THREE CASES OF EXTRAUTERINE PREGNANCY

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When a married woman, whose menstrual period has been regular for some time previous, misses or goes beyond her time for menstruation she will suspect pregnancy. If a flow from the vagina begins in a period varying from four or five days to three weeks after the regular time, continuing more or less regularly, accompanied by pains periodic in character located in the hypogastrium, or on either side, extrauterine pregnancy should at once be suspected by the physician, unless some other well-defined condition is present to account for it. This vaginal hemorrhage at times may be dark-colored, coagulated blood, at others a blood-tinged leucorrhea; in some instances it may be bright red. If it is profuse in quantity it is more likely to be bright red in color. It is usually described by the patient as being different from the normal menstrual flow and is, therefore, atypical.

There may be a number of severe attacks of pain lasting over a period of several weeks before the final rupture occurs. Not infrequently considerable blood escapes into the abdomen during these attacks, but not enough to produce serious symptoms. There are undoubtedly many instances in which the ovum escapes into the abdominal cavity with but moderate hemorrhage, becomes destroyed, and the woman recovers.

If in addition to these signs bimanual examination reveals an enlarged tender tube on either side of the uterus, extrauterine pregnancy should at once be suspected. This history and these symptoms are present in the majority of cases long before the final stage of rupture and collapse.

Recently three patients have been operated on whose histories show the symptoms referred to in a striking manner. In two of these women there had been considerable hemorrhage previous to the diagnosis. In Case 2 rupture of the tube had occurred. In Case 3 a large amount of blood had escaped from the fimbriated end of the tube. The ovum was attached within one inch of the uterus, and there was imminent danger of rupture at that point. In all three cases the history shows that menstruation had been regular for some months previous to the onset of symptoms.

The following symptoms and the signs elicited by careful bimanual examination are doubtless present in most cases of extrauterine pregnancy, and when present they are danger signals of the utmost importance: Period due on a certain date does not appear. Six, eleven and thirteen days later a flow from the vagina begins which continues irregularly and is accompanied by attacks of pain recurring at frequent intervals, at times being very severe and accompanied by symptoms of shock.

It is interesting to note the absence of any of the ordinary symptoms of pregnancy in these patients, as nausea, vomiting, or marked local signs, viz.: softening of the cervix and distinct enlargement of the uterus. That these signs seldom stand forth prominently in the picture of an ectopic gestation is my experience.

CASE 1.—Referred by Dr. Nealon.

Patient.—Mrs. C., aged 29, no labors, no miscarriages. Family history negative. She had had the usual diseases of childhood.

History.—The general previous history contains little of importance. She was married ten years ago. Menstruation began at the age of 14, and has been always regular, though she had suffered pain previous to and during flow for the last ten years.

Regular period was due Dec. 25, 1908. It did not occur, but on January 1 a flow began which was accompanied by severe pain. This flow continued at irregular intervals and was atypical in character, sometimes very scant and again rather free until her admission to hospital, Jan. 23, 1909. During this time there had been several attacks of severe pain. On one occasion she was found by her physician in a condition of shock. The pains have been irregular and much more severe than those due to miscarriage during the first four or six weeks. On pelvic examination a mass was found on the right side of the uterus, and the uterus was pushed toward the left. Any movement of the uterus caused great pain. There was no elevation of temperature.

Diagnosis.—Extra Uterine Pregnancy.

Operation.—Jan. 26, 1909: Incision revealed some free blood in the abdominal cavity and a considerable quantity of clots in the pelvis. The right tube which was distended with blood to one inch in diameter was removed. The ovum was located about one inch from the uterus and there was imminent danger of rupture at this point as there was an opening less in size than a pin point which was plugged by a small fragment of decidual tissue. Recovery.

CASE 2.—Referred by Dr. Clark.

Patient.—Mrs. C., aged 29; no labors, no miscarriages. Family history negative.

History.—Menstruation began at the age of 14 and has always been regular. She has been married seven years. Owing to her anxiety to bear children Dr. Clark introduced a stem pessary some months ago and this was worn until the development of symptoms incident to the present illness. The menstrual period was due January 2. It did not appear on this date, but on January 13, a flow began from the uterus accompanied by severe pains, much worse than had been customary at any time in her history. This flow continued somewhat irregularly until the morning of January 23. During this time there was more or less pain, which at times was severe. The patient described the pain as cramp-like and intermittent in character. On the morning of January 23 she was seized with a very severe pain which was accompanied by prostration. Dr. Clark was then called for the first time and it was necessary to administer morphin in order to control the pain. Later in the day I saw and examined the woman. From the history, condition and appearance of the patient the diagnosis of extrauterine pregnancy was made. The abdomen was everywhere tender and the presence of fluid in the pelvis was easily determined. Operation revealed a tube ruptured at junction of outer and middle third. Recovery.

CASE 3.—Referred by Dr. Dankrim.

Patient.—Mrs. H., aged 33, was admitted to the hospital Feb. 19, 1909. Family history negative. She had had the usual diseases of childhood.

History.—General health was good previous to marriage, eighteen months ago. She gave birth to a dead child nine months after marriage. Since this time she states that there has been pain at the menstrual period. The flow lasted from four to five days and always recurred at regular intervals—every twenty-eight days. January 25 was the expected and regular time. The flow did not appear on this date, but on February 7, thirteen days later, it appeared and was accompanied by more than the usual amount of pain. This flow did not seem normal to the patient and was described by her as more sticky in consistency than normal. Also at times was somewhat brighter in color. In short it was an atypical discharge and continued from February 7 until admission to the hospital February 19. During the last thirteen days there were several severe attacks of pain which she described as colic-like seizures. After the pain there would sometimes be an increase in the vaginal discharge. On February 18, the day before admission, an attack of pain occurred which was very

severe and referred to the epigastric region and was accompanied by symptoms of shock and prostration. The family physician thinking her symptoms serious, sent her to the hospital.

Examination.—On admission the patient showed very pronounced symptoms of loss of blood; pale mucous membranes and pulse of about 120. The abdomen was moderately distended and very tender over the entire surface. Peristalsis was markedly decreased and there was slight tendency to rigidity of muscles. These are, I believe, almost pathognomic signs of hemorrhage into the peritoneal cavity. The examination revealed an enlarged tube on the right side and bulging of the cul-de-sac from the presence of the fluid.

Operation.—The condition of the patient was such that she could safely withstand a short operation. This was done February 19, at 4 p. m. The abdomen contained a large quantity of fluid blood and the pelvis was filled with numerous clots. The right tube was removed, the pelvis cleared of clots, and the abdomen closed. The tube was distended with blood to $\frac{3}{4}$ inch in diameter throughout its length. The location of the ovum was almost one inch from the uterus and the decidua was well attached to the upper surface of the tube. The hemorrhage had escaped from the fimbriated end of the tube, and there were at least three pints of blood in the peritoneal cavity. Doubtless there would have been later a more serious hemorrhage had operation not occurred at this time. Recovery.

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KIDNEY CONDITIONS SIMULATING RENAL CALCULI

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The admonition of the elder Gross, "never operate for stone unless you have one in your pocket," seems especially applicable to renal calculi. The reason for this failure lies not only in the inability of the surgeon to find the stone when present (although this, I grant, at times occurs to the most experienced), but also because there are a number of pathologic conditions whose symptoms simulate stone in the kidney most accurately. Some of these I wish to present for consideration as exemplified by several typical cases:

The first case is one of infected infarcts of the kidney, with symptoms simulating renal calculus.

CASE 1.—History.—J. N. S., aged 47, thin and spare, by occupation a cattle speculator, had had for ten days previous to operation constant pain referred to the region of the loin and right kidney. The pain was so severe that morphin had no effect, although he was given large amounts. The twenty-four hours preceding operation it was necessary to give him chloroform every hour or two to relieve his pain. His temperature was normal and so was his pulse. The pain was never referred to the right shoulder but at times to the left testicle. An examination of the urine showed pus and red blood corpuscles in small amounts, with a few hyaline and one granular cast. A diagnosis of stone in the kidney was made.

Operation.—Nov. 10, 1907, at 11 p. m., at St. Luke's Hospital, Dr. Guffey and Dr. Trexler assisting. Ether was given and an oblique incision was made through the loin about five inches long. With some difficulty, owing to the position of the ribs, the kidney was delivered. Its capsule was stripped and the kidney opened through the cortex. It was deeply congested and probably one-third larger than normal. At three or four places on the cortex there appeared small irregular areas from size of a small pea to that of a nickel, that gave the kidney a yellowish mottled appearance. When cut into, they appeared to be spots of infection or infarcts. An examination of the gall bladder and appendix revealed nothing abnormal. The kidney was replaced in position, the wound packed with iodoform

gauze to control the hemorrhage, and a rubber drainage tube inserted into the pelvis of the kidney.

Postoperative History.—The patient reacted well from the operation, his pulse never going above 90 and his temperature 101. He left the hospital at the end of two weeks with the wound completely healed, except at the point of the drainage. On Sept. 1, 1908, the patient was seen again. He never had had a return of symptoms and had gained thirty pounds in weight. "Never so well."

Infection from the blood has been until recently thought to be an extremely rare occurrence, but the recent investigations of Cabot and Farrar C. Cobb in Boston, and the experimental work of Buxton and Torrey of Cornell, and Brewer of New York and others show unquestionably that such an infection is by no means unusual. It has been demonstrated, however, that some predisposing localizing cause must also be present before infection of the kidney will result. This *locus minoris resistentiæ* was produced by Brewer by bruising the kidney substance or ligating the ureter. In every subject so dealt with experimentally, bacteria introduced into the circulation produced septic nephritis. In my own case trauma doubtless was the localizing agent, as the patient's occupation—that of a cattle buyer—subjected him to frequent bumps or contusions, although he did not remember being severely injured just prior to the attack.

The extreme pain in this case and the lack of elevation of temperature, however, would lead me to believe that the infectious element was subordinate to the embolic process. There was no valvular disease of the heart, however, and consequently it is more reasonable to assume that the emboli were of bacterial origin. Unfortunately, no culture was made at the time of operation.

The second case is more frankly that of a hematogenous infection of the kidney.

CASE 2.—Patient.—Miss L., school teacher, aged 32, had been troubled with pain in the region of the left kidney, and symptoms of cystitis for the past five months.

Examination.—At the hospital, Sept. 15, 1908, The patient was a young woman, greatly emaciated, with a dry brown tongue, rapid and feeble pulse (112 to 120), temperature from 99 to 102.2. At this time she complained, chiefly, of frequent burning urination and severe pain in the lower part of the abdomen, which was constant but increased on voiding urine. Careful inquiry revealed the fact that the bladder symptoms had developed secondarily to those referred to the kidney. The first symptoms of which she herself was conscious were those of severe pain in the region of the back. This was a sharp, stabbing pain, radiating down into the groin and the labia. There was constantly a dull pain in the loin, and marked tenderness on pressure. A cystoscopic examination of the bladder showed marked cystitis, with so inflamed a condition of the mucosa that it was impossible to catheterize the ureters. An examination of the urine showed quantities of pus, some blood and many epithelial cells. A few hyaline and granular casts were present, and Dr. Trimble was able to isolate the colon bacillus and staphylococcus. A blood count showed a moderate leucocytosis. The symptoms pointed to primary infection of the kidney with secondary involvement of the bladder, but a positive demonstration of this fact was impossible.

Operation.—Owing to the increased pain and tenderness in the region of the left kidney, it was determined to operate on this side first, as clinically it seemed the organ most diseased. On September 15 the patient was anesthetized and an incision made through the loin. The kidney, which was considerably enlarged, was delivered and incised down through the cortex, exposing completely the renal pelvis. Nothing pathologic was found further than a greatly congested, swollen kidney whose cortex seemed much thickened. Owing to the pressure clamp that was applied at the hilus, the organ was so congested and