

IRREDUCIBLE INCARCERATED RETROFLEXED GRAVID UTERUS.*

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THE pregnant uterus may become retroflexed from great laxity of the uterine ligaments or guy ropes which constitute the sling that holds the organ in position. It may become incarcerated by adhesions formed before conception takes place, or by the cervix pressing against the pubic arch, lifting the bladder up out of the pelvis, elongating the urethra, and preventing perfect evacuation of the urine, which has a tendency to force the fundus down under the promontory of the sacrum. Softening of the lower segment, which takes place in the gravid uterus, lessens its self-support and its resistance and robs it of its natural power to rise out of the pelvis and correct its position.

These conditions are not infrequent and as a consequence retrodisplacement is the commonest form of mal-position of the womb that is met with in child-bearing women. With the persistence of the conditions which cause the retroflexion and the rapidly increasing size of the uterus it soon becomes incarcerated and cannot free itself. If the condition is recognized by or before the end of the third month, if adhesions and other complications are absent, often it is only necessary to thoroughly evacuate the bladder and lower bowel and the uterus will free itself, or it may sometimes be necessary to place the patient in the knee-breast position, and even to administer an anesthetic to restore the organ to its normal position. Lusk, in his work on obstetrics, mentions sixteen cases by E. Martin, in four of which spontaneous reposition followed the evacuation of the bladder, and in eleven reposition was accomplished in the knee-elbow position. No amount of skill is equal to a physical impossibility, and it is quite remarkable that Lusk, who is an acknowledged authority on obstetrics and has done a large consultation obstetrical practice for many

* Read before the Southern Surgical and Gynecological Association, November 15, 1900.

years in New York City, never met with a case of irreducible incarcerated gravid uterus.

One very prominent etiological factor in the causation of this condition which is not mentioned by any of the authorities on obstetrics is unrepaired former injuries of the pelvic floor. An incarcerated retroflexed gravid uterus with the fundus snugly fitted down into the hollow of the sacrum under the promontory, meeting with no resistance from the pelvic floor as pregnancy advanced, goes on increasing uniformly in size until at about four and a half months it will be found to have so moulded itself to the pelvis as to become irreducible.

Barton Cooke Hirst, in his work on obstetrics (p. 212) gives an illustration from a frozen section of irreducible retroverted uterus of three and a half to four months, with death from rupture of the bladder. On page 212 he mentions a collection of fifty-one fatal cases. The following, in order of frequency, were the causes of death: Uremia and exhaustion; rupture of the bladder; septicemia; peritonitis from inflammation of the bladder; pyemia; rupture of the peritoneum and of the vagina; errors in treatment, and gangrene of the colon.

REPORT OF CASE.

Mrs. S., a white woman, of average intelligence, the wife of a farmer, had had previously four normal labors. In her first labor she sustained a complete tear of the perineum. Her menstrual periods had always been normal and regular; in eight or ten months after each of her first labors she began menstruating, but after the fourth labor it was about two years after which her periods came on and continued regular and normal every month until the month preceding the operation. She had never had a miscarriage. I saw the case about the middle of July in consultation with Dr. Dunn, her attending physician, who informed me that, in his opinion, it was an irreducible, incarcerated retroverted gravid uterus. He stated that he and his colleague, Dr. Johnson, had carefully emptied the patient's bladder and placed her in the knee-breast position, had exhausted their skill in efforts to replace the mass, but failed to accomplish it; that they then gave her an anesthetic and tried again, but without success. On examining the patient I found the bladder enormously distended, reaching into the abdomen to a point about 2 inches above the umbili-

~~case.~~ It was emptied with difficulty by catheter. A large, hard, unyielding mass, which completely filled the pelvic cavity, was found. The perineum having been torn the tumor pressed low down upon the pelvic floor.

It was with difficulty that the index finger could be insinuated into the vagina or rectum and it was no easy matter to introduce a catheter into the bladder. The os was found flattened out against the pubes and as high as the length of the vagina would let it rise and could be reached with difficulty. The flexure, which was very acute, was situated just above the internal os. The rectum was pushed hard against the sacrum until only soft ribbon-shaped feces could escape. With the hand on the abdomen, feeling through the thin wall, the mass was found to curve very slightly from the arch of the pubes toward the promontory of the sacrum, under which it fitted snug and fast. Upon the most careful conjoined manipulation absolutely no elasticity or fluctuation could be made out. It seemed to be as unyielding as the hardest fibroid and gave one very much the same impression that one of those cases does in which a large myoma will form a perfect cast of the pelvis and became so tightly impacted that after the abdomen is opened it has to be dragged out of its bed with obstetric forceps and by sheer force. Medicine being of no avail and a spontaneous cure being out of the question and all efforts at relief by manipulation having signally failed, as a last resort we were driven to surgical interference.

The patient was removed to the sanitarium, and on the morning of August 3d a median incision, about 4 inches long, was made, which exposed a very remarkable and unusual sight, namely, the uterus in extreme retroflexion, the fundus bearing down hard upon the perineum, the organ much resembling a tumor with a twisted pedicle. Efforts were made to replace the uterus to its normal position but with poor success, so the incision was extended and the uterus was lifted into the abdominal cavity. The tissues, which were softened and extremely vascular, had broken down under my hand. A quick decision had to be made as to the best course to pursue. It was concluded that if I closed the wound and allowed the uterus and appendages to remain with all of the necrotic tissue the infection already existing would be increased, and, in all probability, death would ensue from septic peritonitis. Extir-

pation promised the best result, and it was done as follows: A thread of cable silk was placed around the uterus just above its junction with the vaginal vault and the uterus amputated through the neck, the uterine arteries were secured and the stump transversely closed with a row of interrupted catgut sutures. The cable silk ligature which had been thrown around the mass was removed and the stump dropped back into the pelvis. Just before closing the abdominal incision I noticed that the cavity was rapidly filling with blood. A quick examination revealed that the tissue had given way under the ligature. Checking the bleeding vessel with a hemostat and a curved needle, another ligature was placed about $\frac{1}{2}$ inch down and tied. The cavity was sponged out, but hemorrhage still continued, and the right vessel was also found in bad tissue, the ligature having partially cut through. This was also tied again. Further examination proved that there was still bleeding, and that neither ligature was holding. By this time things began to look pretty squally and there was great danger that the patient would die on the table from hemorrhage. The bleeding points were caught and rapidly tied, the work being done by touch almost entirely. Finally about $1\frac{1}{2}$ inch below the point of the first ligature sound tissue was found that held the ligature all right, so that bleeding was controlled. The cavity was quickly washed out with hot normal saline solution and left full. The wound was closed with silkworm gut sutures by the through and through method, and the patient put to bed.

Upon examining the specimen the uterus was found to contain a fetus, the arrest of development of which seemed to have occurred between the fifth and sixth months of fetal life. The low fever which had been present continued for two or three weeks and delayed what would have unavoidably been a slow recovery. But, remarkable as it may seem, this woman returned to her home in six weeks from the time of the operation and has since been able to attend to her household duties and to take care of her children.

I was not aware at the time of this operation that abdominal section had ever been advised or practiced before for irreducible, incarcerated retroflexed gravid uterus. The most recent works on obstetrics makes no mention of it, and it was original as far as I was concerned. When I began to write

this paper, however, I searched the literature on the subject and found that celiotomy had been done in similar cases by seven surgeons, namely, Mann, Cameron, McLean, Smith, Da Costa, Fry, Bovee, and in several instances, as in my case, it was done without the operator knowing it had previously been done. The uncertainty of the diagnosis before operation was the experience of some of them.

To Dr. Matthew D. Mann, of Buffalo, belongs the credit of first having done celiotomy for this obstetrical complication. He reported two cases to the American Gynecological Society, at its meeting held in Boston, May, 1898, the first of which was done in November, 1895. Dr. Mann mentioned in his paper the case of Dr. Murdoch Cameron, of Glasgow, occurring about one month later (December, 1895), and reported in the *British Medical Journal* in 1896. The second case of Dr. Mann was operated upon July, 1897.

In the discussion of Dr. Mann's paper it was developed that Dr. H. L. Smith, of Montreal, had done the operation once through an error in diagnosis, he believing that the woman had an ovarian cyst. In the same discussion Dr. Malcolm McLean reported that about three years previously he had encountered a case in which a portion of the uterus was fastened down under the promontory of the sacrum while the remainder of the organ extended up into the abdomen.

Dr. Henry D. Fry, of Washington, D.C., read a paper before this association, at its Memphis meeting, in 1898, entitled, "Celiotomy in the Treatment of the Incarcerated Pregnant Uterus when Irreducible," in which he reported a case on which he had operated in April, 1896. At that time he did not know that it had ever been advised or done previously, for he says: As an alternative for abortion or hysterectomy a new method is here advocated. The gravid uterus, displaced and irreducible by the means that have been at our command when manipulated from below is successfully replaced by operating from above. The abdomen is opened in the usual way, the fundus and the body of the uterus grasped with the fingers, and by manipulation directly applied in this way the displaced organ is lifted from its bed and brought into normal position."

Dr. J. C. DaCosta reported to the section on gynecology of the College of Physicians, of Philadelphia, May, 1897, a case

with adhesions and a cyst of the right ovary operated upon successfully, the patient being delivered at full term of a healthy child. In commenting upon this case DaCosta says: "This operation seems to justify the ground that I have taken for some years past, that the proper way to treat a retroflexed pregnant uterus which is bound down by adhesions is to do a celiotomy to free it.

According to Mann, the alternatives which have been given us up to the present time in cases of retroversion of the gravid uterus with incarceration are either to replace the organ or, that being impossible, to empty it, the argument being that if we leave the uterus displaced the death of the mother and child will result; whereas, if we empty the uterus, the mother may be saved although the child be lost.

This teaching, in the light of recent experiences in abdominal surgery, should be changed, and if it be found impossible by the most approved methods, including the use of an anesthetic to replace the uterus the abdomen should then be opened and the fundus pulled up by the hand introduced behind it. If the uterus be so large as to completely fill the pelvis efforts at replacement through the vagina will fail, not because the uterus is too large to be forced through the pelvic brim, but because filling completely the pelvic cavity when it is pushed up nothing can enter from above to take its place, so that its progress is limited. The moment pressure is withdrawn from below atmospheric pressure forces the uterus down again into its old false position. This occurs even in the knee-chest position. The truth of this statement will be readily appreciated by anybody who has operated on one of these cases. Even if the uterus be soft and yielding it requires considerable manipulation to get it up and it can only be done by letting out the air behind it. It must not be forgotten that pregnancy may exist where there are adhesions, and that these may be an insuperable bar to reposition until they are broken by the hand on the inside, thus giving another indication for operation.