

## THE TREATMENT OF PLACENTA PREVIA, BASED UPON A STUDY OF THIRTY CASES.

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In the last eight years the writer has cared for thirty cases of placenta previa, twenty-five of which presented points of special clinical interest. These cases of hemorrhage were some mild, some severe.

During these years some innovations in the treatment of placenta previa were introduced, especially the use of the colpeurynter. The accouchment forcé for a time had some vogue and, latterly, Cesarean section has been suggested to meet formidable cases.

All these methods are the result of an urgent desire to improve the chances of the infant. Under the older method of Braxton-Hicks' version, the mothers could almost all be saved but a large percentage of the children were lost. That the mortality of both mother and child in placenta previa needs improvement, there is no doubt. Fütth<sup>1</sup> showed in one German county a mortality of 38 per cent. for the mothers and 80 per cent. for the children, and Gillette<sup>2</sup> for the United States a mortality of 15 per cent. and 44 per cent. respectively. The latter, therefore, recommends Cesarean section for placenta previa.

The writer does not believe that such heroic measures are needed in the treatment of placenta previa. As is seen by the following cases, the maternal mortality may be reduced to zero by the usual obstetric methods. To do a Cesarean section simply to improve the percentage of the infant recoveries is not yet justifiable and one may not be able to combat the hemorrhage by it any better than from below. Retraction of the uterine muscle is not good in the cervix and, therefore, hemostasis is uncertain. This is well appreciated by one, who, at a Cesarean section, inadvertently makes the uterine incision too low, troublesome oozing from the womb resulting. It is probable, if Cesarean section for placenta previa were tried generally, that many extirpations of the uterus because of hemorrhage would be necessary. Such mutilation is to be deprecated.

Accouchment forcé is deservedly unpopular; there is too much danger of rupture of the cervix and it is well known that even a superficial tear may open a sinus and may lead to fatal hemorrhage. Whether the new instrument of Bossi, for rapid dilatation of the cervix, may be used successfully in placenta previa remains to be seen.

The writer, basing his judgment on thirty cases to be reported, feels justified in making the following statements:

I. A woman with placenta previa ought not to die, except in rare instances, such as air embolism or the hemorrhagic diathesis.

II. A case of placenta previa should not be half-heartedly treated. If the child is viable, labor should be induced. When the hemorrhage is very moderate one may wait, provided that the patient remains in bed and is in a well-appointed hospital.

III. No one method of treatment will meet all cases. The accoucheur should have all known measures at his command.

IV. The young practitioner should follow Schroeder<sup>s</sup>, who says: "That accoucheur will have the best results in placenta previa who has the least regard for the child."

Medical writers whose words are read by the general profession, and medical teachers whose precepts are followed by, at first, blind and inexperienced hands, should be careful what they recommend for universal practice. One should recommend to those of less skill only such measures as in such hands may lead to the best results. The man with his first case of placenta previa, therefore, should direct his efforts to saving the mother. Later on, when the parturient canal is no longer a blank space, when dexterity has been acquired and, rarest and most difficult of attainment of all, obstetric judgment has become a possession of the accoucheur, he may make an earnest effort to improve the mortality of the child.

V. Placenta previa is a formidable condition, more formidable than most laparotomies, and to insure the best results the patient should be in a well equipped, obstetric operating room.

VI. The best way to induce labor is to puncture the bag of waters and to put a colpeurynter in the uterus, resting on the placenta and pressing this against the cervix, and then to put traction on the tube.

VII. After labor is inaugurated, or should the case be received when it is already begun and hemorrhage more or less severe has occurred, the treatment should be pursued with vigor and the doctor must not leave his patient till she is delivered and all danger is past.

VIII. The treatment then, is as follows:

The objects are, (1) to stop the hemorrhage; (2) to empty the

uterus; (3) to secure contraction and retraction of the uterus; and (4) to ensure complete hemostasis. The state of the cervix and the degree of hemorrhage indicate the course to pursue.

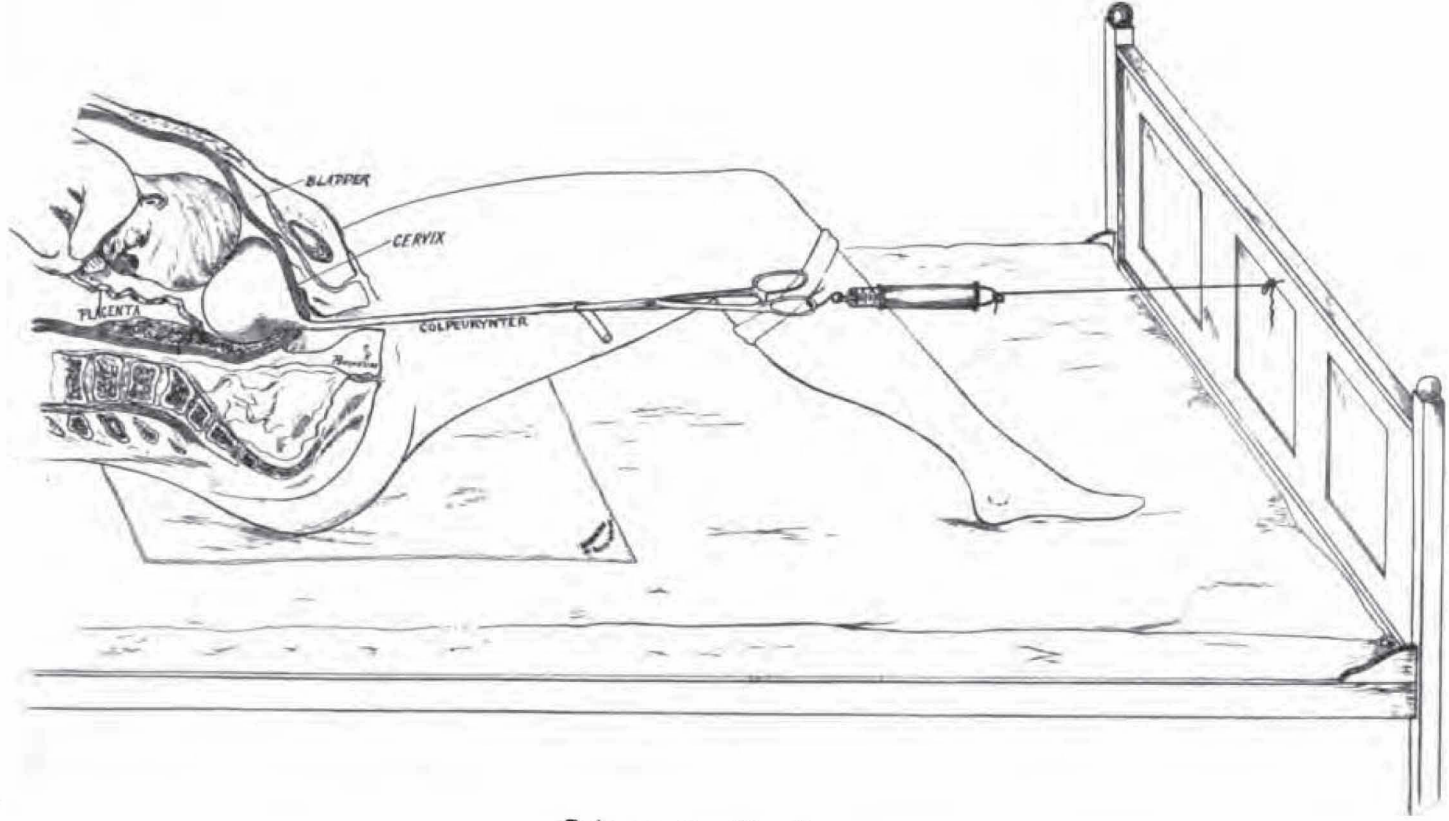
1. If the hemorrhage is slight, the pains regular and strong and the cervix dilating satisfactorily, these conditions usually being present with a marginal or only slightly lateral insertion, one must wait, watching the patient carefully. If the hemorrhage becomes greater, although it may yet be very far from alarming, puncture the bag of waters. This method has been called that of Puzos (1759). This usually will stop hemorrhage, the placenta being allowed to retract with the utero-cervical wall and the head slipping down, forcing it against the open sinuses. If this does not stop the hemorrhage and if the cervix is completely dilated, deliver at once by forceps if the head presents; by the breech if the latter presents, by podalic version and extraction if the head is not engaged. If the cervix is not completely dilated the case falls into the second class.

2. The usual condition found is more or less profuse bleeding, the cervix admitting two fingers or more. Pains may or may not be present but some uterine action must have occurred to have caused the hemorrhage. For these cases the tampon has been recommended (Wiegand), also detachment of the placenta (Simpson), Barnes' bags, ergot, rupture of the membranes, alone or combined with other methods. The writer finds only two procedures worthy of mention: Braxton-Hicks' version, bringing down one foot; and metreuryesis, as recommended by Mäurer and Dührssen. The former method is the older, being mentioned by Rigby in 1775 but brought to perfection by Braxton-Hicks in 1865, and soon adopted by nearly all obstetricians. Braxton-Hicks' version is performed as usual, taking extra care to interfere with the placenta as little as possible. The leg is brought down, slight traction made upon it until the breech tampons the cervix and stops the hemorrhage. The case is now left to nature, assisted by such gentle efforts as one might render in a breech case, only still more gentle. The breech, besides tamponing the lower segment and cervix and pressing the placenta against the uterine wall, mechanically occluding the open sinuses, provokes pains and enables the uterus to act with advantage. If the bleeding recurs, a little traction is made on the leg and this may be continued until the cervix is ready for safe delivery.

Let me warn against too great traction and too rapid or too early delivery. The cervix in cases of placenta previa is altered so that it seems more distensible than it is. The placental site, with its large sinuses and immense blood supply, is in the zone of dilatation, and a

laceration, however superficial, is bound to open a vessel of greater or less magnitude. The retractile power of the lower segment is slight, and, therefore, a hemorrhage from such a laceration is often obstinate and sometimes furious. In a woman already anemic or shocked, a fatal termination may easily be precipitated. Braxton-Hicks and Schroeder enjoin slow delivery on this account.

The only objection to this mode of treatment is the high infant mortality, and this gave rise to the treatment by metreuryesis. Mäurer, in 1887, brought out this method, but, owing to the labors of Dührssen, it became generalized. It is applicable at any stage of labor when the cervix is not large enough to permit delivery. It may be used to induce labor, as already mentioned, and it may be used if version has been tried and failed. After proper preparation of the parts, the bag, Carl Braun's colpeurynter, which is sterilized by boiling twenty minutes in plain water, is rolled into as compact a roll as possible, grasped by a long, blunt forceps and under the guidance of one or two fingers is placed inside the membranes, resting on the fetal surface of the placenta and the lower part of the uterus and cervix. Still retained by the finger while the forceps is removed the bag is slowly filled by means of a Davidson syringe with a weak lysol solution, using twelve to sixteen ounces. As the bag unfolds, the finger can feel it press against the placenta. The head is pushed to one side or directly upward. The tube is clamped with an artery forceps and traction is made on the bag by means of it. The bag acts like the breech—stops hemorrhage, excites pains, dilates the cervix. If the case promises to take a long time, a tape may be fastened to the forceps and attached under tension to the foot of the bed and a scale inserted to register the amount of tension. The writer prefers to use the hand, relaxing the tension occasionally to allow the blood to enter the cervical tissues. Any organ under constant pressure becomes anemic. The tension ought not to exceed two pounds; one pound is often enough. The pains wake up in from twenty to thirty minutes. They are usually irregular but are strong and the bag is expelled in from two to eight hours. This depends on the amount of water put in it, the pains and the traction. As the bag goes through the cervix, the patient complains of severer and sharper pains and often bears down. The physician now should stand ready, fully prepared for any operation. He should draw out the bag and immediately put the whole hand into the vagina, quickly determining if the cervix is completely dilated and if the head has followed the bag and engaged in the pelvis. If both have occurred the hemorrhage has ceased and, if the fetal heart tones are normal, the case may



**Colpeurynter Bag in use.**

be left to nature. If the cervix is not dilated completely, the operator may do version or replace the colpeurynter and fill it with a quantity of water that will make it the size of a fetal head—about twenty ounces. The previous performance is repeated and then the child may be delivered without delay, by version or forceps, depending upon the conditions.

If, at any time before the cervix is dilated fully, there should arise an indication on the part of the child to deliver at once it will have to be disregarded. The danger is too great for the mother. An indication for rapid delivery will not arise on the part of the mother, because we can stop the hemorrhage by making a breech presentation or by the colpeurynter. Great hemorrhage and collapse do not indicate rapid delivery; on the contrary, the sudden emptying of the uterus may add to the shock and turn the delicate balance against the woman. In these cases, where the hemorrhage is great, the quickest and most definite means of stopping the flow of blood is by version and tamponing the lower uterine segment with the breech. One then has the case entirely under control and in such an emergency this procedure cannot be too heartily recommended. The patient may now be stimulated and salt solution injected.

3. Should placenta previa occur in a primipara or in others and the cervix be closed so that one finger cannot be inserted, the case becomes more formidable. For these cases the tamponade and the vaginal application of the colpeurynter have been recommended. There are objections to both, on the score of sepsis from the one and inefficiency of the other. The writer has never failed to pass the colpeurynter into the uterus, so that the method of Mäurer and Dührssen has been successful in the treatment of placenta previa when the cervix was not large enough to permit a Braxton-Hicks' version.

4. Highly important is the treatment during the third stage. Not a few women have been safely piloted as far as this and then lost. Some laceration of the cervix occurs in every labor. In placenta previa, for reasons already mentioned, even a tiny and superficial tear may cause severe hemorrhage, and if the laceration is of any considerable extent a terrific hemorrhage may be expected. The lower uterine segment is poorly supplied with muscular fibers, contracts poorly on the placental site, which, therefore, bleeds from atony. The placenta being situated so close to the septic vagina, infection not rarely occurs during pregnancy, which makes the organ adherent in the lower pole of the uterus and, therefore, the retention of the placenta or membrane is common and again there is hemorrhage. The separation and expul-

sion of the placenta are for the same reason delayed and the manual removal of the afterbirth and membranes is not seldom necessary. It is advisable to remove the placenta at once in placenta previa cases and, if the usual means are not immediately successful, to insert the hand for that purpose.

Owing to the softness and vascularity of the cervix, it may be impossible to sew up a tear or to sew it up quickly enough to save an already exsanguinated woman. Therefore, in every placenta previa case be well prepared for hemorrhage post partum. Have hot water, gauze for packing the uterus and the appropriate instruments close at hand, and *do not waste valuable seconds on uncertain methods of hemostasis* but, if the bleeding is more profuse than it should be or even if it is only moderate (it should be but little), *tampon tightly the whole utero-vaginal tract*. For this purpose the writer uses gauze wrung out of  $\frac{1}{2}$  per cent. lysol solution.

Before, during and after delivery in a case of placenta previa it may be necessary to treat the attendant anemia. If the woman has lost considerable blood, give her saline solution in large amounts under the skin—not per rectum, because the latter method interferes with the local treatment. Give it even if the hemorrhage is going on, as the woman does not then lose pure blood; she loses blood mixed with salt solution, which is less valuable; also it is supposed by some that the salt solution increases the coagulability of the blood.

In the report of the following cases, the writer has avoided the use of a table but has put the various points to be brought out in numerical order, which order is held throughout the whole series, so that whoever desires to look up any one feature can do so by referring to the numbers. The following items have been brought out in each case:

1. Age.
2. Parity.
3. Previous abortions.
4. Character of previous labors.
5. The time of hemorrhage in this pregnancy.
6. The period of pregnancy.
7. Whether the woman was in labor or not.
8. The extent of the cervix covered by the placenta.
9. The position and presentation.
10. The dilatation of the cervix.
11. The severity of the hemorrhage and the condition of the mother.
12. The third stage of labor.

13. The result to the mother.
14. The result to the child.
15. The treatment and remarks.

Case I. Mrs. R—i: (1) Age 31; (2) V para; (3) no abortions; (4) previous labors, post partum hemorrhage; (5) hemorrhage began with labor, severe; (6) patient at term; (7) in labor; (8) placenta previa marginalis; (9) L.O.A.; (10) cervix completely dilated; (11) hemorrhage severe but the patient's condition good; (12) the third stage abnormal; placenta adherent; placenta marginata; (13) mother recovered; (14) child saved; (15) hemorrhage ceased after the rupture of the bag of waters; Kristeller expression, rapid delivery.

Case II. Mrs. T—s (colored): (1) Age 28; (2) IV para; (3) no abortions; (4) fibroids, no dystocia in previous labors; (5) hemorrhage began three weeks ago after exertion; continuous since then; (6) patient at term; (7) in labor; (8) half of the cervix covered by placenta; (9) L.O.A.; (10) cervix admits four fingers; (11) patient quite anemic; hemorrhage severe; placenta membranacea; (13) mother recovered; (14) child saved; (15) the head entered the pelvis and the hemorrhage ceased after rupture of the bag of waters; labor normal.

Case III. Mrs. F—m: (1) Age 31; (2) IV para; (3) no abortions; (4) labors normal; (5) hemorrhage began with labor; (6) patient at term; (7) patient in labor; (8) placenta previa marginalis; (9) L.O.A.; (10) cervix admits three fingers; (11) hemorrhage slight, patient in good condition; (12) third stage abnormal and placenta succenturiata adherent over os; (13) mother recovered; (14) child saved; (15) normal delivery; expectancy.

Case IV. Mrs. F—n: (1) Age 33; (2) XI para; (3) two abortions; (4) one placenta previa in previous pregnancy; (5) patient had stillidium sanguinis for five weeks, under the care of midwives and doctors; (6) now at term; (7) not in labor; (8) placenta covers the entire os; (9) presentation cephalic; (10) cervix admits two fingers; (11) patient almost dead from hemorrhage; fainting, pupils dilated; (12) third stage normal; placenta has old organized clot; (13) patient died of sepsis; (14) child died after version; (15) Braxton-Hicks' version was performed and the case left to Nature; no hemorrhage after this; salt solution; patient died of acute sepsis on the fourth day.

Case V. Mrs. L—e: (1) Age 35; (2) XVI para; (3) no abortions; (4) previous labors normal; (5) patient has been bleeding for thirty-six hours; (6) is at term; (7) and labor beginning; (8) placenta covers one-half the cervix; (8) R.O.P.; (10) cervix admits



two fingers; (11) patient in bad condition; severe symptoms of anemia, pulse 110; (12) severe post partum hemorrhage; manual removal of the placenta; placenta encircled the os; (13) mother recovered; (14) child died suddenly, before extraction; (15) at the beginning the membranes were slightly separated with the finger, hemorrhage ceased; spontaneous rupture of the bag of waters, renewed hemorrhage; Braxton-Hicks' version tried but hemorrhage too severe, wherefore colpeurynter; expelled in two hours; then version; case to Nature. Child died, the result of pressure upon the prolapsed cord before the cervix was sufficiently dilated to extract.

Case VI. Mrs. McE—y: (1) Age 30; (2) IV para; (3) no abortions; (4) previous labors unknown; (5) had been bleeding six hours; (6) patient in the sixth month of pregnancy; (7) labor was induced; (8) placenta covered three-quarters of the cervix; (9) presentation cephalic; (10) cervix admits three fingers but not effaced; (11) patient in good condition; (12) there was no post partum hemorrhage but the uterus had to be cleaned out; (13) mother recovered; (14) child saved—weight  $4\frac{1}{2}$  pounds; incubator; (15) rupture of the bag of waters, colpeurynter, then version and slow extraction.

Case VII. Mrs. B—i: (1) Age 21; (2) II para; (3) one miscarriage at nine weeks; (4) no previous labor; (5) patient has been bleeding every month profusely, lasting one week; (6) patient was in seventh month of pregnancy; (7) no pains but bag of waters ruptured; (8) the placenta covers half of the os; (9) cephalic presentation; (10) cervix admits one finger; (11) patient's condition fair; pulse 120, hemorrhage had been severe; (12) third stage abnormal; placenta was so adherent that all could not be removed; placenta circumvallata—crater-like; (13) mother recovered; (14) child died before patient's admission to the hospital; (15) version attempted but impossible; then the colpeurynter; spontaneous delivery.

Case VIII. Mrs. H—n: (1) Age 28; (2) II para; (3) no abortions; (4) previous labor normal; (5) had been bleeding four days; (6) was in the eighth month of pregnancy; (7) labor beginning; (8) the placenta covered one-quarter of the os; (9) cephalic presentation; (10) cervix admits four fingers; (11) patient in good condition; (12) third stage abnormal, placenta adherent, was cleaned out; post partum hemorrhage; Breisky compression of the uterus; (13) mother recovered; (14) child saved; (15) patient had been tamponed by outside physician; puncture of the bag of waters; spontaneous delivery.

Case IX. Mrs. H—s: (1) Age 27; (2) V para; (3) no abortions; (4) previous labors normal; (5) patient has been bleeding fre-

quently for four weeks; (6) is at term; (7) not in labor; (8) placenta covers the os entirely; (9) R.O.P.; (10) cervix admitted one finger; (11) patient in fainting condition, although the pulse was good; hemorrhage moderate; (12) third stage normal; the placenta came before the child; (13) mother recovered; (14) child died; (15) labor was induced by the colpeurynter, then version, during which the placenta became detached and the child died before it was safe to extract.

Case X. Mrs. K—z: (1) Age 23; (2) II para; (3) one abortion; (4) patient has chronic endometritis; (5) severe hemorrhage for four days; (6) was eight and one-half months pregnant; (7) not in labor; (8) placenta covers the internal os; (9) L.O.A.; (10) cervix admits two fingers; (11) patient very anemic, pulse 110, hemorrhage had been severe; (12) third stage normal, signs of endometritis on placenta; (13) patient recovered; (14) child died before writer came to case; (15) manual dilatation of the cervix, version and slow extraction.

Case XI. Mrs. H—s: (1) Age 25; (2) IV para; (3) three still births; (4) previous labors, one, macerated twins, cause (?); (5) hemorrhage profuse, off and on, for a day; (6) patient in seventh month; (7) not in labor; (8) placenta covers two-thirds of the cervix; (9) S.L.P.; (10) cervix not effaced, admitted one finger; (11) hemorrhage severe; (12) third stage normal; (13) mother recovered; (14) child saved; (15) punctured the bag of waters; colpeurynter, then brought down a foot and extracted.

Case XII. Mrs. S—r: (1) Age 30; (2) II para; (3) no abortions; (4) previous labor easy; (5) patient has been bleeding for four weeks and has been in bed; (6) now in the ninth month; (7) in labor; (8) placenta previa marginalis; (9) R.O.A.; (10) cervix dilating satisfactorily; (11) hemorrhage not severe until child about to come; (12) very severe post partum hemorrhage; placenta removed manually and uterus tamponed; (13) mother recovered; (14) child saved; (15) expectant treatment.

Case XIII. Mrs. N—k: (1) Age 34; (2) IV para; (3) no abortions; (4) normal labors; (5) has had hemorrhage for several days; (6) was in the eighth month of pregnancy; (7) in labor; (8) placenta previa marginalis; (9) R.O.A.; (10) cervix admitted four fingers; (11) hemorrhage considerable but the woman's condition good; (12) third stage normal, slight post partum hemorrhage, manual removal of the placenta; (13) mother recovered; (14) child saved; (15) rupture of the bag of waters for hemorrhage, then expectant treatment.

Case XIV. Mrs. R—n: (1) Age 39; (2) VI para; (3) one abortion; (4) previous labors normal; (5) has been bleeding off and on

for three days; (6) was in the ninth month of pregnancy; (7) labor beginning; (8) half of the os covered by placenta; (9) R.O.A. and prolapse of the cord; (10) cervix admitted four fingers; (11) severe hemorrhage, patient very weak; (12) third stage normal; (13) mother recovered; (14) child recovered; (15) writer held the placenta against the cervix with his hand, thus stopping the hemorrhage, and had the woman bear down vigorously, aided by Kristeller expression; child born in a few minutes, slightly asphyxiated but survived.

Case XV. Mrs. E—e: (1) Age 32; (2) (?) para; (3) not known; (4) not known; (5) patient had been bleeding several hours; (6) was in the seventh month of pregnancy; (7) in labor; (8) placenta covers half of the os; (9) twins—cephalic; (10) cervix dilated; (11) hemorrhage severe, patient weak; (12) third stage normal; (13) mother recovered; (14) both children dead; (15) both children were turned and extracted by the breech; they died in a few moments, not being viable.

Case XVI. Mrs. M—n: (1) Age 35; (2) XI para; (3) no abortions; (4) previous labors all difficult because of contracted pelvis; (5) hemorrhage began with labor; (6) patient at term; (7) in labor; (8) placenta previa marginalis; (9) shoulder presentation; (10) cervix admitted four fingers; (11) condition good at the beginning but patient almost died in the third stage; (12) post partum hemorrhage from cervical tear; (13) mother recovered; (14) child died in thirty-six hours from secondary asphyxia; (15) version was performed and assistant extracted too soon, in order to save the child; deep laceration of cervix and lower uterine segment; appalling post partum hemorrhage, suture of the cervix, tamponade of the whole vaginal tract; patient recovered from the hemorrhage only at the end of four months.

Case XVII. Mrs. S—n: (1) Age 30; (2) primipara; (3) no abortions; (4) no previous labor; (5) one hemorrhage in the sixth week of pregnancy and for the last three weeks continual oozing; (6) patient seven and a half months pregnant; (7) not in labor; (8) placenta previa marginalis; (9) cephalic presentation; (10) cervix closed; (11) patient very weak from hemorrhage, prone in bed and sub-icteric; (12) third stage normal; (13) mother recovered; (14) child saved; (15) induced labor by putting a Barnes' bag in the cervix and a colpeurynter in the vagina; punctured bag of waters, spontaneous delivery.

Case XVIII. Mrs. G—g: (1) Age 32; (2) IX para; (3) no abortions; (4) previous labors normal, but in rapid succession; (5) a few drops of blood two weeks ago; (6) patient in ninth month; (7)

in labor; (8) placenta covered two-thirds of the os; (9) cephalic presentation; (10) cervix completely dilated; (11) hemorrhage marked and still profuse; (12) third stage normal; (13) mother recovered; (14) child died before writer came to case; (15) tamponed by outside physicians; version and extraction by the writer.

Case XIX. Mrs. M—r: (1) Age 35; (2) V para; (3) two abortions; has membranous dysmenorrhea; (4) previous labors, forceps and episiotomy; (5) has had seventeen profuse hemorrhages during the past two and one-half months; blood count, 2,500,000 reds and hemoglobin 40 per cent.; (6) patient five and one-half months pregnant; (7) not in labor; (8) placenta covered the os; (9) cephalic presentation; (10) cervix closed and nearly two inches long; (11) patient has fainting attacks; (12) third stage, placenta adherent, manual removal, post partum hemorrhage, tamponed uterus; (13) mother recovered; (14) child not viable; (15) dilated the cervix with a small colpeurynter then employed traction; internal hemorrhage because placenta rolled up under colpeurynter; collapse; version and extraction—patient almost died on the table.

Case XX. Mrs. N—n: (1) Age 29; (2) II para; (3) no abortions; (4) previous labor a dry birth; child still-born; (5) no hemorrhage during pregnancy; (6) patient at term; (7) in labor; (8) placenta previa marginalis; (9) R.O.A.; (10) cervix admitted three fingers; (11) patient in good condition; (12) third stage normal; (13) mother recovered; (14) child saved—weight five and a quarter pounds; (15) rupture of the bag of waters and then expectancy.

Case XXI. Mrs. S—n: (1) Age 26; (2) IV para; (3) one miscarriage; (4) previous labors normal; (5) no hemorrhage during pregnancy; (6) patient at term; (7) in labor; (8) placenta previa marginalis; (9) R.O.A.; (10) cervix admitted four fingers; (11) patient in good condition; (12) third stage normal; (13) mother recovered; (14) child saved; (15) expectant, because the head was engaged and the hemorrhage moderate.

Case XXII. Mrs. D—n: (1) Age 26; (2) III para; (3) one abortion; (4) previous labors normal; (5) had been bleeding for eighty-eight hours; (6) patient at term; (7) in labor; (8) placenta covered half of the cervix; (9) S.D.A.; (10) cervix dilated; (11) patient in good condition; (12) third stage normal; (13) mother recovered; (14) child saved; (15) ruptured bag of waters, drew down a leg and then left the case to Nature.

Case XXIII. Mrs. N—n: (1) Age 35; (2) II para; (3) no abortions; (4) previous labor normal; (5) had slight hemorrhage for

three days; (6) patient at term; (7) in labor; (8) placenta previa marginalis; (9) L.O.A.; (10) cervix admitted four fingers; (11) hemorrhage profuse till the bag of waters was punctured; patient's condition good; (12) third stage normal; (13) mother recovered; (14) child saved—five and a half pounds; (15) artificial rupture of the bag of waters then expectancy.

Case XXIV. Mrs. M—z: (1) Age 33; (2) IX para; (3) no abortions; (4) previous labors normal but in rapid succession; (5) has had hemorrhage every day for a week; (6) patient at term; (7) in labor; (8) placenta previa marginalis; (9) L.O.A.; (10) cervix dilated; (11) slight hemorrhage; (12) third stage normal but hemorrhage quite profuse; (13) mother recovered; (14) child saved; (15) rapid, spontaneous labor; placenta succenturiata over the os; separation of placenta and internal hemorrhage.

Case XXV. Mrs. C—n: (1) Age 38; (2) XII para; (3) no abortions; (4) previous labors normal, except one prolapsed cord; (5) no hemorrhage in pregnancy; (6) patient in seventh month of pregnancy; (7) in labor; (8) placenta covered a quarter of the os; (9) shoulder presentation with prolapse of the cord, arm, and both feet; (10) cervix admitted three fingers; (11) patient's condition fair; pulse 100; (12) third stage, post partum hemorrhage, manual removal of adherent placenta; (13) mother recovered; (14) child died—two and a half pounds; (15) version and slow extraction; cervix not effaced when operation was begun.

Case XXVI. Mrs. B—n: (1) Age 34; (2) II para; (3) no miscarriages; (4) previous labors normal; (5) no hemorrhage noted; (6) patient in ninth month; (7) in labor; (8) placenta covered half of the os; (9) shoulder presentation, prolapsed cord; (10) cervix admitted three fingers; (11) hemorrhage profuse, patient quite pale and very sick; (12) third stage, slight post partum hemorrhage; (13) mother recovered; (14) child died; (15) version and slow extraction; child died while preparing to remove patient to the hospital.

Case XXVII. Mrs. H—r: (1) Age 38; (2) VI para; (3) no miscarriages; (4) previous labors unknown; (5) had had hemorrhage for several hours; (6) patient in the ninth month of pregnancy; (7) in labor; (8) placenta covered half of os; (9) R.O.A.; (10) cervix dilated; (11) moderate hemorrhage, patient in good condition; (12) third stage slight hemorrhage, placenta marginata with much fibrous change; (13) mother recovered; (14) child saved; (15) expectant treatment.

Case XXVIII. Mrs. T—n: (1) Age 39; (2) IX para; (3) one

abortion; (4) previous labors unknown; (5) no hemorrhage during pregnancy; (6) ninth month of pregnancy; (7) in labor; (8) placenta previa marginalis; (9) R.O.A.; (10) cervix dilated; (11) patient in good condition, hemorrhage moderate; (12) third stage normal; placenta marginata, previal lap fibrous; (13) mother recovered; (14) child saved; (15) previal lap thrombosed, spontaneous cure of placenta previa; expectant treatment.

Case XXIX. Mrs. H—g: (1) Age 43; (2) VIII para; (3) one abortion; (4) previous labors normal; (5) severe hemorrhage for a day; (6) eighth month of pregnancy; (7) not in labor; (8) placenta covers the os; (9) R.O.A.; (10) cervix admits three fingers; (11) hemorrhage very severe—patient almost died on the table; (12) third stage; slight hemorrhage; placenta adherent to the cervix close to the external os; manual removal; (13) mother recovered; (14) child died; (15) perforated placenta, cord prolapsed, pulseless; Braxton-Hicks' version and left case to Nature.

Case XXX. Mrs. N. C—n: (1) Age 37; (2) VII para; (3) one abortion; (4) previous labors normal; (5) three weeks before a faint show; one day before a clot, then profuse hemorrhage; (6) patient in ninth month; (7) not in labor; (8) placenta covered the os; (9) L.O.A.; (10) cervix admitted three fingers; (11) patient in collapse, almost dead on arrival; (12) third stage, post partum hemorrhage, placenta removed at once by Crède method, douche; (13) mother recovered; (14) child died before arrival at case; (15) no fetal heart tones were heard on arrival, central insertion, went through placenta, version, hemorrhage ceased; patient almost dead; operation done while patient was inverted; spontaneous delivery in twelve hours.

From the foregoing exposition of cases it will be seen that no one method of treatment was pursued schematically but that all measures were applied as indicated by the conditions present. Only one mother died of the whole number, her death being due to sepsis contracted at the hands of midwives and physicians. Several of them came very near death from hemorrhage. One (Case XVI.), almost died as the result of too hasty extraction by an assistant and the production of hemorrhage from a lower uterine segment laceration which was stitched with the greatest difficulty.

Of the thirty-one children, fifteen died. Four were premature, and not viable and five died before the arrival of the writer, leaving a mortality of six to be accounted for. Of these six, one died as the result of the placenta becoming prolapsed before the delivery of the child and in the other cases the children died before the writer deemed

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it safe to extract, the cervix not being sufficiently dilated. This was in accordance with the advice of Schroeder.

In subsequent cases the colpeurynter may, by enabling one to dilate the cervix and perform immediate extraction, allow us to save an increasing number of infants and, at the same time, not increase the danger to the mother.

*References.*

1. Fütth—Centralblatt für Gynäkologie. 1896.
2. Gillette—Jour. of the Am. Med. Assoc. 1901. p. 495.
3. Schroeder—Lehr. de Geb. 12th edition. p. 759.  
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