VAGINAL CESAREAN SECTION FOR ECLAMPSIA AND OTHER CONDITIONS.*

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In advocating vaginal Cesarean section for the treatment of eclampsia, it is not the purpose of this paper to hold that it is the *only* treatment in this condition; but, admitting pregnancy as the exciting cause of the convulsions, the writer maintains that this method of emptying the uterus is the quickest and best, after the third month of pregnancy.

To Peterson of Ann Arbor, probably, belongs the credit of bringing this operation fully before the profession in this country. It is not my purpose to burden you with a large array of statistics bearing upon this subject, but more to lay before you the indications and technic for vaginal Cesarean section for this condition, and to report a series of fourteen cases treated by this method.

We must all agree that the tendency of obstetric procedure has been conservatism; the least amount of interference has been the key-note of all the teaching. It seems as though the results obtained by the early operators has made such an unfavorable impression upon the profession, that the progress in obstetrics has been slow—much more so than in any of the other specialties.

Whatever the cause of eclampsia may be, all authorities seem inclined to agree that the prognosis improves after the uterus is emptied. If that be the case, then the question arises, what is the best method of emptying the uterus? Is it manual, instrumental, or bag dilatation? The writer prefers vaginal Cesarean section, or vaginal hysterotomy.

The indications for the rapid emptying of the uterus are briefly stated as follows: Eclampsia with or without convulsions; central placenta previa; accidental hemorrhage; prolapse of cord; dangerous heart condition in mother; advanced tuberculosis in mother, and hemorrhages, due to malignancy or hydatid mole.

It is my purpose to report cases of eclampsia, central placenta previa, accidental hemorrhage, and of valvular heart lesion, in which the uterus was emptied with satisfactory results with the aid of vaginal

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hysterotomy. Those who have dilated, manually, a hard unyielding cervix know what a long tiresome unsatisfactory process it is. I do not believe that the cervix under these conditions can be dilated without tearing. The operator in attempting to dilate a rigid or diseased cervix, manually or with instruments, simply tears this organ on one side or the other. Severe hemorrhage is the results, which further weakens the patient and opens new avenues for infection. Then, too, the element of time, which is so important, must not be lost sight of.

How different is the method of vaginal hysterotomy? It is a clean surgical procedure, requiring few assistants and not necessarily a hospital operating room. It is an operation that can be performed anywhere and at any time, with no more danger to the patient than there is in doing a version. The preparation of the patient is the same as for any other vaginal operation: An enema of soap and water; shave the external genitalia thoroughly; sterilize the vagina with soap and water and irrigate copiously with normal saline solution, and empty the bladder with the catheter.

The patient is placed in the lithotomy position on a table well padded and covered with a Kelly pad. Her legs are supported by two assistants or, if no assistants are at hand, are held well flexed by an ordinary leg-holder. A weighted speculum is then introduced into the vagina; and, if assistants are at hand, two smaller specula are used to draw the sides of the vagina apart. This, however, is not absolutely necessary, but it facilitates the work of the operator. Then two single-tooth tenacula forceps are hooked into the anterior lip of the cervix, which is then drawn down as far as possible, and firmly held there. Two strands of silkworm gut can be used for the same purpose. Then a transverse cut is made with a knife, or pair of scissors at the point of union of the cervix and anterior vaginal wall. This opening may extend on either side as far as is needed. The depth of the incision extends to the point where the tissue peels easily with a piece of gauze. At this point there is no bleeding. The bladder is thus separated and pushed upward and out of the way. Thus the anterior lip of the cervix and bladder are entirely separated. If more room is required, the posterior cervical lip is treated in the same manner, separating it from the rectum. There is, usually, very little hemorrhage. Then with a long pair of straight scissors a cut is made in the median line along the anterior lip of the cervix, extending up as far as needed to introduce the whole hand into the uterine cavity. The posterior lip of the cervix can be treated to a similar incision if

more room is required. It is better to have two incisions than to be cramped for room. The membranes are then ruptured and the child delivered with the aid of the forceps or version. The placenta and membranes are delivered immediately.

The repair work is done in the reverse order beginning in the upper angles of the uterine wound. Chromic catgut No. 2 in a curved needle placing the sutures, interruptedly or continuously, down to the external os. The transverse incision is then closed with a continuous suture of plain catgut. It is well to provide drainage in this incision. To prevent the formation of a hematoma. The patient is then put to bed, and treated in the usual manner following operations in the vagina.

What is the danger to the child in this procedure? No more, nor less, than that which depends upon the existing toxemia, or any other condition which demands the operation.

What are the dangers to the mother? The principle danger appears to be injury to the bladder, either when the incision is made or by subsequent sloughing. In 530 cases of vaginal hysterotomy Peterson found nine bladder injuries. Hemorrhage should not constitute a serious complication. The danger of sepsis always exists, but in careful hands, it is reduced to a minimum. The effect of the operation upon succeeding childbirth is somewhat uncertain; however, no serious results have been reported so far. I wish to report the following cases:

CASE I.—Mrs. G., German, aet. forty-one para-x. Duration of pregnancy, eight months. Saw patient in consultation with Drs. Frank McGuire and Geo. B. Stocker, June 21, 1911, with a view to terminate her pregnancy on account of chronic heart disease. Patient's condition was alarming. She was unable to lie down; feet were badly swollen, and breathing difficult. We determined to wait till full term, if possible; but, after watching for one week, I was sent for again. Her blood pressure at this time was 220. On June 27, Dr. Stocker administered ether; and, with the assistance of one nurse, I delivered her in her home of a live baby with the aid of vaginal Cesarean section. Duration of operation, twenty minutes. The patient died two months later of heart disease.

CASE II.—Mrs. W., German, aet forty, para-vi. Duration of pregnancy, eighth months plus. Patient was seen at 1 P. M., November 9, 1911. She had had "several" convulsions in the morning. No dilatation of cervix. We took her to St. Mary's Hospital at 4 P. M. Had convulsions while on the way there. Vaginal Cesarean section was performed at 5.30 P. M. Child lived. Patient had five convulsions during the following night, but made a good recovery. This was the second time I had attended this woman in eclampsia.

CASE III.—Sophie C., unmarried, aet eighteen. Entered St. Mary's

Hospital at 2 A. M., February 3, 1912. History of headache, loss of vision, and convulsions during previous day. Urine loaded with albumen. Vaginal Cesarean section was performed at once. Male child was delivered alive, but died shortly after. This patient continued to have convulsions, and died at 1.30 P. M. Consciousness never returned during the intervals of the attacks. According to Dr. Zinke, the prognosis in these cases is always bad.

CASE IV.—Julia M., married, aged nineteen. Full term, pregnant for first time. Saw her February 15, 1912, with Dr. James P. Barr, at 10 A. M. The day before she had eight convulsions. The day I saw her, she had had four convulsions. Urine scanty and boiled solid in tube. Vision poor and headache. Taken to St. Mary's Hospital, February 15, where I delivered her of a live child. Operation and repair took forty-five minutes. She was given croton oil, hot-air baths, and fluids. She did well for three days, when she had one convulsion. No more after that, and mother and child left hospital in good condition. Have since learned she was pregnant again, but have had no chance to examine her.

CASE V.—Mrs. B., aged twenty, seen March 26, 1912, at St. Mary's Hospital with Dr. J. H. Donnelly. Pregnant for the first time. No urine in bladder; tongue coated. Had had numerous convulsions during the day. Uterus emptied by vaginal Cesarean method, cervix admitting only one finger. Child was dead. Mother died at 4 P. M. same day. Another of the type of cases that does not regain consciousness between convulsions.

CASE VI.—Mrs. G., aged twenty-one. Seen with Dr. Hengerer, at the German Hospital, July 22, 1912, at 10 P. M. Had had four convulsions; urine scanty and boiled solid. By the vaginal Cesarean method, I delivered her of a male child, doing version. Mother and child left hospital in good condition. No convulsions following delivery.

CASE VII.—Mrs. C., aged forty. Pregnant for ninth time. Seen with Dr. E. E. Koehler at her home, February 10, 1913. From condition of patient, I diagnosed internal hemorrhage, probably from loosened placenta due to injury. Her condition was extremely critical. I did a vaginal Cesarean section at once, no anesthetic being used. Found placenta loose in uterus, and uterus full of blood; baby dead. Patient put to bed but died shortly after. No doubt this patient could have been saved, had the midwife who was first in attendance called for help sooner.

CASE VIII.—Maria F., aged twenty-five. Seen at Buffalo General Hospital, February 12, 1913. Pregnant for the first time; had had nine convulsions after entering hospital. Urine contained albumen and casts, 60 grams of albumen to 1000 c.c. of urine. Delivered by vaginal Cesarean section of live child, which lived seven hours. Patient had no convulsions after delivery, and left hospital in good condition.

CASE IX.—Mrs. D., aged twenty-two. Pregnant for first time. Seen at Buffalo General Hospital, March 2, 1913, with Dr. Van Peyma, at 8 P. M. Patient admitted at 3.30 P. M. Urine scanty and boiled solid in tube. Unconscious and blind, having convulsions when admitted. She was given veratrum; was bled from the arm; saline

under skin. At 10 P. M. Dr. Getman heard fetal sounds; at 10.30 P. M. I did vaginal Cesarean, delivering by version, a stillborn baby. Patient recovered.

CASE X.—Mrs. C., pregnant for first time. Aged, twenty-four. Sent to St. Mary's Hospital by her physician, Dr. Hill, of Ferry Street. Patient had had numerous convulsions during the forenoon. Husband did not know what they were until told by Dr. Hill. Vaginal Cesarean section at 2 P. M. Child alive. Patient had no more convulsions, and left hospital in good condition.

CASE XI.—Mrs. W., aged twenty-two; first time pregnant. Entered St. Mary's Hospital, May 20, 1913. Seen with her physician, Dr. Flannery. Had had five convulsions before entering hospital. Delivered of stillborn child at 3 A. M., ten convulsions following delivery. Given veratrum veridi, pulse dropped to 60. No convulsions on following day. Patient was seven months pregnant. Left hospital in good condition.

CASE XII.—Mary K., twenty-nine years old, third time pregnant. Sent from Sisters' Hospital to St. Mary's Hospital, June 13, 1913. Mental condition cloudy; urine scant and contained albumen and casts (2 grams to 1000 c.c. of urine). Was treated by sweats, catharsis and fluids until June 16, when she became worse, and I delivered her of a live baby by vaginal Cesarean section at 3 P. M. Baby lived one-half hour, and mother died at 5 A. M. following day.

I think I did wrong to wait as I did. She should have been delivered sooner, but, as she had no convulsions, I thought best to wait.

CASE XIII.—Vaginal Cesarean section for central placenta previa. Mrs. E., aged thirty-three. Pregnant first time. Seen with Dr. Edmonds and Dr. McDowell. Patient full term. Seen 1.15 A. M., September 7, 1913. Diagnosis: central placenta previa. No fetal movements felt for past ten days. First hemorrhage, one month previous—severe. Second hemorrhage, one week before—not so severe. On September 7 had a severe hemorrhage. I found cervix not dilated; bleeding profuse. I did a vaginal Cesarean section, delivering stillborn baby through the placenta. Patient made a good recovery. This would have been a case for abdominal Cesarean section, had there been a live child.

CASE XIV.—Mrs. M., aged twenty-three. Pregnant first time; seen with Dr. C. E. Abbott, December 13, 1913, at St. Mary's Hospital. Patient had been in hospital for three days under Dr. Abbott's care for threatened eclampsia. Blood pressure ranging between 180 and 220. First convulsion 5.30 A. M., December 13; second one at 8.30, A. M. I did a vaginal Cesarean section, delivering live baby. Blood pressure after delivery 180. Two convulsions following delivery. Veratrum given. Urine increased second twenty-four hours after delivery to 118 ounces. Mother and child left hospital in good condition.

This completes the history of these cases. It is unfortunate that we cannot always follow up these cases, especially with reference to future pregnancy.

I regret exceedingly that I did not deliver Case XII sooner. Possibly she might have lived.