came on the latter part of the previous night, resembling labour pains; made a hurried examination, pronounced the pains spurious, and gave an opiate, which soon quieted her, but she was exhausted beyond what is a common consequence of such pains, and was able to lie only on the right side. The evening of the 5th she vomited large quantities of bilious matter; the next day a bilious diarrhœa set in, which was checked with opium. I then gave a large dose of calomel, followed by castor oil. After this she vomited once every morning for some time, but the diarrhœa was easily controlled.

The discharges were of a clayey colour, for which I gave several blue pills, without any visible benefit. The urine, during all of this time, was normal in quality and quantity. She could lie only on the right side, except for twenty minutes at a time; she would sometimes be turned upon the left, but could not lie on the back. She was restless, requiring a small opiate once every night, and sometimes oftener, to keep her comfortable.

She did not have any more uterine pains, and after waiting about three weeks—the time of her expected confinement—I made another digital examination, finding the uterus high up as before, the os not dilated, neck not shortened, the head not presenting at the brim of the pelvis. The whole fœtus was on the right side, and so high that no part could be felt with the examining fingers from within the vagina. I had no sound with me, and desisted from further investigation, but had learned enough to inform her husband and mother of my fears.

May 5. She commenced to have a show—shedding the uterine mucosa—which continued without pain from day to day for some time. Her husband, getting extremely anxious, requested his old family physician from Rhode Island to see her. The consultation was held May 21st, when I had the patient etherized, so that she could be laid on her back, and introduced the sound three inches within the womb, and could feel nothing but its walls. The uterus had a slight left lateral displacement, and was somewhat flexed to the right. The fœtus was dead, lying on the right of the median line, between the floating ribs and ileum, but the whole abdomen was distended. My counsellor had seen nothing of the kind; he evidently knew but little about it, but agreed with me in everything.

June 27. The show continues, and to-day she had a fall upon her knees, which caused some metrorrhagia, which was soon followed by a dirty, sanious, watery discharge. Afterward she was so constipated that the whole rectum became impacted with fœces, so as to require large injections of soap and water, often repeated, and their removal caused great pain. I see the patient once a week. She is weak, emaciated, and the show continues—which, it will be remembered, commenced May 5th—with occasional passages of a dirty brown, sanious water, and, it is thought, there is more of this discharge when she lies on the left side, which she cannot do except only for a short time; but her countenance has improved. She looks brighter, is more cheerful, can eat somewhat better, but milk is her chief support. She sleeps well, but requires opium in some form to keep her easy.

July 18. There has not been so much show or watery discharge for the last week. The abdomen is greatly distended, and has been for several weeks. This night a watery, dirty discharge commenced anew, with vomiting, and pain in the back, somewhat severe. The night of the 19th she saturated everything that was laid under her, even to the mattress, and the discharge continues more or less profuse for six days without loss of the patient's strength.

The 25th I find the abdominal enlargement very much lessened, and can feel the outlines of the fœtus. Is this the liquor amnii? and is it discharged through the right Fallopian tube?

The 30th I am called, and find loss of appetite, with occasional severe spasmodic pains in the back, but not much sanious discharge for the last two days.

31st. Patient is more comfortable; has had no severe pains since last seen. The watery discharge commenced again last night; this forenoon it has been quite abundant, and for the first time somewhat offensive.

August 1. I met Dr. C. M. Carleton in consultation, who agrees with me in the course pursued, and also that, unless the condition of the patient could be improved, gastrotomy would result in death.

6th. Has had very little show for about three weeks, no severe pain since last seen; the same discharge continues. She is getting smaller, her appetite is better but not good, and she has sat up three hours in a day. The 10th she is not as well; appetite very poor, but no severe pain. The night of the 14th had severe pain in the stomach which lasted until morning, and greatly prostrated her; the same discharge continues.

22d. No pain, not as much discharge and this has changed; a membranous, meaty discharge is mingled with it.

29th. Quite comfortable; better appetite; some pain, but not severe; discharge muddy-looking but not so membranous.

September 5. The shreddy, muddy discharge continues, general health improved.

12th. The discharge continues muddy and pulpy, and yesterday it was judged that a teacupful of settlings was discharged, and a finger-nail was found on the cloth she wore. She is in good spirits and thinks she will get well. From the 19th to October 8th she is quite comfortable and seems to improve in appetite and countenance. There is less of the meaty discharge. She has sat up two hours and more at a time, and walked into the kitchen.

October 16. She has not been as well for several days; there is more discharge and thicker, like decayed chopped meat. Countenance has a hectic flush, pulse frequent and irregular; bowels in good condition and have been for a long time; smell of discharge at times quite offensive.

22d. Not much change, but she has discharged two semi-putrid meaty pieces larger than butternuts.

29th. Discharge about the same in quantity but less meaty and less offensive. She was 24 years old yesterday.

November 7. More pain, appetite fair, bowels loose but not a diarrhœa. She has discharged two bones of a finger.

23d. Sleeps well, appetite poor, pulse weak, not much pain, hectic flush on check. Has discharged what appear to be pieces of tendon, and one phalangeal and one metacarpal bone, not so much other discharge.

30th. About the same, pulse very feeble, and more discharge, which is sometimes tinged with blood.

December 7. She is more restless at nights, has neuralgic pains in different parts of the body, and is getting smaller.

13th. Appetite improved; sleeps better; bowels regular; hectic flush nearly gone; discharge continues.

February 28. Continues to improve; rode out yesterday without hurting her; has the discharge when she lies down, but not while sitting; it is somewhat bloody to-day. There is considerable thickening of the subcutaneous cellular tissue in the lower right hypogastrium where the fetus was at the first most prominent. She does all her walking in a stooping posture, assisted by a cane or some support, as from the first.

March 21. The discharge continues while lying, but is not tinged with blood. It has been of a greenish colour, and more offensive within a few days. Occasionally there is some discharge from the centre of the umbilicus, and has been for the last two months; it has increased of late and appears in look and smell like that from the vagina. It probably comes from the sac that surrounds the fetal bones. She appears as well as when last seen three weeks ago, but has not improved. She is very sore, and cannot bear pressure over the sac, especially on the left side. She has improved in flesh. When at the greatest emaciation a garter of 6½ inches was worn below the knee to hold the stocking; now 9½ inches is required for the same purpose. I have advised gastrotomy as soon as she can willingly consent to it. Her general health is good.

April 14. I have been preparing the patient, trying to get her full and free consent to an operation, and finally succeeded. Believing that she will have better care at the New York State Woman's Hospital than her circumstances will

allow at home, I have made arrangements to have her taken to that institution; and Dr. T. Gaillard Thomas is engaged to operate.

30th. Arrived at the hospital at 9½ o'clock, A.M. Considerably fatigued, but in good spirits, and has borne the journey very well. At 3½ P.M. met Dr. For-dyce Barker and Dr. Thomas in counsel, who agreed with me that gastrotomy should be performed as soon as the patient could be rested and the bowels cleared, so as to get ready for it.

May 3. The patient is placed on the table and etherized. At 3 o'clock the abdominal cavity was opened; and a sac adherent to the walls and in front of the intestines found, which contained but little else except the bones; and as these were turned out Dr. Thomas said to me, 'I find everything as you predicted.' The sac was entire, but in removing the bones, which had become separated and imbedded in its walls, it was torn so as to allow some of its filthy contents to escape into the peritoneal cavity, thus greatly endangering peritonitis and septicæmia. The posterior portion of the sac was then slit open, so as to allow free drainage. The cavity was sponged, a drainage-tube inserted, and the external wound closed around the tube by silver-wire sutures. She was then placed in bed, a hypodermic injection of morphia given, and soon recovered from the ether, and shock of the operation; but all who witnessed it believed her chances for complete recovery were very small. The next day I received a telegram from the House Surgeon, saying, she is 'doing first-rate.'

5th. Dr. Barker informs me that the patient appears 'quite bright and cheerful. Her temperature was only 99°; pulse 110. No tympanites, no peritonitis; and it is rather late to expect a development of septicæmia, and if severe renal complication does not exist, she has a pretty fair chance of recovery.

'6th. The temperature has not risen to 100°, but the pulse has averaged 130-136. She has vomited a good deal of a dark-green fluid for the last two days. The abdomen is slightly tender, and it is thought she has peritonitis. The abdominal cavity is washed out daily through the glass drainage-tube.'

10th. She is doing well; has much less vomiting; pulse and temperature both lower, pulse 120, temperature 98½°.

11th. 'Dr. Thomas regards her as out of danger.'

15th. The House Surgeon informs me that 'the drainage-tube has been taken out and the discharge is very slight, although fetid. The average temperature is 99½°. She does not vomit. Her general appearance is excellent. She has overturned all our theories, and done better than we had any idea of.' "

This case entirely recovered, and the patient left the hospital perfectly restored to health. I can recall no instance in which I have performed any capital operation upon a patient so depreciated in constitutional condition. The operation was undertaken as a "forlorn hope," and with a decided conviction on my part that it would fail to save life. It was one of those unfortunate instances in which one operates merely from a strict sense of duty. Although the case ended favourably I feel that out of nearly one hundred and fifty laparotomy operations which have fallen to my lot it was less skilfully and cautiously performed than any other. The patient recovered without the development of a bad symptom, but she recovered in spite of certain untoward occurrences which I could have and should have avoided. Instead of rapidly evacuating the extra-uterine sac of its contents, and in the removal of bones firmly attached to the cyst wall tearing through so as to open a communication with the peritoneal cavity, I should have slowly and cautiously removed the mass of bones, and then, leaving the abdominal wound open for the gradual discharge of others which were attached, kept up antiseptic injections until the fetal shell had entirely contracted and extruded its contents through the wound.

CASE VI. *Abdominal Pregnancy now advanced to four months and one week: Still in Progress and kept under observation.*—This case I am now attending with Dr. Wilhelm Frankl, and I will give the history in his words, as he has very kindly written it out and put it at my disposal.

“Mrs. T., aged 30 years, born in Austria, married since 3d February, 1869, was delivered 14th October, 1869, of her first and only child, a healthy girl, now nine years old, without professional assistance. Her menstruation was always regular, lasting three days, not very profuse, until 1875, when she was taken ill with metrorrhagic and abdominal pains, and confined to bed from the end of November to the middle of March, 1876. Since this time she was again well and regular, until 29th of this July, when she had only a show of blood for one day. In the middle of August she lost some blood, felt a little uncomfortable, had vomiting at different times, and her breasts were swollen, so that she believed herself to be pregnant. In the beginning of September she was taken ill with pain in the bowels, and with metrorrhagia, the blood containing at the end of September well formed membranes. After several weeks treatment by a quack with hot water injections, I was called in on the 17th of October.

“I found the patient in bed, very weak, suffering from abdominal pains extending to the back and limbs, pale through loss of blood; pulse feeble, over 100, temperature 101° in rectum. The cervix uteri was behind the symphysis ossium pubis, corpus uteri, slightly enlarged, easily felt through the abdominal walls above the os pubis. Passing my fingers into the vagina, I felt in the back wall more to the left, a swelling, increasing towards the fornix vaginae, behind the cervix forming a tumour, round, not tender, but dense. This tumour could be felt by bimanual manipulation in the right iliac region. On macroscopical and microscopical examination, I found the expelled membranes to be ‘deciduae.’

“These facts, with the given symptoms of common pregnancy, and the statement of the patient that she feels the rolling of something in her abdomen when she moves from one side to the other, induced me to exclude all other possibilities and to make the diagnosis extra-uterine, and especially abdominal, pregnancy.”

It will be seen that before I saw this case Dr. Frankl had made the diagnosis. Upon a very careful examination, I was led to agree with him by the following rational and physical signs: first, the existence of all the ordinary signs of pregnancy with irregular sanguineous discharge; second, the existence of a painful tumour behind the uterus; third, the expulsion of decidual membranes without abortion; and fourth, the displacement upwards and forwards of the uterus by a tumour which, by exclusion, could be proved not to be a hæmatocele, an ovarian cyst, or a fibroid.

It is quite true that the diagnosis may not prove to be correct; but a diagnosis being merely a logical deduction from given premises, I believe this to be the most logical which can be maintained under the circumstances.

The diagnosis, prognosis, and proposed plan of treatment were, by Dr. Frankl and myself, clearly laid before the lady's husband, and he cheerfully accepted the alternative of waiting, in the hope that, at a later period,

when nature has pointed out the channel which she would prefer for extrusion of the foetal mass, operative interference would be far safer than at present. The hope was likewise held out to him that at the end of the ninth month of extra-uterine gestation the crowning triumph of obstetric surgery might be gained by saving the lives of both mother and child, as was done in the case recently reported by Mr. Jesop, of Leeds, to the London Obstetrical Society. At the same time, the fact was made quite clear to him that delay might result in the sudden rupture of the foetal sac and the immediate death of his wife. The dangers of delay were balanced against those of immediate operation, and he readily consented of two extreme dangers to choose the lesser.

I have operated six times for extra-uterine pregnancy, but never have I done so without good reason for believing that delay would be far more dangerous than immediate interference. Out of the six operations, four have saved lives which were in imminent peril. My experience makes me willing to accept as a rule the precept that operative procedure in extra-uterine pregnancy had better, if possible, be delayed until nature points to the channel of extrusion which she selects. The most dangerous of men, however, are those who implicitly, unthinkingly, obey rules. The bold and wise surgeon is he who keeps the rule for general guidance, breaking it unhesitatingly when an exceptional indication demands such a course. I must confess, too, that I regard the basis upon which rest the rules of practice with reference to this whole subject as unreliable and requiring complete and careful reconsideration. The usual starting-point for the discussion is Campbell's monograph, a contribution which, although excellent for its day, is now almost as completely obsolete a guide for practice as the dicta of Blundell and Ramsbotham would be upon ovariectomy. I have given in my adherence to the orthodox creed in these cases, but if this poor lady be not cut untimely off by rupture of the foetal shell, I shall watch with eager eyes for some valid indication to make an exception to an unfortunate rule by which her life, and perhaps that of her offspring, may be snatched from an impending fate.

There is in this interesting case one feature from which I take great encouragement, and which I have not yet specially mentioned. The post-uterine tumour evidently tends to burrow downwards, forcing the fluid which it contains into a pouch between the vagina and rectum, below the uterus, by pushing downwards the pouch of Douglas. This tendency makes me hopeful that in case interference becomes imperative before full term it may be practised with diminished risk at this point; while, should the full term arrive and the head of the child, pushing aside the uterus, present here, I may be able to cut through the vaginal wall, seize the head by the obstetric forceps, and deliver a living child from a woman only slightly endangered by the operation almost *per vias naturales*.

In the year 1816, Dr. John King, a country practitioner, residing upon

Edisto Island, on the Coast of South Carolina, met with just such a case as I have described, and being both a bold and original man, one who recognized the importance of exceptions to rules, he followed the course to which I have alluded with the result of saving mother and child. This case will be found published in the *Med. Repository*, 1817, and a pamphlet upon the subject by Dr. King is now in possession of Dr. Pooley, of Yonkers, N. Y.

In my last case the great danger is that an error of diagnosis may have been made as to the variety of extra-uterine pregnancy which exists, and that this error may be suddenly announced by rupture of the sac and fatal collapse on the part of the patient. But even if such an error was now known to exist, I would not, under present circumstances, feel warranted in accepting the grave dangers of immediate operation. In such a case, he who strives to act conscientiously for the true interests of his patient, must be guided merely by the best light which is afforded him at the moment when decision is called for. In this case I feel that the course which is being pursued is that which is dictated by sound judgment.

Were these cases published simply as "six cases of extra-uterine pregnancy," the report would be calculated greatly to mislead in reference to the mortality of this terrible aberration of gestation. Here are six reports of unquestionable and carefully observed instances of this condition with not one death! Surely it might from this be said extra-uterine pregnancy, managed by the means at the disposal of modern surgery, is to a great extent bereft of its old-time dangers! But these cases are not so published, and although I have already endeavoured to avoid the creation by them of any erroneous impression, I still further effect that object by stating the mortality of the remaining nine cases of extra-uterine gestation with which I have met.

Of two cases of interstitial pregnancy one died, and one recovered after a dangerous interference which saved her life. Of seven tubal pregnancies six died, and that which survived did so only after submitting to a capital operation in itself sufficient to have destroyed life, but which in this case fortunately saved it.

It will thus be seen that the results here published bear me out in the statement made in the commencement of this paper that abdominal pregnancy, although attended by great dangers, is far less hazardous than any of the other varieties of this class.

The question now arises as to the time at which surgical interference should be practised in such cases. In the other varieties of extra-uterine pregnancy, the continued progress of gestation exposes the woman to constant and steadily increasing danger of sudden death. In the abdominal form it not only does not do this, but it is often the wise course to allow the process to continue until the child arrives at full development, as has been done in repeated cases, and as I am now doing in Case VI.

But let us suppose that either before or after full term of gestation the child has died, and it is pretty certain that the woman carries her dead offspring within the peritoneal cavity. Is it wise on this account at once to interfere by surgical means? I think not. One of the greatest dangers attaching to interference consists in hemorrhage. The longer time that the placenta remains attached after foetal death the more certain it is to become atrophied, and consequently less vascular. Another great danger consists in septicæmia. The more thoroughly the foetal envelopes become disorged and atrophic from loss of function, the less likely is this dangerous complication to develop. Judicious delay and cautious waiting for symptoms indicative of approaching trouble are then, in my opinion, decidedly advisable.

But such delay, such waiting, are by no means to be carried as far as in Cases V. and III., where the symptoms of septic absorption had gone in one case to marked constitutional depreciation, and in the other to production of a condition which almost precluded the possibility of recovery. Non-interference carried as far as this is not less to be deprecated than a rashness which results in intemperate and premature resort to operation.

No fixed rule can apply to all these cases. The following may guide the practitioner in general, he modifying them to suit the varying indications which may present themselves:—

1st. Before full term, should the child developing in the peritoneal cavity be alive, its growth may be carefully watched, and the end of the ninth month be waited for in the hope of delivering at that time either by laparotomy or elytotomy a living child from a living woman.

2d. Should the child have died early in pregnancy, delay in interference is advisable, but this should not be carried to the production of septicæmia or hectic.

3d. Should the full term be passed, and the child be still imprisoned in its unnatural resting-place, the rule should be to wait for evidences of constitutional disorder on the one hand, and to meet its development promptly and decisively by succour on the other.