PLACENTA PRAEVIA AND ITS TREATMENT

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It once seemed that with the introduction of version by the Braxton-Hicks method the last word had been said in the treatment of placenta praevia. With this method the Berlin school, as represented by Gusserow and Schroeder achieved such remarkably favorable results as compared with the older method—viz., tamponade of the vagina until complete dilatation of the os, then version and extraction, or in cases of impaction of the foetal head, forceps—that it soon became the dominating one in Germany. Hofmeier in Schroeder's Clinic had but one maternal death out of 37 cases, Behm in Gusserow's Clinic had 35 cases and no death. Later, Zweifel published 62, Wegelins 16 and Hauck 18 cases, all three also without any maternal mortality. Döderlein gives the average maternal mortality at 7.8 per cent, and the infant mortality at 73.7 per cent. This latter figure is unfavorable as compared with the average infant mortality of 54.12 per cent under the older method.

It is unjust to attribute the high infant mortality to the treatment used, as in most cases of placenta praevia we have to deal with immature children whose vitality has been lowered by disturbances of the foetal circulation during labor, as a result of the unavoidable separation of the placenta. Even though these facts were apparent, the high infant mortality gave rise to a number of methods, partly based on the older methods, partly innovations. These methods I shall briefly describe.

1. Abdominal casarean section. With an early diagnosis, good aseptic conditions, and a living child, the result must be a favorable one, and published reports show this to be so.

In the above-mentioned paper by Döderlein, we find a large number of cases: Krönig (35), Sellheim (8), Parker Davis (7), Recausus (4) with no maternal mortality and an infant mortality of 0 (Sellheim) to 42.86 per cent. The average amounted to 8.9 per cent maternal and 33 per cent infant mortality. Casarean section will, however, never be practicable in routine cases and Döderlein has even curtailed its use in hospital and clinical practice and gives as contra-indications: (1) infection from the patient herself; (2) fever, (3) examinations made by physicians and midwives before admission to the hospital, (4) tamponade, (5) extensive hæmorrhages, (6) marginal insertion of placenta (because in this case the patient can be confined in a simple manner), (7) in cases where foetus is


1 An extract of this paper was read in the discussion on placenta praevia in Section VIII of the Seventeenth International Congress of Medicine, London, 1913.
either dead or not viable (amounting to about 50 per cent in hospital cases of placenta praevia). After eliminating these cases, very few remain for caesarean section.

In desperate cases caesarean section may be the only available method. Webster 1 reports a case in a girl 14 years of age, with copious hæmorrhages, infantile vagina and narrow pelvis, in which he operated successfully for the mother.

The modification of the classical caesarean section.

2. The extraperitoneal caesarean section is recommended by Sellheim in aseptic cases with living child and no great hæmorrhage. But even in such cases extraperitoneal caesarean section cannot be said to offer good prospects inasmuch as the incision is made through the maternal portion of placenta with its enormous sinuses. Hofmeier contends that the vascularity at this point is no greater than that of any other part of the uterus. That this view does not agree with the anatomical facts, I have shown at the International Congress at London in 1913. Hofmeier’s view has been obtained through examination of poorly injected specimens.

3. Vaginal caesarean section is Dührssen’s modification of “accouchement forcé,” as practiced by French obstetricians of the seventeenth century, by Guillemeau and Mauricean in cases of hæmorrhage during pregnancy. Both the accouchement forcé and vaginal caesarean section, have the disadvantage that the incision is made through the placental site by reason of which large maternal vessels are opened. As the incision is made in the interest of the child, extraction must be rapid, and in consequence and favored by the spongy nature of the tissues of the lower uterine segment, the incision is enlarged by tearing, so that we have enormous hæmorrhages to contend with after the extraction of the child. The placenta must be rapidly removed so that the incision and the tears can be quickly sutured. The suturing is unusually difficult, the cut and torn edges cannot be held by volsellas as the latter tear out when downward traction is made on them, the extensive bleeding meanwhile making orientation impossible. Furthermore, the hurried removal of the placenta tends to cause atony of the uterus, which encourages severe bleeding, much to the damage of the already greatly depleted patient.

The results, therefore, were bad and former advocates of the method such as Bumm and Krönig, now warn against it.

It is significant that even Dührssen, the one who originated the method, has modified it in cases of placenta praevia and extends the cervical incisions only so far that the metereuryncter can be introduced into the cavity of the uterus. The uterus also must not be pulled down, Dührssen says, but should simply be fixed to prevent separation of placenta.

In remarkable contrast to the bad experiences of other operators are the results given by Döderlein’s Clinic, 34 vaginal caesarean sections with one death. In Döderlein’s compilation at the International Congress, London, we find 88 cases with 9 maternal deaths, 3 of the children were stillborn and 44 not viable. According to Döderlein, the total mortality of the mothers was 11.3 per cent, of children 21.7 per cent.

4. Metereurysis. Originally a rubber bag (Barnes, Keiller) was introduced into the cervical canal below the amniotic cavity, and then filled. Its object was to check bleeding and induce pains. The effect as far as pains are concerned is very uncertain and the introduction of the bag between amniotic cavity and uterine wall certainly causes a further detachment of the placenta, as is evidenced by the bleeding which follows the removal of the bag. Dührssen modified the procedure by introducing the bag into the amniotic cavity after the membranes had been ruptured or the placenta (in case of central insertion) perforated. The intra-amniotic metereurysis will check the bleeding as surely as the bringing down of the foot, but it will cause circular compression of placenta. The most practical of the bags for this purpose is that of Champetier de Ribes, as it is made of non-elastic material and can be filled to “its fullest capacity.” Traction can be made on the tube by means

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2. Seitz Arch. f. Gynäk., Bd. 90.
of a cord, passed over the edge of the bed, and
to which has been attached a small weight,
such as an empty bottle.

It is necessary to perform version immedi-
ately after expulsion of the bag; i.e., if the
presenting part has not already entered the
cervix, which latter is generally not the case
as the bag has a tendency to displace the
töetus. If the largest sized bag (with a diam-
eter of 10 cm. at its base) has been used, the
cervix is now dilated to such an extent that
extraction can be made immediately. Herein
lies the advantage of intra-amniotic metereuryis,
and one can expect, therefore, a lower mort-
ality among the children. In fact, Dührssen
had very good results in his first 6 cases — 5
living children. Later authors were not so
fortunate: Leopold reports 11 cases with
5 living and 6 dead children. Zweifel could
see no advantage in this method as far as
either control of bleeding or the rapid dilata-
tion of the os was concerned. According to
the compilation of Döderlein, given condition-
ally, the mortality of mothers is 6.5 per cent,
of children 45.4 per cent. It is clear that the
prospects of the child are dependent to a large
extent upon the area of compression made
upon the placenta by the bag. If a large part
of the placental circulation is disturbed, the
child is in jeopardy without any chance of
hastening its delivery, and the advantages
gained by introduction of the bag are lost.
Added to this, experience has shown that the
bag should only be allowed to remain a short
time (four to six hours according to Leopold),
as the injuries to the cervical tissue increase
the danger of septic infection.

In spite of this, metereuryis in view of the
lower infant mortality and nearly equal
mother mortality, will continue to have its
advocates, but will not supplant combined
version, as the bringing down of the foot is
not a difficult procedure and does not take a
longer time than the introduction of a bag.

5. Vaginal tamponade. Before the intro-
duction of Braxton-Hicks version, vaginal
tamponade was in Germany the prevailing
method. As soon as bleeding began, the
vagina was packed with tampons of cotton
or gauze, or instead of this, Braun's colpe-
urynter was introduced and filled to its fullest
extent. The object of the tamponade was
to check bleeding and also to induce labor
pains. The tamponade was continued until
the os was dilated to such an extent that
version and extraction were possible. If the
häemorrhage had in the meantime ceased, by
reason of the descent of the head, and with
the mother and child in good condition, things
were left to nature, or extraction made by
forceps. It often took a long time before
pains commenced and it was necessary to
frequently renew the tampons.

As a result, the patient continued to bleed
and was often enough infected, as this method
was used in the pre-antiseptic era. In the
absence of reliable statistics, it is sufficient
to say that the morbidity and mortality of
mothers were very high during this period.

With our present-day method it is possible
to prevent infection to a certain extent, but
not entirely, as reports from various authors
will show. Winckel had a maternal mortality
of 5.2 per cent. In cases of placenta prævia
where the tampon was employed, fever fol-
lowed, according to Freund in 60 per cent,
Winter 80 per cent, Selheim 60 per cent,
Friggesi 23.5 per cent, during the puerperium.

Vaginal tamponade, in the form of kolpe-
uryis, by which the danger of infection is
lessened, has again come in favor and is
recommended by Zweifel, Hammerschlag
and Tauffer in cases of hæmorrhage during preg-
nancy and at the beginning of labor. I con-
sider the tamponade with iodoform gauze or
kolpeurynter as applicable in cases of hæm-
rhage during pregnancy as a temporary
measure and in the first stage of labor (except
in cases of placenta prævia centralis) if there
be a cephalic presentation that is allowed to
proceed normally. As soon as the os is
sufficiently dilated the membranes must be
ruptured.

6. Braxton-Hicks method. Many well-
known obstetricians demand that all cases of
placenta prævia should be transferred to
hospitals and treated preferably by caesarean
section. Desirable as it may be, the demand
that all cases be thus treated is impracticable,
as but a small percentage of physicians and
patients have a hospital at their disposal.
As far as caesarean section is concerned, the
brilliant results of some operators are only apparently so. With the restrictions placed by Döderlein upon this operation (see above), any of the other methods would show equally good results. The practitioner must have at his command a method that can be employed at the home of the patient, and the best, that of Braxton-Hicks, will meet this requirement in most cases. In support of my opinion, I call attention to fifty consecutive cases, which I treated when obstetrician to the policlinic department of the Royal Charité at Berlin. I have never published these cases, as the attention of obstetricians had meanwhile turned to other things. But at the present time, with the Braxton-Hicks method again in the foreground and with the publication of statistics from other obstetrical clinics, my cases demand a certain amount of interest, not only on account of their number and that they were all treated along fixed lines, but from the fact that the cases were all treated (brought to a close) in the homes of the poorer population of Berlin — and represent the work of one operator, myself.

Two deaths from acute anemia, due to long continued previous haemorrhages, occurred during the beginning of my career as assistant. After insisting upon being called to each and every case of bleeding during pregnancy, I was enabled to make an early diagnosis of placenta prævia, and in consequence conditions changed. In the next 44 successive cases there were no deaths from haemorrhage. The results in my private practice have been equally good, but I wish to confine myself to policlinic cases entirely, as I intend to show that the prognosis with the Braxton-Hicks method even in most unfavorable surroundings is as good, as far as the mother is concerned, as caesarean section under the most auspicious conditions.

My cases will show that in spite of primitive conditions asepsis was always carried through, as none of my cases died of sepsis. It is a pity that there is a tendency manifesting itself to place asepsis after technique, and, therefore, it seemed necessary to disclose that success in the first place is dependent upon asepsis. Above all I consider the advice, that in "urgent" cases one should disregard disinfection entirely and go right on with the operation, as condemnable.

My experience has been that even in "urgent" cases there is always time for disinfection; and again, of what benefit is even the most skillful operation to the patient if a fatal sepsis follows? Nowadays we would make use of rubber gloves. My cases date back to a time when gloves were not known, but the results show that the hands can be made germ-free, particularly if contact with infectious material is avoided.

I give a review of my cases in the following table and should like to point out some details.

Among the fifty mothers, four were primiparae and 46 multiparae. Twenty-six times the labor set in at full term and 24 times prematurely. Twice the placenta prævia was of the marginal form, twenty times it was central and twenty-eight times lateral. Forty-six times the head-presentation, nine times the transverse position, four times the foot- and once the breech-presentation prevailed. I have performed the combined (bipolar) version in thirty-eight cases (once twins), four times the internal version. In the five cases of pelvic presentation I pulled down the foot. In three cases of vertex presentation it was sufficient to rupture the membranes, after which the head descended deeply into the pelvis.

After I had brought down the foot, labor was mostly left to nature. Only in 3 cases of internal and 7 cases of bipolar version the foetus was extracted when the external os was fully dilated. I found, before I began the treatment, a rising temperature and a frequent pulse in four cases. In spite of that the puerperium was normal in those cases.

The third stage completed 44 times a normal course, and the placenta was after its spontaneous separation easily expressed through Credé's method. In 8 of these 44 cases a more or less pronounced atony took place before or after the expulsion of the placenta, which was successful treated by gentle massaging. The removal of the placenta by intra-uterine manipulations was necessary in 6 cases on account of profuse hemorrhage. In the 48 surviving cases the puerperium took 40 times a normal course; 8 times occurred in the first
days of the puerperium a rise of temperature up to 40°C, partly complicated with foul-smelling discharge. In those cases the uterine cavity was always doused thoroughly with a one-half per cent solution of lysoform and all patients recovered.

Sixteen of the children were born alive while 35 of them were still-born (two of them being twins). In 10 cases the foetus died during labor; 23 of the 35 still-born were immature.

Concerning the technique, I performed bipolar version as early as possible, when only one or two fingers could be admitted through the os, and brought down a foot. I placed a loop around same and left the case to nature.

As long as the liquor amnii has not escaped and the foetus is movable the operation is by no means difficult.

When the placenta covered the os completely, I burrowed the fingers right through it into the amniotic cavity. The perforation of the villi and chorionic membrane is not difficult, but the perforation of the amnion sometimes proves so, which can be avoided by pressing the presenting part with the abdominal hand against the pelvic brim, while at the same time the vaginal fingers rub gently the membrane upon the presenting part until it tears. I grasp the first obtainable foot, no matter if it is the anterior or posterior one, and bring it down into the vagina chiefly by means of the abdominal hand; namely, in the beginning of the first stage will the abdominal wall and the uterus through anesthesia relax to such extent that the abdominal hand can push the foot, so to speak, through the os, whereupon it can be seized between the thumb and index of the vaginal hand. How far the foot can be pulled down into the vagina depends upon the dilatation of the os. It would, for instance, be a mistake to try to pull the breech immediately into the pelvic brim without considering the size of the os. Otherwise severe laceration of the cervix and haemorrhage would occur, which would be blamed upon the method. By partially dilated os, the leg must not be pulled down further than to above the knee, which will be sufficient to check bleeding. Should any haemorrhage occur, when the os has become more dilated, the foot may be drawn slowly until plugging again is complete; after this the expelling of the foetus is once more left to natural forces. An extraction is only then justified when the os is fully dilated and the child still alive.

No. 1, Journal No. 934, February 26, 1888; Name, D; Age 39; XI para (abortions included); presentation of foetus, II. Vertex, placenta praevia lateral, dext.; labor, last menstruation: middle of August, 1887. Periodical bleeding during last two months. Profuse bleeding for five hours. Very anemic. Temp. 38.2. Pulse 120. Prolapse of weak pulsating cord. Os almost fully dilated. Bleeding stopped after version is completed. Slow extraction of foetus. Placenta bimanually removed; operation, internal version and extraction; child, male, dead, immature (seventh month); puerperium, normal.

No. 2, Journal No. 941, February 28, 1888; Name Sch; Age 35; XIII para (abortions included); presentation of foetus, vertex, placenta praevia totalis; labor, last menstruation: June, 1887. Haemorrhage for five days. Profuse bleeding for five hours. Very anemic, fainting. Os dilated to the size of one-half dollar. Hydramnion. Two fingers through the placenta. Child dead. After version bleeding stopped. Two hours later foetus expelled. Placenta spontaneously in two pieces without haemorrhage; operation, combined version; child, male, dead, mature; puerperium, normal.

No. 3, Journal No. 951, March 12, 1888; Name, J; Age 7; V para (abortions included); presentation of foetus, II. Vertex. Placenta praevia lateral sinistra; labor, came to me with history of haemorrhage for three weeks. Vagina plugged for the last eight days. For five hours strong pains with profuse haemorrhage; extremely anemic. Prolapse of weak pulsating cord. Os size of a dollar. After version no bleeding, two hours later foetus expelled. Placenta born without bleeding; operation, combined version; child, male, dead; puerperium, patient died three hours later from exanguiination.

No. 4, Journal No. 82, May 3, 1888; Name, D; Age 24; VII para (abortions included); presentation of foetus, I. Transverse position. Placenta praevia lateral, sinistra; labor, profuse haemorrhage for three hours. Membranes ruptured five hours. Prolapse of pulseless cord and right arm. Os size of dollar. After version no bleeding; pains strong, foetus expelled shortly after; delivery of head. Placenta without bleeding; operation, combined version; child, female, dead; puerperium, normal.

No. 5, Journal No. 95, May 7, 1888; Name, K; Age 7; II para (abortions included); presentation of foetus, I. Transverse position. Placenta praevia central; labor, last menstruation: beginning of September, 1887. Slight bleeding for few days. On May 7th strong pains set in with profuse haemorrhage. Os admitted two fingers. After version
no bleeding. Three hours later fetus extracted and expressed by fully dilated os. Placenta without bleeding; operation, combined version, extraction; child, male, dead, immature; puerperium, normal.

No. 6. Journal No. 154, May 28, 1888; Name, P; Age 39; VII para; presentation of fetus, II. Foot presentation. Placenta previa lateral, dextr.; labor, last menstruation: middle of October, 1887. Severe bleeding for twelve hours. Temp. 38.5. Pulse 90. Os size of one-half dollar. Left foot pulled down until bleeding stopped. Six hours later os fully dilated. Fetous sounds still to be heard; therefore, extraction. Placenta without bleeding, slight atony of p.p.; operation, pulled down a foot. Extraction; child, male, dead, immature; puerperium, normal.

No. 7. Journal No. 200, June 15, 1888; name, J; Age 33; VII para (abortions included); presentation of fetus, I. Vertex. Placenta praevia lateral. Sinister; labor, last menstruation: November 16, 1887. Periodical bleedings for four weeks. Pains and hæmorrhage for twelve hours. Os size of quarter. Bleeding stopped after version. Fœtus spontaneously expelled soon after; operation, combined version; child, male, living, length 42 cm. Circumference of head, 32 cm. (died three hours later); puerperium, normal.

No. 8. Journal No. 273, July 14, 1888; Name, M; Age, 18; I para (abortions included); presentation of fetus, I. Vertex, placenta praevia, later, sinistra; labor, last menstruation: beginning of December, 1887. Profuse bleeding for two days, very aëmæic. Strong hæmorrhage and collapse during version. Fœtus expelled two hours later. Placenta bimanually removed. Packing of uterus and vagina. Bleeding checked; operation, combined version; child, male, dead, immature; puerperium, patient died two hours later from exsanguination.

No. 9. Journal No. 288, July 19, 1888; Name B; Age 30; VII para (abortions included); presentation of fetus, I. Vertex. Placenta praevia, centralis, labor, last menstruation: beginning of November, 1887. The morning of July 19 suddenly profuse bleeding. Os admits one finger. Hydramnion: bleeding stopped after version. Fœtus expelled four hours later. Operation, combined version; child, female, dead, mature; puerperium, normal.

No. 10. Journal No. 326, July 28, 1888; Name W; Age 25; III para (abortions included); presentation of fetus, II. Foot presentation, placenta praevia margin, sinister; labor came to me with temp. 38. Pulse 104. Profuse bleeding when os fully dilated. After labor slight atony; operation, extraction; child, female, living, mature; puerperium, normal.

No. 11. Journal No. 320, July 28, 1888; Name L; Age 30; II para (abortions included); presentation of fetus, II. Vertex, placenta praevia later, sinister; labor, last menstruation: end of November, 1887. Profuse periodical bleeding for six hours; pains slight Os admits two fingers. Bleeding stopped after version. Fœtus expelled twelve hours later; operation, combined version; child, male, dead, mature; puerperium, normal.

No. 12. Journal No. 326, July 30, 1888; Name B; Age 30; XI para (abortions included); presentation of fetus, II. Vertex, placenta praevia, central; labor, last menstruation: December 4, 1887. Profuse hæmorrhage. Os almost fully dilated, covered with placenta. Went through placenta, performed version and extraction. Placenta bimanually removed; operation, internal version, extraction; child, male, dead, immature; puerperium, temp., first day, 36.5; second day, 38; third day, 40.1. Pulse 140. (Uterine cavity washed out.) Evening temp. 39. Fourth day, 38; fifth day, 36.9. Temp. remained normal. Recovery.

No. 13. Journal No. 419, September 7, 1888; Name, K; Age 35; IV para; presentation of fetus, II. Vertex. Placenta praevia centralis; labor, last menstruation: middle December 1887, severe bleeding for four hours. Os size of dollar. No bleeding after version. Fœtus expelled seven hours later. Arms and head artificially delivered. Placenta without bleeding; operation, combined version; child, female, living, mature; puerperium, normal.

No. 14. Journal No. 466, September 25, 1888; Name, K; Age 31; VII para (abortions included); presentation of fetus, II. Vertex. Placenta praevia lateral, sinister; labor, last menstruation: beginning of January. Two hours ago very profuse bleeding. So that she fainted. Very aëmæic. Os size of a dollar. Bleeding stopped after version; fœtus expelled few hours later; operation, combined version; child, female, dead, immature; puerperium, normal.

No. 15. Journal No. 378, October 14, 1888; Name, G; Age 20; I para (abortions included); presentation of fetus, transverse position. Placenta praevia centralis; labor, last menstruation: beginning of March. Profuse bleeding for some hours. After version no bleeding. Fœtus expelled three hours later. Placenta spontaneous one-half hour later without bleeding; operation, combined version; child, female, living, immature (died the following day); puerperium, normal.

No. 16. Journal No. 385, October 29, 1888; Name, Sch; Age 27; III para (abortions included); presentation of I. Vertex. Placenta praevia later, sinister; labor, last menstruation: January. For three hours severe bleeding. Aëmæic. Os size of half dollar. After version no bleeding; fœtus expelled one and one-half hours later. Placenta spontaneous without bleeding; operation, combined version; child, female, dead, mature; puerperium, normal.

No. 17. Journal No. 400; October 29, 1889; Name, Sch; Age 38; X para (abortions included); presentation of fetus, vertex. Placenta praevia later. Sinister; labor, last menstruation: end of February. Severe bleeding. Twins. After extraction of children atomic bleeding. Placenta bimanually removed. Uterus hereafter firmly contracted and no bleeding; operation, combined version and extraction; children, females. Both dead; both length 30 cm.; puerperium, normal.
No. 18; Journal No. 415, November 5, 1889; Name W; Age 37; XI para (abortions included); presentation of fœtus, I. Vertex. Placenta prævia, marg. sinister.; labor, last menstruation: December, 1888. Profuse bleeding for two hours. Liquor amnii escaped. Os lets the hand through. Child dead. Bleeding stopped after version. Placenta spontaneous expulsion one-half hour later without bleeding. Piece of membranes removed; operation, internal version and slow extraction; child, female, dead; puerperium, normal.

No. 19; Journal No. 433, November 15, 1889; Name Sp; Age 29; III para (abortions included); presentation of fœtus, II. Incomplete foot presentation. Placenta prævia, lateralis; labor, last menstruation: end of March. Moderate bleeding; prolapse of posterior left leg. Os twice the size of a dollar. Left foot pulled down, which rotated in front under strong pains. No bleeding after breech entered pelvis. Third stage without bleeding; operation, pulled down a foot; child, female, dead, length 43 cm.; puerperium, normal.

No. 20; Journal No. 453, November 25, 1889; Name H; Age 41; XI para (abortions included); presentation of fœtus, II. Vertex. Placenta prævia centralis; labor, last menstruation: April 21. Bleeding for last 20-24 hours. Hæmorrhage with every pain. Fœtus dead. Os size of dollar, covered all over with placenta. Went through the placenta. Fœtus slowly extracted. Placenta expelled shortly after without bleeding; operation, combined version, extraction; child, male, dead, immature; puerperium, normal.

No. 21; Journal No. 460, November 29, 1889; Name H; Age 25; IV para (abortions included); presentation of fœtus, I. Transverse presentation. Placenta prævia lateral dextr.; labor, last menstruation: beginning of March, bleeding for five hours. Liquor amnii escaped. Os size of quarter. Bleeding stopped after version. Fœtus expelled two hours later. Placenta delivered without bleeding; operation, combined version; child, female, living; puerperium, normal.

No. 22; Journal No. 465, November 30, 1889; Name L; Age 22; II para (abortions included); presentation of fœtus, II. Vertex. Placenta prævia lateral, sinister.; labor, last menstruation: March 23. Bleeding for fourteen days; very profuse for two hours. Very anemic. Os admitted two fingers. After version no bleeding. Fœtus expelled four hours later. Collapse after child is born. Placenta expressed; operation, combined version; child, female, living, length 47 cm.; puerperium, normal.

No. 23; Journal No. 521, December 27, 1889; Name D; Age 25; I para (abortions included); presentation of fœtus, I. Vertex. Placenta prævia lateral, sinister.; labor, last menstruation: May 1st. Bleeding with pains for eight hours. Os size of quarter. No bleeding after version. Fœtus expelled three hours later. Placenta delivered without bleeding; operation, combined version; child, male, dead, length 46 cm.; puerperium, normal.

No. 24; Journal No. 531, January 1, 1890; Name H; Age 22; II para (abortions included); presentation of fœtus, II. Vertex. Placenta prævia lateralis, sinister.; labor, last menstruation: May 4th. Severe hæmorrhage for two hours. Temp. 36.5. Pulse 100. Fœtal sound 180. Os size of dollar. Bleeding stopped after version. Fœtus expelled four hours later. Placenta without bleeding; operation, combined version; child, female, dead, immature; puerperium, normal.

No. 25; Journal No. 575, January 20, 1890; Name Sch; Age 36; XIII para (abortions included); presentation of fœtus, II. Transverse position. Placenta prævia total; labor, last menstruation: end of June. Bleeding for several hours. Anæmic. Os size of dollar. After version no bleeding. Fœtus expelled two and one-half hours later. Placenta without bleeding; operation, combined version; child, female, dead, immature; puerperium, normal.

No. 26; Journal No. 617, February 6, 1890; Name F; Age 28; VI para (abortions included); presentation of fœtus, II. Transverse position. Placenta prævia lateralis, sinister.; labor, last menstruation: not known. Profuse bleeding for four hours. Os admitted one finger. After version no bleeding. Fœtus expelled three hours later. Placenta without bleeding; operation, combined version; child, female, dead, immature (eighth month); puerperium, normal.

No. 27; Journal No. 637, February 12, 1890; Name B; Age 38; IX para (abortions included); presentation of fœtus, I. Vertex. Placenta prævia laterali, sinister.; labor, last menstruation: December 6, 1889. Profuse bleeding for six hours. Os size of dollar. Strong pains. Head engaged in pelvic brim. Bleeding stopped after membranes ruptured. Fœtus expelled three hours later. Placenta without bleeding. Patient collapsed soon after but rallied; operation, ruptured membranes; child, female, living; puerperium, normal.

No. 28; Journal No. 721, March 14, 1890; Name M; Age 39; XI para (abortions included); presentation of fœtus, II. Vertex. Placenta prævia centralis; labor, last menstruation: August 15, 1889. Severe bleeding for some hours. Os size of quarter. After version no bleeding. Fœtus expelled two hours later. Placenta without bleeding; operation, combined version; child, male, dead, length 42 cm.; puerperium, normal.

No. 29; Journal No. 2, April 1, 1890; Name R; Age 43; XI para (abortions included); presentation of fœtus, II. Vertex. Placenta prævia centralis; last menstruation: July 23, 1889. Severe bleeding for hours. Os size of quarter. No fetal sounds heard. Bleeding stopped after version. Fœtus expelled one and one-half hours later. Placenta without bleeding; operation, combined version; child, female, dead, immature; puerperium, normal.

No. 30; Journal No. 21, April 10, 1890; Name Sch; Age 37; VIII para (abortions included); presentation of fœtus, I. Vertex. Placenta prævia lateralis; labor, last menstruation: beginning of August, 1889.
Severe bleeding for two hours. Os admitted two fingers. Bleeding stopped after version. Fetal sounds good. Fetus expelled two hours later. Placenta with slight bleeding; operation, combined version; child, male, living, mature; puerperium, normal.

No. 31; Journal No. 59, April 23, 1890; Name Sch; Age 25; VI para (abortions included); presentation of foetus, I. Vertex. Placenta praevia centralis; labor, last menstruation: August 12, 80. Slight bleeding during last three days. Severe bleeding for two hours. Anæmic. Fetus dead. Os size of dollar. No bleeding after version. Strong pains. Fetus expelled one-half hour later. Placenta with slight bleeding; operation, combined version; child, female, dead, mature; puerperium, from the third to the sixth day foul smelling discharge and rise of temperature. Intra-uterine douching. Recovery.

No. 32; Journal No. 73, April 27, 1890; Name K; Age 32; II para (abortions included); presentation of foetus, vertex. Placenta praevia lateralis, sinister; labor, last menstruation: end of September, 1889. Severe bleeding for last two hours. Liquor amnii escaped ten hours ago. Os admitted two fingers. Bleeding stopped after version. Fetus expelled under strong pains three hours later. In the third stage severe bleeding, due to atony. Placenta expelled; operation, combined version; child, female, dead, immature; puerperium, normal.

No. 33; Journal No. 72, April 29, 1890; Name T; Age 34; VIII para (abortions included); presentation of foetus, I. Vertex. Placenta praevia lateralis, dex-tr.; labor, last menstruation: July 24, 1889. Slight periodical bleeding during last four weeks. Pains began last night with severe hæmorrhage. Os admitted two fingers. No bleeding after version. Strong pains. Fetus expelled four hours later, asphyctic but rallied. Profuse hæmorrhage in third stage. Placenta bimanually removed; operation, combined version; child, male, living, mature; puerperium, normal.

No. 34; Journal No. 95, May 6, 1890; Name B; Age 31; III para (abortions included); presentation of foetus, vertex. Placenta praevia centralis; labor, last menstruation: end of August, 89. Periodical bleeding during last four weeks. Continual slight bleeding for a week. Os size of dollar. No bleeding after version. Fetus expelled under strong pains; one-half hour later; head delivered. Placenta without bleeding; operation, combined version; child, female, living, length 45 cm.; circumference of head 32 cm.; puerperium, normal.

No. 35; Journal No. 245, July 4, 1890; Name B; Age 35; IX para (abortions included); presentation of foetus, II. Vertex. Placenta praevia centralis; labor, last menstruation: October. 1880. Bleeding in intervals during last week. Slight pains. Profuse bleeding after internal examination. Os size of half dollar. No bleeding after version. Fetus expelled three hours later. Slight atony in the third stage; operation, combined version; child, female, living; puerperium, normal.

No. 36; Journal No. 247, July 6, 1890; Name Tr.; Age 30; IV para (abortions included); presentation of foetus, I. Vertex. Placenta praevia centralis; labor, last menstruation: September 31, 1889. Bleeding for first time three weeks ago. Periodically severe bleeding for some hours and during examination. Os size of half dollar. Abundant liquor amnii. Bleeding stopped after version. During expulsion of foetus repeated hæmorrhage. Extraction of foetus by almost fully dilated os. Atony during third stage; operation, combined version; child, male, dead, length 50 cm.; puerperium, patient very anæmic. On the fourth day rise of temperature and foul-smelling discharge. Transportation to clinic. Recovery.

No. 37; Journal No. 268, July 16, 1890; Name L; Age 30; IV para (abortions included); presentation of foetus, II. Vertex. Placenta praevia lateral. dextr.; labor, last menstruation: middle of December. Bleeding at intervals for some days, especially during pains, that day I was called. Os size of dollar. No bleeding after version. Placenta expelled immediately after foetus; operation, combined version; child, female, dead, immature; puerperium, normal.

No. 38; Journal No. 297, July 28, 1890; Name K; Age 41; IV para (abortions included); presentation of foetus, II. Vertex. Placenta praevia centralis; labor, last menstruation: not known. Hæmorrhage for twelve hours. Os size of dollar. No bleeding after version. Fetus expelled an hour later. Placenta without bleeding one-half hour after expulsion of foetus; operation, combined version; child, male, dead, mature, length 53 cm.; puerperium, normal.

No. 39; Journal No. 305, September 9, 1890; Name K; Age 7; XI para; presentation of foetus, II. Vertex. Placenta praevia lateralis, sinister.; labor, last menstruation: beginning of January. Bleeding since yesterday; bleeding for some hours so severe that midwife ruptured the membranes. Very anæmic. Os size of dollar. Bleeding stopped after version. Fetus expelled one hour later. Placenta bimanually removed. Atony; operation, combined version; child, male, living, length 54 cm.; circumference of head 36 cm.; puerperium, normal.

No. 40; Journal No. 414, September 16, 1890; Name M; Age 31; VI para (abortions included); presentation of foetus, II. Vertex. Placenta praevia centralis; labor, last menstruation: middle of December, 1889. During early months of pregnancy several times bleeding and threatening abortion. Bleeding at intervals for six hours; at my arrival profuse hæmorrhage, os size of dollar. No bleeding after version. No fetal sounds to be heard. Fetus expelled two hours later. Placenta three-quarters of an hour after expulsion of foetus with slight hæmorrhage; operation, combined version; child, female, dead, length 50 cm.; circ. of head 54 cm.; puerperium, slight atony during first days, recovery.

No. 41; Journal No. 537, November 18, 1891; Name G; Age 30; I para (abortions included); presentation of foetus, I. Foot presentation. Placenta praevia lateral. sinister.; labor, last menstruation:
beginning of May, 1891. Liquor amnioti escaped three days ago, since then slight bleeding at intervals, strong bleeding at arrival. Temperature rising for last twelve hours, now temperature 38.4 Cels. Pulse 140. Os size of a quarter. Fœtus expelled four hours later. Placenta without bleeding; operation, pulled down a foot; child, male, dead, immature; puerperium, on the third day, temperature 38.7. Pulse 120; fourth day, temperature 37.3. Pulse 100. Recovery.

No. 47; Journal No. 755, February 19, 1892; Name Sch; Age 35; IV para (abotions included); presentation of fœtus, I. Vertex. Placenta prævia later. Dext.; labor, last menstruation: June, 1891. Severe bleeding at intervals during last hours. Anæmic. Os size of one-half dollar. No bleeding after version. Fœtus expelled six hours later. Placenta without bleeding; operation, combined version; child, female, immature (seventh month); puerperium, normal.

No. 48; Journal No. 758, February 20, 1892; Name Pf; Age 23; II para (abortion included); presentation of fœtus, I. Vertex. Placenta prævia lateral; labor, last menstruation: beginning of June, 1891. Periodical hemorrhages during last five hours, at first severe. Strong pains. Os almost fully dilated. Head in pelvic inlet. After rupture of membranes head descended and bleeding stopped. Fœtus expelled shortly after. Placenta without bleeding; operation, membranes; child, male, living, length 45 cm.; circ. of head 31 cm.; puerperium, normal.

No. 49; Journal No. 769 February 24, 1892; Name K; Age 20; V para (abotions included); presentation of fœtus, I. Transverse position. Placenta prævia centralis; labor, last menstruation: July, 1891. Bleeding February 18th and 23rd. Slight pains, slight hemorrhage. Os size of one-half dollar, and covered with placenta. No bleeding after version, no fetal sounds. Fœtus expelled one-half hour later. After expression of placenta slight atony; operation, combined version; child, male, dead, length 45 cm.; puerperium, normal.

No. 50; Journal No. 799, February 29, 1892; Name M; Age 34; VIII para (abotions included); presentation of fœtus, I. Vertex. Placenta prævia lateral, sinister.; labor, last menstruation: May, 1891. Two days ago hemorrhage with slight pains, for eight hours hemorrhage at intervals. Temperature 37 C. Pulse 100. Slight anæmia. Strong pains for one-half hour. Os size of dollar. Head in pelvic inlet. No bleeding after rupture of membranes and head descended quickly. Fœtus expelled one hour later. Placenta without bleeding; operation, ruptured membranes; child, female, living; puerperium, on the third and seventh days temperature 40.3 C. Foul-smelling lochia. Intra-uterine douching. Recovery.