INERTIA UTERI (IN A CASE OF UTERUS BICORNIS) DUE TO ENTIRE ABSENCE OF MYOMETRIUM BELOW THE FUNDUS

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The patient was referred to me by Dr. V. F. Keller, of Decatur, Illinois, for surgical intervention, stating that her period of gestation had apparently run ten and a half months or more; that he was unable to induce labor by the usual methods, and while he could not account for the inertia, there was something very unusual about the behavior of the case, and he felt that surgery was indicated. She was admitted to St. Mary's Hospital, February 5, 1923, feeling well and with no signs of impending labor.

A BRIEF HISTORY OF THE CASE

Mrs. B. J. P., a primipara, American, age seventeen years, stout build, weight 130 pounds, height 5 feet, 2 inches. Always healthy except for some of the children's diseases. Menses began at the age of thirteen, fairly regular and normal in amount, lasting three or four days, with but little distress; married two years, never pregnant before.

She is one of six children, four sisters and one brother. One sister died in infancy, cause unknown. Another sister died at two years of some fever; two sisters and a brother living and healthy. Both parents are living and in good health.

Patient's last menses occurred March 6, 1923, eleven months and eleven days prior to delivery. She soon began complaining of nausea, especially in the mornings and after her meals. The nausea continued throughout gestation but not pronounced. No history of severe abdominal pain, or pain with palor or fainting, or shock. No uterine hemorrhage or passing of uterine decidua. No history of extreme peritoneal tenderness or invalidism. The fetal movements were moderately painful but no pronounced abdominal distress. She felt first movement August 15, 1923, six months before delivery; so we are justified in concluding that gestation had run ten and a half months and probably longer.

Physical examination briefly was as follows:

Patient's temp. 98. Pulse 90. Resp. 18.

Urine negative. Wassoman negative. Pelvic measurements quite normal. Conjugate 11 cm. Transverse 12 cm. Oblique 12 cm.

On inspection of the abdomen, the fetus lay high, well up to the costal arch, and its outlines were so plain that one was justified in making a diagnosis at once of a transverse position by inspection alone. The least movement of the child was also readily seen.

On palpation I was impressed immediately with the thinness of the abdominal wall, and the ease with which the child could be outlined and its every movement felt. Lying in a U-shaped position, its occiput rested over the left iliac crest and its sacrum over the right iliac crest, floating high apparently in the abdominal cavity. The head could be pushed down toward the pelvis, the breech in turn rotating up under the right costal arch; on the other hand, the breech could be depressed downward, the head in turn rising up under the left costal arch, but it was very difficult to depress the head down sufficiently to engage the superior strait, and when so depressed, it would not remain, but soon would rise in the abdomen and assume the transverse position again.

Bimanual examination was unsatisfactory, because of the difficulty in reaching or palpating the lower segment of the uterus through the vagina. Even with counter pressure from above it was only possible to touch the uterus with the tip of the examining finger. I was not able at this time to even locate the cervix, which I attributed to the probability of its being rotated well back out of reach, and to the presumption that the cervix would also be very thin and therefore difficult to palpate or locate.

In considering the possibility of abdominal pregnancy I was unable to outline an empty uterus alongside of the tumor mass, either by palpation or through the speculum. The latter proved just as unsatisfactory also in locating the cervix.

The X-ray taken at the time did not throw much light on the differential diagnosis or the cause of the inertia.

It does demonstrate, I think, over-development of osseous tissue for a full term fetus and goes to substantiate the other evidence of excessive length of gestation. This picture does not represent the true and persistent position of the fetus. In order to demonstrate whether or not the head would engage the superior strait I rotated the head downward and forced it down into the pelvis as far as was possible just prior to taking the picture. I should have had one taken while in the transverse position also for comparison.

While physical examination pointed to abdominal pregnancy in many respects there were too many negative signs, and the previous symptomology of the patient was also negative. So we decided that it was probably a case of intra-uterine pregnancy with inertia of unknown cause up to the present time. We felt, however, that surgical intervention would eventually be the only solution, and therefore refrained from resorting to mechanical methods of inducing labor because of its danger of increasing the possibility of subsequent infection.

The patient was put on one minim of pituitrin every three hours and watched closely for first sign of beginning uterine contraction; this was continued for five days up to February 10th, when the dose was increased to two minims, and later three minims, with negative results so far as uterine contraction was concerned. The patient at this time began to complain of being uncomfortable, and nervous, with a pulse rate of 100, thready and slightly irregular, which was attributed to the pituitrin, so we discontinued it, and decided to operate the next day.

February 17th, the patient having been previously prepared in the usual way, a median incision was made through the lower abdomen. On opening the peritoneum what resembled very much both in color and consistency the ammotic sack, welled up through the incision, and both assistant and I exclaimed, "abdominal pregnancy". On separating the abdominal walls farther, the outline of the child was very apparent, as the thin walls of the sack folded down over it. On sweeping my hand around the border of the sack, I found no adhesions or placental attachment, and passing up over the superior pole and pulling it down into view, I discovered that we were deal-

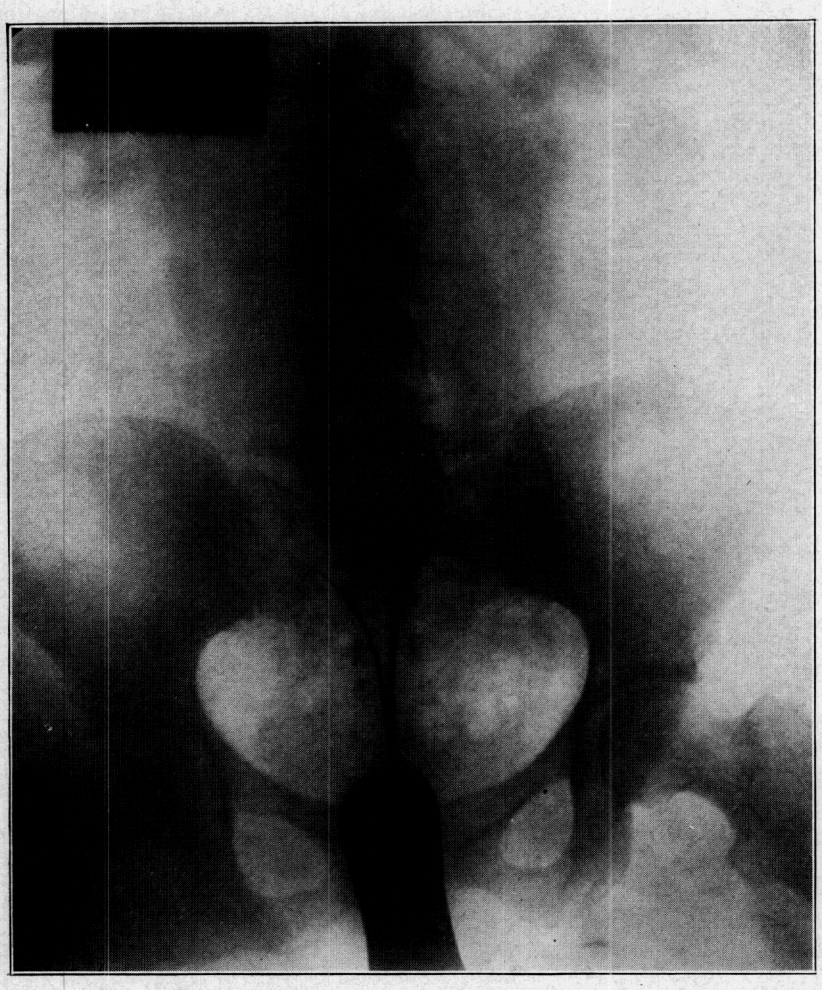

PLATE I.

ing with a bifurcated uterus, or an exaggerated uterus arcutus, in which the myometrium was confined to the fundus, which represented not more than the upper third of the uterus or sack. The lower two-thirds, which contained the fetus, consisted of a mere fibro-elastic bag, absolutely void of myometrium, and proved on opening to be approximately two millimeters thick, and extremely poorly supplied with blood vessels, hemorrhage being almost nil from the cut edges.

I delivered a six pound normal female babe, which cried out as soon as extracted, in protest of the long imprisonment. Its fontinels were small and ossification in general gave evidence of over-development for a normal term babe. The placenta was attached to the fundus of the left horn and was quite adherent. It was necessary to completely invert this horn out through the uterine incision in order to detach it. The sack was closed with two continuous chromic sutures, drawing the peritoneum over a plain catgut lambert suture. The abdomen was closed in the usual way. Mother and child's convalescence was uneventful except for a superficial abcess in the lower angle of the abdominal incision. They remained in the hospital twenty-eight days.

I examined this patient again on January 21, 1925, almost two years after the operation in order to ascertain the present condition of the uterus, to what extent the fibrous sack had contracted or involuted, etc. I found it to be six inches deep, as you can approximately estimate in this X-ray picture. See Plate 1. The two bent applicators, one in either horn, demonstrate the bifurcation very nicely. As I pulled them down into the lower segment with the points still separated, it demonstrated conclusively that the fibrous portion still remained saculated and had never completely involuted after two years' time. I was also able to demonstrate this to my own satisfaction by sweeping a bent sound around in the uterus. I attempted to show the extent of the uterine cavity by filling it with potassium iodide and having it X-rayed, but this was not successful. Either we failed to distend it properly, or the tissues were too thick and dense.

In my examination at this time, I discovered the reason for not being able to locate the cervix at the former examination when the patient entered the hospital, by demonstrating a double vagina, the left side giving every appearance of a virgin vagina, small with the septum clinging close to this side. In this left vagina the cervix was located. The right side was quite patulous and no doubt was the vagina in use. This right vagina had no communication with the cervix except for a small oval opening or rent in the septum. In our preliminary examination we evidently entered the right orifice, and naturally could not locate the cervix unless the examining finger accidentally slipped through the slit in the septum.

In summing up, time will permit only a brief reference to some of the interesting features of this case.

1. Its frequency—While I have not made an exhaustive survey of the literature bearing on the case, I have made sufficient research to justify the conclusion that so extensive absence of myometrium in a uterus is in itself rare.

2. When co-existent with uterus bicornis, a single cervix and double vagina, complicated by pregnancy, certainly makes it unique in the annals of abstetrics.

3. The cause of such an anomaly—Practically all malformations of the uterus are explained by the lack of fusion of the Mullerian ducts at some point or other. The uterus and vagina are formed by the fusion of these two ducts, which are generated from the uriogenital fold, as is the kidney and ovary, the union taking place from below upward. Lack of fusion at any point throughout the length of the two canals explains almost all the malformations found, and rudimentary development of one of the ducts will account for most of the balance. The absence of the myometrium in this case was due no doubt to some defect in the early development of the Mullerian ducts, which I will not attempt to explain.

4. Accurate preoperative diagnosis in a case of this character, it seems to me, is out of the question.

5. The best method of handling it, and the only method in my judgment, worthy of consideration, is Cesarean section.