three cases recorded are the only ones admitted into the women's wards, St. Bartholomew's Hospital, during the last ten years.

It has been stated that such an accident may be recovered from without surgical interference. This may be true occasionally; indeed, there is scarcely an accident to the human body however severe that may not be survived.

As regards rupture of the uterus, the point is whether the patient has a better chance with or without an operation. Undoubtedly in Cases I and II the patient would have had no chance; in both cases a considerable amount of intestine had prolapsed into the uterine cavity, and then, owing to the contraction of the muscular walls, had become hopelessly strangulated.

In Case III at least a fourth of the mucous membrane of the uterus was everted through the laceration, and therefore would have prevented the spontaneous closure of the rent. The desirability of operating promptly after the accident has been discovered is shown in the cases recorded.

The first case had been left so long that the patient had not sufficient vitality left, and died on the table. The two other cases, operated on earlier, did well, giving no anxiety. The first case was operated on ten years ago, at a time when the cleaning out of all debris and blood clot was considered essential; such a "toilette" is not necessary, and certainly should not have been undertaken in the patient's collapsed condition. In recent years I hardly ever wash out or use a drainage tube, experience showing that blood left in the abdomen does little or no harm.

THREE CASES OF TUBAL PREGNANCY.*

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CASES of tubal pregnancy are not very uncommon. In the course of fourteen years' attendance on hospital practice I have seen 20 examples in addition to the 3 recorded below, and know of at least 6 other cases occurring in the private practice of my friends.

Pain and haemorrhage are usually the first indication that there is anything amiss, consequently it is not the surgeon but the general practitioner who first arrives on the scene, and on whose recognition of the gravity of the case the life of the patient frequently depends.

The following cases markedly contrast with each other, and illustrate three of the recognized conditions which may be produced by rupture of or haemorrhage from a pregnant tube:

CASE I.

History.—A woman, aged 24, was seen in consultation with Dr. R. H. Clay. She had been married seven years. There were two children, aged 6 and 5 years, and no miscarriages. Menstruation had been regular for five years up to thirty days before the date of the consultation, when the period due failed to appear; eleven days previously she suffered pain in the vagina and rectum; eight days previously the pain increased, and a little blood was lost per vaginam; four days previously diarrhoea occurred, with the passage of a few blood clots by the vagina; one day previously the diarrhoea was accompanied by pains resembling those of labour.

Diagnosis.—When first seen in the morning the abdomen was slightly distended and tender, with an indistinct sense of resistance above the pubes. It was resonant except in the flanks, where dullness, not affected by change of position, was most marked on the left side. On vaginal examination the uterus, of normal size, was found low down, close behind the pubes. The cervical canal was closed. In Douglas's pouch was a smooth, very tender, mass, resembling an ovary. The rest of the pelvis felt full and boggy. On rectal examination the same boggy mass was felt. The upper rectum was constricted. The lips were somewhat anaemic. The pulse was 110, and the temperature 101°. A diagnosis was made of rupture of a pregnant tube, with coagulation of the effused blood.

Operation.—When seen later at 9 p.m. abdominal pain was very severe, and not relieved by morphine; the lower abdomen was much more distended. The temperature was 103°, and the pulse 134. The face was drawn, and the breath had the sweet smell frequently associated with sepsis. I considered that the blood in the abdomen was becoming infected, and that possibly a fresh haemorrhage was taking place, and therefore decided on immediate operation. At 1 a.m. I opened the abdomen by an incision 6 in. long through the right rectus. The omentum

and small intestines were partly adherent to the pelvic contents. On separating these adhesions handfuls of dark clot and fluid blood appeared. The right ovary and Fallopian tube, which was ruptured at its centre, were removed. At this stage the anaesthetist reported that the radial pulse had disappeared. The omentum had several clots incorporated with it, as had also the rectum and uterus. These clots were so adherent that they were left. Before tying the last suture in the abdominal wall, 5½ pints of warm saline solution were poured into the abdomen through a funnel and tube. This improved the patient slightly, but failed to restore the radial pulse. No superficial vein being visible, the venae comites of the right brachial artery were exposed in the middle of the arm. These veins were so small that it was impossible to introduce a cannula. The incision was then prolonged up to the fold of the axilla, where the veins united, and into this vein 8½ pints of hot saline solution, with 1 oz. of brandy, were injected.

After-history.—The patient had no sickness, slept fairly, and passed 1 pint of urine during the night and 4 pints of urine in the twenty-four hours following operation. Recovery was steady, the pulse rapidly slowed, and on the twenty-fifth day was 78. Recovery may be attributed to the large amount of fluid injected, 1½ gallons in all, which in the first place relieved shock and afterwards enabled the emunctories, especially the kidneys, to dispose of the poison, and to the very able assistance which enabled me to complete the operation, which was performed in a small cottage, in just over the hour.

CASE II.

History.—The patient, a married woman, aged 23, was seen in consultation with Dr. C. P. A. Mariette. She had two children. She had missed her last period. Thirty-six hours before being seen, shortly after taking a dose of salts, she was seized with abdominal pain, faintness, and convulsions.

Diagnosis.—When seen the patient was found blanched, with a distended abdomen, and a thready pulse. A diagnosis was made of rupture of a pregnant tube, with haemorrhage into the general cavity of the peritoneum.

Death.—Immediate operation being imperative, this was commenced at 10 p.m. A minute quantity of chloroform and ether was given, followed by infusion of saline solution and strychnine into the right brachial veins, preliminary to coeliotomy, but death took place soon after the commencement of the infusion. No abdominal incision was permitted.

CASE III.

History.—This patient, seen in consultation with Dr. J. J. Blagden, was a married woman, aged 34. She had one child 5 years old, and no miscarriage. She had passed through two attacks of rheumatic fever. The patient complained of a painful swelling in the left side of the abdomen. The last period took place five months ago. Eleven weeks ago she was taken suddenly ill with shivering, accompanied by pain in the left iliac region. This was attributed by the patient to a chill. She saw a medical man, who is reported to have told her that the womb was displaced, and that she must lie in bed in one position for three weeks. At this time, having previously been regular, she had missed three periods. After a week or two a tumour was noticed in the left iliac region; the swelling became large and tense, so that extension of the left leg caused pain. Six weeks ago something seemed to burst, and for twenty-four hours there was a large flow of blood from the vagina. The loss of blood then ceased, and the iliac swelling was noticed to have almost disappeared. Her then medical attendant called another medical man in consultation, as the result of which the patient states that she was told that she had a pregnancy outside the womb, but fortunately this pregnancy had been discharged through the womb. The patient had been up on a couch daily, and a week ago had gone out for a drive. During the last fortnight the tumour had again increased in size and was larger than before. The patient, who was becoming weaker, suffered severe pain. At this time she changed her medical attendant and called in Dr. Blagden.

Diagnosis.—The temperature was normal and the pulse 90, of fair volume and tension. Nothing abnormal was discovered in the heart. On the left side, rising from the pelvis to the level of the umbilicus and extending 2 in. to the right of the middle line, was a tense rounded tumour, the size of a coconut, tender on palpation, and giving a thrill and dull note on percussion. On vaginal examination the uterus was found to be pressed downwards and to the right by a globular swelling apparently continuous with the mass in the abdomen. A diagnosis was made of rupture of a pregnant tube with continued development of the pregnancy, probably between the layers of the broad ligament.

Operation.—In view of the increasing weakness and continued pain operation was decided on. An incision 6 in. long through the left rectus was made over the most prominent part of the tumour. The divided tissues were extremely vascular. The distended, very tense broad ligament was exposed. In the right side of the pelvis the softened uterus was felt enlarged to twice its normal size. The broad ligament was incised, the placenta being on the surface of the tumour; this incision extended through the placenta. Liquor amnii escaped freely, and a living fetus of 4½ to 5 months' development was extracted, the cord being ligatured and dropped back in the sac, which was then packed with gauze. Haemorrhage

* Being part of a paper read before the South-Western Branch of the British Medical Association.

from the placenta was free but not excessive. No vessels, except those of the cord, required ligature during the operation. The edges of the sac were fixed to the abdominal parietes with a continuous catgut suture. The upper and lower $1\frac{1}{2}$ in. of the abdominal incision were closed by mass sutures of silk-worm gut. At the end of the operation, which lasted an hour and a quarter, the patient was nearly pulseless. No superficial vein being visible the deep brachial veins were exposed in the upper arm, and 4 pints of hot saline with $\frac{1}{2}$ oz. of brandy were injected; hypodermic injections of strychnine were also given.

Death.—The patient completely recovered consciousness with a slow, steady pulse; but three hours after operation the pulse again failed, and, in spite of stimulation, death occurred five hours after operation.

COMMENTS.

Case I is an example of the common variety, in which, after rupture of the tube, the blood, being slowly and intermittently poured out, is limited to the lower abdomen by adherent omentum and intestines, from which are derived the bacteria which infect the blood clot. Portions of blood clot found to be incorporated with the peritoneum covering the pelvis and viscera should not be disturbed. Their complete removal is impossible, while partial removal only injures the peritoneum, which, if left undisturbed, is quite capable of dealing with these adherent clots. The majority of cases of this class recover after removal of the affected tube and the loose coagula.

Case II exemplifies the fulminating type of haemorrhage following rupture. I have on several occasions noted the fact that some strain or extra exertion—in this case the result of a purgative—has immediately preceded the rupture. In some instances strong purgatives have been taken in order to produce abortion.

Case III illustrates what is probably the most usual condition found after rupture of the tube, not involving the death of the fetus, which continues to develop between the layers of the broad ligament. Operation was performed in this case because pain was continuous and the patient was daily becoming weaker. Death from cardiac failure could only be attributed to the shock of the operation on an already enfeebled patient.

Haemorrhage during the operation was moderate, and quite insufficient of itself to account for the fatal issue. Operation gave the patient her only chance, but should have been performed at least two and a half months earlier.

NOTES OF A CASE OF REPEATED EXTRA-UTERINE GESTATION ON THE SAME SIDE.

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The following case is of interest not only because extra-uterine gestation occurred twice on the same side, but owing to the comparatively early period at which rupture occurred in both instances (seven weeks and five weeks respectively), and the rapidity with which the tube must have again become pervious after the first rupture.

A woman, aged 33, complained on March 26th, 1905, of pain in the back and hypogastric region, and of a slight haemorrhagic vaginal discharge. She had suffered from a "nervous breakdown" two years previously. Menstruation had occurred regularly every twenty-eight days and lasted four days, and had never given rise to any discomfort. She was married in November, 1904. Menstruation took place about the end of January, 1905, and had not recurred. On March 25th she began to feel indefinite pain in the abdomen, which gradually became more severe, and a vaginal discharge began the following afternoon. On March 27th the discharge was more profuse and some blood clots were passed. Vaginal examination revealed a slightly enlarged uterus, with a patulous cervix almost admitting one finger, and low down in the right inguinal region there was a rounded, non-pulsating tumour about the size of an orange, suggesting the possibility of either an extra-uterine gestation or a fibroid tumour. As the symptoms were indicative of abortion, the cervix was dilated and an attempt was made to empty the uterus, but only pieces of a thickened mucous membrane were brought away. For the next fortnight the patient was treated with hot fomentations and corrosive sublimate douches, and the discharge gradually lessened. Pain in the right inguinal region persisted, and the tumour seemed unchanged. On April 9th Dr. Haultain saw the patient in consultation, and thought that the case was one of extrauterine gestation, although there was a possibility that the tumour might be a

fibroid. As pulsation was absent, it was thought safe to continue palliative measures, and at Dr. Haultain's suggestion an icebag was applied over the tumour. The benefit following its use was most striking, as within a few hours of its application all tenderness and pain had disappeared; after this the tumour began to diminish in size. On April 21st Dr. Haultain again saw the patient; it was now found that the tumour could no longer be palpated externally, and on vaginal examination all that could be made out was a thickening of part of the right Fallopian tube near the uterus to an extent not exceeding the diameter of a man's thumb. By May 1st this thickening had diminished considerably, and all symptoms had disappeared. There was now practically no doubt that the condition had been one of ruptured extrauterine gestation. Menstruation returned in June, and occurred once a fortnight till August, when it resumed its normal type.

I was again asked to see the patient on January 12th, 1906. Menstruation had occurred in the last four days of November, and had been scanty. No period occurred in December. On January 9th a slight vaginal discharge took place. Next day she had a bad attack of abdominal pain and diarrhoea, and what seemed to be an ordinary menstrual flow began. On January 12th a tumour, closely resembling that found during the first illness, was discovered in practically the same situation, although it seemed in closer relationship with the uterus, which was again slightly enlarged. The cervix was soft. An icebag was again applied, and hot douches twice daily were ordered. On January 15th a complete cast of the uterus came away while a douche was being administered. This was examined microscopically in the laboratory of the Royal College of Physicians, and found to be a decidua. From February 18th to 23rd a very profuse brown discharge took place, and then completely stopped. The tumour rapidly decreased in size, and on March 9th a thickening of the right Fallopian tube, giving the impression of a swelling about the size of a small walnut, in close relationship to the uterus, was all that could be made out. On March 18th a normal menstrual period began.

My impression is that the second ovum had reached a point nearer the uterus than the first, and the patient is of opinion that the second "lump" was lower down than the first. The question of operative treatment has been considered, but the patient and her husband are averse to that course; and, in view of the favourable outcome on both occasions, I do not feel justified in strongly insisting upon it. The patient has, of course, been warned about the urgency of seeking medical advice regarding the occurrence of even apparently trivial symptoms. The application of an icebag on both occasions made all the difference between acute suffering and comparative comfort.

A CASE OF PUERPERAL SEPTICAEMIA DUE TO THE DIPLOCOCCUS PNEUMONIAE.

BY

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OWING to the rarity of recorded cases of puerperal fever in which the presence of the *Diplococcus pneumoniae* has been established, we have thought the following case worthy of a detailed report:

Jane B., aged 24, was delivered on June 16th, 1905, in poor surroundings, of a male child.

She had had two previous children, healthy, and born at full term.

A single examination was made, some hours before labour commenced, the usual precautions being taken. The midwifery attendant was not present at the birth of the child, but there seems to have been no difficulty. The child was full time and alive.

The temperature remained normal till the fourth day after delivery (June 20th), when it ran up to 102.8° F. and the pulse-rate to 130. On vaginal examination the os was patulous, but nothing abnormal was felt. The uterus was more than usually tender, the lochia and milk were suppressed, and there was constipation. The uterus was washed out with lysol, and quinine administered.

On June 21st the temperature was still high, 102° F., and the pulse-rate was 135. The abdomen was slightly distended, and towards evening vomiting commenced. The patient refused to come into the hospital, so a further douche was given. A purge followed by an enema resulted in a free movement of the bowels. On examination of the chest a few fine crepitations were heard at the base of the left lung behind, and the question arose as to whether the patient was not suffering from pneumonia rather than puerperal fever.

On the following day (June 22nd) she was admitted to Guy's Hospital. On admission the temperature was 102.8°, the