# IMMEDIATE REPAIR OF BIRTH CANAL INJURIES FOLLOWING DELIVERY

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THE care of the woman who has given birth to a child, is so different today from what it was thirty years ago that it may be interesting to state the reasons for certain present-day procedures and the benefit that is supposed to be derived from their use.

Every effort possible is now made to obtain rapid and permanent involution of the uterus.

Subinvolution of the uterus is the cause of many of the ailments following childbirth. Conditions that invite subinvolution of the uterus are, therefore, the ones we are now trying to overcome and avoid, such as needlessly prolonged second stages of labor due to faulty positions of the child and not recognized; dystocia, maternal and fetal; prolonged pressure and stretching of the tissues of the birth canal, resulting in rectoceles and cystoceles; lacerations of the vagina, perineum, and lower uterine segment, all of which have a tendency to produce what we term subinvolution.

For the past few years we have heard, from various parts of the country, about the different methods used by many men to overcome these tendencies, and we have carried on some experiments along these lines, which have proved beneficial to the patients.

Various exercises while the patient is in bed, beginning as early as the second day after delivery; changes in posture; the Fowler position for drainage, and later the knee-chest position to prevent retrodisplacements and for the purpose of emptying the larger veins in the pelvis, thighs, and abdomen, thereby avoiding varicosities and perhaps lessening the tendency to thrombosis in these veins with their resultant bad effects and postpartum displacements of the uterus, which are often permanently corrected. Patients get out of bed feeling stronger, and have less of that dragged feeling with backache which was formerly so common. Constipation is less, and there is better control of the bladder.

The first step in my efforts to obtain good involution begins in properly preparing the patient for delivery. No patient should be delivered with a full bladder. The bladder should be emptied with a catheter before delivery, and if there is time, an enema may be given to cleanse the lower bowel.

I believe that the attendant is *not* responsible for lacerations of the lower uterine segment or cervix following delivery, unless he has

needlessly interfered, or has dilated manually, or has applied forceps before complete effacement of the cervix has taken place, or has attempted version and extraction through an undilated cervix.

Many times I have examined carefully the lower uterine segment and the cervix and os following normal, untouched cases, which were delivered as vertex cases, and I have been surprised at the damage done as compared with those in which intelligent interference was used; from these observations I believe that it is necessary, in order to obtain the best results, to prepare properly the birth canal for delivery.

The statement, previously made, that the attending physician is not always responsible for tears and injuries to the lower uterine segment of the uterus, does not apply so generally to the vaginal canal, as

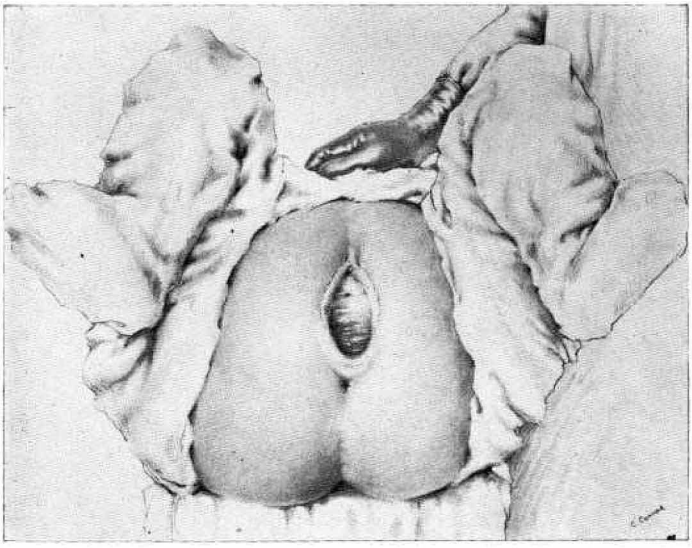

Fig. 1.—Patient in position for examination after third stage of labor.

lacerations of the vagina and perineum can be prevented and should be greatly reduced in numbers and degree, when certain lines of procedure are carried out. In order to accomplish these desirable ends, the patients, after the first stage of labor is finished or during the early part of the second stage, should be given chloroform to the surgical degree. No such term as obstetric anesthesia is used by me. A process of dilating or ironing out of the vaginal canal is begun by first introducing into the vagina one finger and beginning pressure from within out and from above down, then two fingers are inserted and then three fingers and finally the whole hand is introduced, using green soap as a lubricant. Soap is not only used as a lubricant but is a cleanser for the canal. This preparation is carried out in every case, no matter what the position of the child is or what manner of delivery is to be used, as it reduces to a minimum the possible

damage to the soft parts. By such a procedure my patients are not shocked, the elasticity of muscle is not destroyed, facia is not so often broken, allowing rectoceles and cystoceles to occur; and episiotomies are unnecessary. The danger of hemorrhage need not be feared, provided proper management of the third stage of labor is carried out, that is, in not hurrying in the delivery of the placenta and membranes. If the case be delivered as a vertex, time should be allowed for the

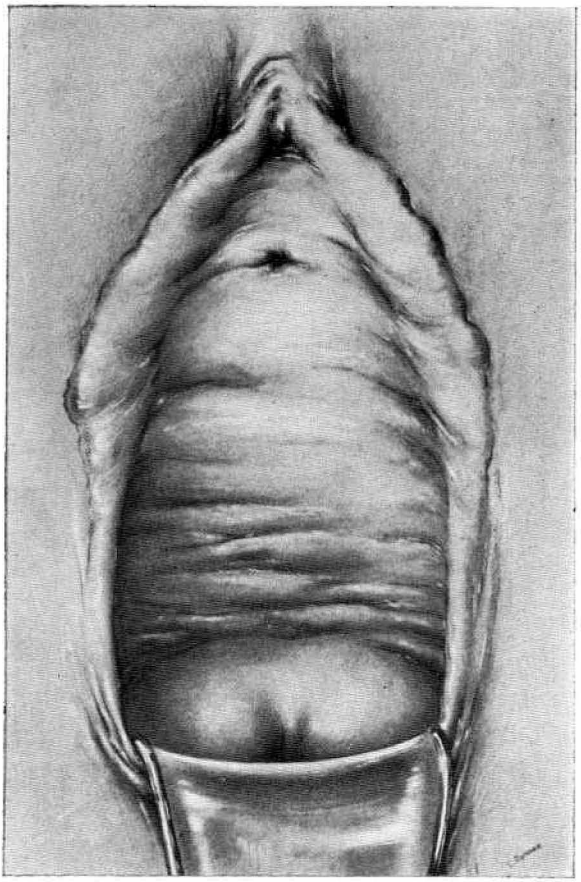

Fig. 2.—Birth canal exposed by speculum.

passage of the head through the vaginal canal, and extension of the head should not be allowed to take place until the occiput is well under the symphysis. When the head is finally delivered as far as the ears, the operator should grasp the occiput firmly and rotate the head to one side or the other, according to the position of the child, and instead of the nose and chin passing over the thinned perineum, they will be delivered sideways, and only the smooth side of the head will pass over the thinned perineum, thereby avoiding tears produced by

the uneven surface of the face. After the head is delivered, it is allowed to assume its natural position of face down.

In the event of forceps delivery—I am speaking now only of mid forceps or low forceps, believing that high forceps operations, so-called, are things of the past—great care should be used in first making proper application of the forceps; then the head should be carefully brought down sufficiently for the instruments to be removed, when the head is delivered without them, exercising the same care to avoid lacerations as one would in a spontaneous vertex case.

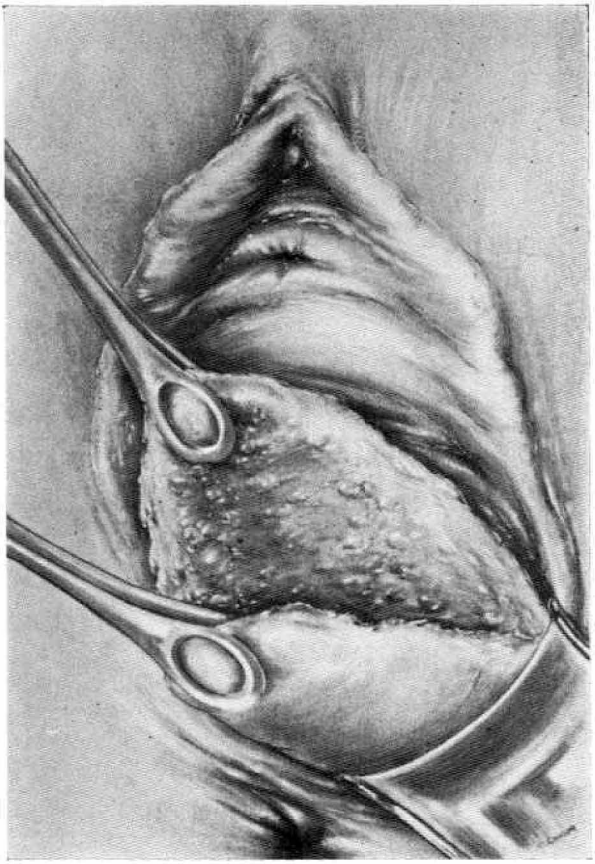

Fig. 3.—Lower uterine segment brought down for inspection.

In version and extraction, the same procedure must be used—first, to iron out thoroughly the vaginal canal until all resistance is overcome; it sometimes requires twenty or thirty minutes to accomplish this. I always wear long rubber gloves in my work, and I introduce the whole left hand into the vagina after it has been dilated, with the palm up, carrying the hand between the membranes and uterine wall, if the membranes have not ruptured, well up toward the fundus of the uterus, separating the membranes around as far as the pla-

centa, and avoiding, if possible, loosening the placenta, as that invites hemorrhage. The membranes are ruptured high up so as to save as much as possible of the amniotic fluid and the arms are now folded across the chest, if they are not already in that position, to avoid the complication of the extended arm, the feet are brought down and delivered, both at the same time between the first and middle fingers of the operator's left hand. From now on the extraction proceeds slowly and carefully to avoid damage to the soft parts of

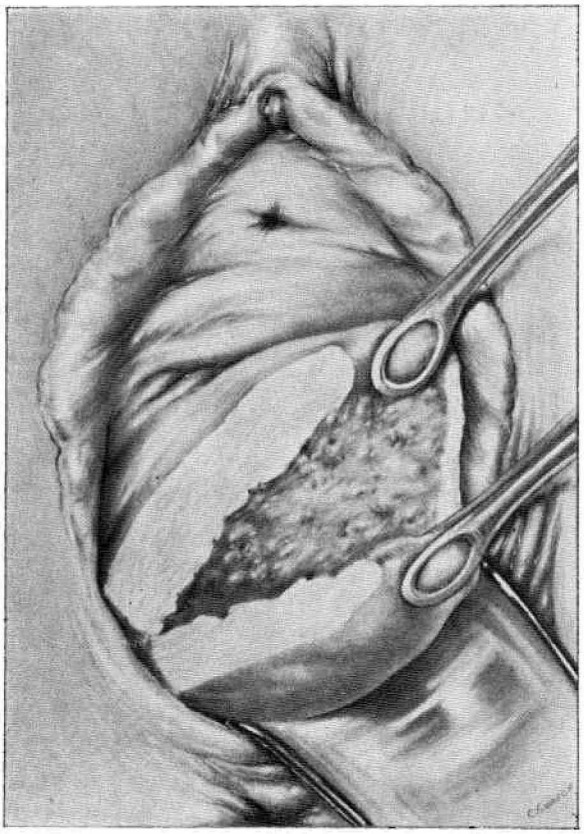

Fig. 4.—Beveling edges of cervix.

the mother and also to avoid injury to the child from too rapid extraction; the knees are now delivered and the buttocks rotate to the hollow of the sacrum, where time is taken to allow the abdomen of the child to adapt itself to the pelvic outlet; then by gentle traction the back is rotated forward, squarely under the pubic arch, and traction is continued until the lower angle of the scapulae are seen, when the finger of the operator is put in the posterior axillary fold and the shoulder is rotated forward under the pubic arch. The child is then

supported on the operator's hand and the posterior shoulder is rotated in the same manner and delivered as an anterior shoulder. Traction is not made downward toward the floor but in the direction of the patient's thighs, which are in a modified Walcher position.

The delivery of the after-coming head is now made as a flexed head by placing the fingers of the operator's left hand on the chin of the child and making pressure on the woman's abdomen above the symphysis with the right hand, thereby pushing rather than pulling the head through the pelvis. Great care should be taken to preserve the soft parts of the mother by not using too much haste in the delivery of the head. The child's body should still be in the direction of the mother's thighs and not bent back over the abdomen.

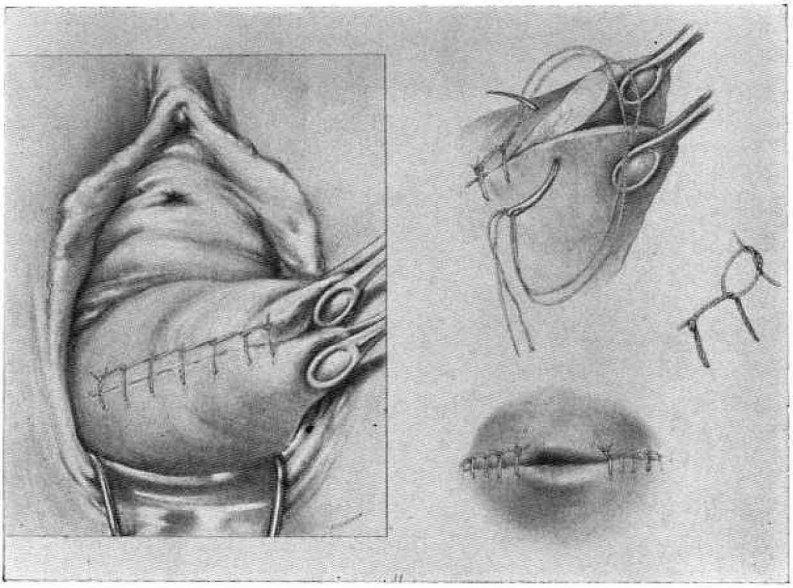

Fig. 5.—Showing insertion of sutures and external os.

Breech cases, after complete effacement of the cervix, are delivered as footling cases, forceps being used upon the after-coming head if necessary.

For all of this work complete anesthesia is necessary, and damage to the vaginal canal and perineum will be reduced to a minimum.

After completion of the third stage of labor and while the patient is still under the anesthetic, careful inspection of the lower birth canal is made to see whether any repairs are necessary; this is accomplished by bringing down the anterior and posterior lips of the cervix with two cervix forceps. This is where I believe that great benefit can be done the patient by opening any cysts in the cervix or by removing them either by a broad sharp curette or with flat scis-

I never have seen strictures of the cervical canal following this work. Drainage from the uterus is always ample and a postpartum examination from six to eight weeks after delivery shows no narrowing of the canal.

For the past three years I have used this method with very gratifying results in more than 1000 cases. I have found that it cures old previously existing cervicitis; it repairs old cervical lacerations, and it is a great aid in accomplishing and maintaining involution.

In primiparae, as a rule, no tissue is removed and sutures are merely placed to bring the torn edges together, thereby reducing future scar tissue to a minimum.

In old multiparae near the menopause, no attempt is made to save the cervix. I curette or cut down until I reach healthy tissue, and then bring the edges together in the manner heretofore described. This does away with all previous cervical erosions and cures, as near as anything will, the cervicitis which was due to the infection of the cervical glands, and can only be reached at this time and in this manner; this renders treatment with the cautery afterwards unnecessary. I never have seen any bad effects in subsequent labors. It does not delay the patient's stay in the hospital, in fact, if anything, it lessens the stay by bringing about a more perfect and speedy involution.

Patients return for final examination in six weeks, and many times it is difficult to say whether or not a full-term child had been delivered through that canal. At this time a sound can be introduced into the uterus to see that a proper canal exists, and if necessary, it can be dilated while the tissues are soft and yielding. Tears in the vaginal canal and perineum should always be repaired immediately. If such an unfortunate result as a complete tear into the bowel occurs, immediate repair should be attempted in the hope that possibly a good result will be obtained. Failing in this, no further attempt at repair should be made until lactation ceases and menstruation appears, as then proper operative procedures can be better carried out.

This work which I have been engaged in for some years has also been done by Dr. J. L. Bubis, of Cleveland, and is reported in an article in THE AMERICAN JOURNAL OF OBSTETRICS AND GYNECOLOGY, August, 1925. He, however, extends the procedure and includes the repair of old cervical lacerations and the repair of cystoceles and rectoceles and has operated upon 152 cases very successfully. However, I am inclined to believe that there is some risk in this extensive work and not enough accomplished in securing involution; perhaps a better repair can be brought about later, but to neglect the repair of an old lacerated cervix with all of its associated pathology is wrong in the light of our present knowledge, because a proper involution of

DR. D. L. JACKSON, BOSTON, MASS.—I was taught that secondary repair, that is, denuding an area of the mucous membrane of the perineum and sewing it up, could not be accomplished after labor and that, if it was done, the probability of its holding was very slight. I would like to report that in the last few years I have seen four cases where a complete tear of the perineum was present. Following a subsequent delivery in each of these cases, I denuded and did attempt to get the ends of the sphincter together and to get support from the lateral muscles with a completely satisfactory result in each instance. The only difficulty, I think, to be encountered is due to bleeding from the extensive venous supply.

DR. POTTER (closing).—This work can be done in from three to five minutes, and it does not jeopardize the condition of the patient at all. Perhaps I have made too many of these repairs. In my enthusiasm I have done it routinely. I wanted first to perfect a technic, and I wanted to see the results. I do not think it is open to criticism at all to say that this thing should be done routinely.