

THE
TREATMENT
of
PLACENTA PRAEVIA.

A thesis submitted for the
degree of
DOCTOR OF MEDICINE
by
ROBERT SCOTT STEVENSON,
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C O N T E N T S

1. The treatment of Placenta Praevia
 - (I) Definition
 - (II) History
 - (III) Frequency.
 - (IV) Etiology
 - (V) Symptoms
 - (VI) Diagnosis
 - (VII) Treatment
 - (VIII) Conclusions.

2. Notes on a Series of 33 Cases of placenta praevia personally treated at St. Mary's Hospital, Manchester, 1913-14.

3. Analysis and Short Notes on a series of 225 cases of placenta praevia treated at St. Mary's Hospital, Manchester, during 1910-1914.

4. Notes on Causes of death in the 18 cases of material mortality.

THE TREATMENT OF PLACENTA PRAEVIA.

DEFINITION

Placenta praevia may be defined as the implantation of the placenta over, or close to, the internal os of the uterus, its position being such that it is attached to that portion of the wall of the uterus below the retraction ring which is passive in labour, and is termed the lower uterine segment. On account of its own comparative inelasticity, a placenta in this position must necessarily become detached, or partially detached, during the gradual expansion and canalisation of the lower uterine segment in the later months of pregnancy, and bleeding must take place from the ruptured uteroplacental blood vessels; separation actually during labour takes place in the same way, but more acutely. This is the most common cause of ante-partum haemorrhage, and such bleeding is known as "unavoidable haemorrhage."

A placenta praevia is termed central, marginal, or lateral, according as it covers the internal os completely, reaches its edge, or merely extends into the lower uterine segment without actually reaching the os. But these relationships will alter very materially as the size of the os alters in labour, and what may be a central placenta praevia at the

beginning of labour may become marginal as the os dilates.

HISTORY

Our knowledge of placenta praevia dates from the latter half of the seventeenth century, Guillemeau (1643) and Primerose (1655) having given some statements of cases which in all likelihood included this condition, and Guillemeau in 1596 gave Ambroise Paré (1510-1590) and Hubert credit for successfully practising podalic version in cases of ante-partum flooding (although neither advocated interference before labour commenced). (Essen-Moller: "Transactions, XVIIth. International Congress of Medicine, London 1913; Section VIII, Part I", 25-29. Dudley: "New York Med. Jour." Nov. 3rd, 1900. P. 1233) .

Portal first accurately described the condition clinically and anatomically (Portal: "La pratique des accouchements, etc." Paris, 1685), while Schacher (Schacher: "De placental~~e~~ uterinae morbis." Lipsiae, 1709), Smellie (Smellie: "Treatise on the Theory and Practice of Midwifery", 1752), and William Hunter (Hunter: "Anatomical Description of the Human Gravid Uterus." Birmingham, 1774) all knew the condition and its dangers and described, in one or more cases, its characteristic features.

William Giffard, in 1734, was the first (Dudley; *ibid*) to bore a hole with his finger through the placenta and successfully extract the child. Most important, however, was the work of Edward Rigby (Rigby: "An Essay on the Uterine Haemorrhage which precedes the Delivery of the Full-Grown Foetus." London, 1776), who introduced the terms "unavoidable" and "accidental" haemorrhage, and first distinguished clearly between these two forms of bleeding. In the treatment of the condition he used to dilate the cervix slowly with the fingers and finally introduced the hand into the uterus; he was also acquainted with the danger of ~~guide~~ extraction and warns against it.

Comparatively little advance was thereafter made in our knowledge of placenta praevia until Barnes put forward his views on its mode of production and the methods of controlling the haemorrhage (Barnes: "Physiology and Treatment of Placenta Praevia." London, 1858). The introduction of the method of treatment by bimanual version by Braxton Hicks (Braxton Hicks: "Lancet", July 1860. "Obstetrical Transactions," Vol. V, 222), was one of the greatest improvements made in operative obstetrics; although according to Müller (Müller: "Placenta Praevia," 57-58, Stuttgart, 1877), Hamilton in 1822 and Lee in 1848 were already acquainted with bimanual turning even before Braxton

Hicks. Since then many exhaustive enquiries have been made by investigations into the mode of origin of the condition and the best treatment.

FREQUENCY.

Placenta Praevia is a comparatively rare condition, but the statements as to its frequency vary very considerably. Müller (Müller: *ibid*) based his statistics on 876,432 labours, and calculated that it occurs once in 1078 cases; McPherson (McPherson: "Bulletin of Lying-in Hospital, New York", Dec. 1907), in 52,000 labours, found it occur once in 208 cases; Mozchotte, in Pinard's clinique, (Mozchotte: "Annales De Gyn.", 1910), in 38,015 cases once in 207.7 cases; Maison (Maison: *Die Therapie der Placenta praevia: München, 1908*), in 24,951 cases, once in 162 cases. Fothergill (Fothergill: "Manual of Midwifery", 1907) gives the frequency of the condition as one in 524 to 1565 cases, i.e., probably about 1 in 1,000 cases; Whitridge Williams (Williams: "Obstetrics," 1909) suggests that it is met with about once in 1000 cases in private, and about once in 250 cases in hospital practice. Jellett, introducing a discussion at the Royal Society of Medicine, in 1912, gave the Rotunda Hospital figures for the past 20 years as 32,546 labours, and placenta praevia once in 235.8 cases.

In an investigation of the cases of labour at St. Mary's Hospital, Manchester, over the five years 1910-1914, the present writer found that in 19,293 labours there were 225 cases of placenta praevia, or once in 85.74 cases. But in regard to this hospital the normal cases came only from a restricted area in its immediate neighbourhood, while the abnormal cases, including placenta praevia, came from a district with a radius of twenty or thirty miles and a population of several millions, so that the real ratio of placenta praevia to normal labour cases should be much lower.

ÉTIOLOGY.

Placenta praevia occurs more frequently in multiparae and in the later years of the period of child-bearing, while the fact of labours rapidly following one another also appears to favour its occurrence. Doranth (Doranth: "Statistisches über Placenta praevia," Chrobak's Berichte aus der 2ten. geb. gyn. Klinik in Wien, 1897, 77-119), basing his figures upon 30,796 cases of labour, points out that according as patients had given birth to 1, 2, 3, 4, 5 or 6 children placenta praevia occurred in 0.17, 0.48, 0.65, 1.37, 1.28 and 3.39 per cent of the cases respectively, while where the number of children born was between 7 and 10, the percentage was 5.51.

In the St. Mary's Hospital, Manchester, figures for 1910-1914, of 225 cases of placenta praevia, 29 occurred in primiparae, 13 in 2-parae, 24 in 3-parae, 24 in 4-parae, 24 in 5-parae, and 111 in patients who had given birth to 6 and more children, of whom no fewer than 37 had had 10 or more children. Strassmann states that the average age of the patients in whom placenta praevia occurred (Strassmann: "Placenta praevia," *Archiv. f. Gyn.*, 1902, xxvii) was 32.9 years. Of the 225 cases at St. Mary's Hospital, Manchester 24 were under 25 years; 33 aged from 25 to 30; 65 aged from 30 to 35; and 98 aged from 35 to 40 and over, 22 of them being over 41 years.

Standard works on midwifery in general mention endometritis as a predisposing cause of placenta praevia, and it is possible that degeneration or inflammation of the endometrium does have a favourable influence upon its occurrence, but there is little actual evidence of the fact, and the present writer could find no support for the theory in the medical histories of the 33 cases he personally investigated and treated, notes of which are appended.

The former generally accepted theory of the mode of formation of placenta praevia was that when an ovum entered the uterus from the Fallopian tube, instead of being arrested at the fundus it dropped downwards, owing to the cavity of the uterus having

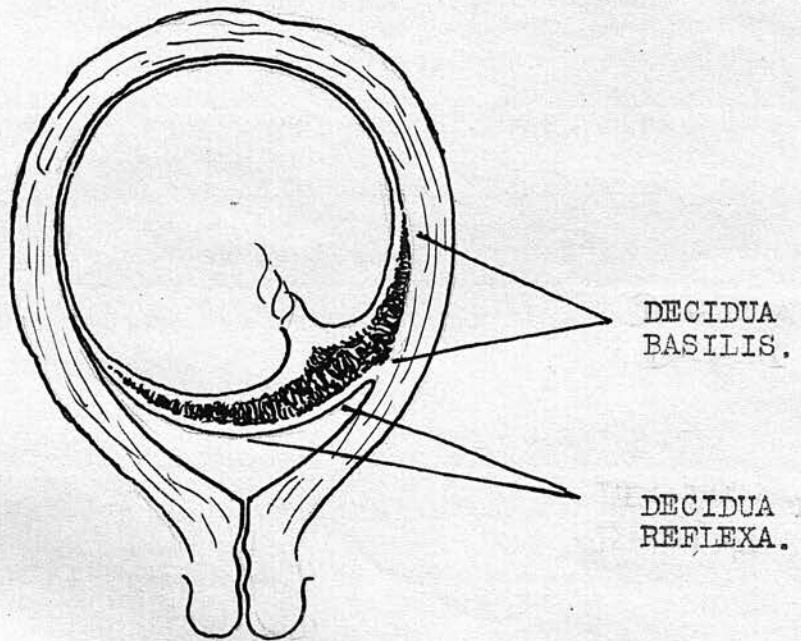


DIAGRAM ILLUSTRATING HOFMEIER'S THEORY
OF THE FORMATION OF PLACENTA PRAEVIA
(after Whitridge Williams)

become enlarged through a previous endometritis, and became attached to the lower portion of the uterus. However, as the cavity of the unimpregnated uterus is from 1/5th to 1/3rd of a cubic inch, and the diameter of the ovum 1/120 of an inch (Herman: "Difficult Labour", 1912) the mere enlargement of a cavity already so comparatively large should make no difference, and the theory has never been supported by anatomical specimens. The theory first advanced by Hofmeier (Hofmeier: "Ueber Placenta praevia". Verh.d-deutschen Gesell. f. Gyn. 1888, 159-163), which is supported by anatomical specimens (Hofmeier: ibid, 1897, 204-225. Kaltenbach: "Placenta praevia." Zeitschr. f. Geb. u-Gyn., 1890, xviii 1-7. Johnstone: "Textbook of Midwifery", 1913. Williams: "Obstetrics", 1909, p.812) is that the condition is due to a part of the placenta developing from the chorionic villi attached to the decidua reflexa at the lower pole of the ovum, as well as from the decidua basalis. As pregnancy advances the decidua reflexa becomes fused with the decidua vera, bridges over the internal os, and so forms a central placenta praevia. In certain instances, by a process of cleavage in the decidua vera, an extension of the placental area might result, so that the margin of the placenta might extend beyond the decidua basalis, and, by the extension of such a process downwards, gradually cover the internal os. (Peters: "Ueber

die Einbettung des menschlichen Eies". Wien 1899.
Williams: "Decidual formation throughout the uterine muscularis." Trans. Southern Surg. and Gyn. Ass. 1904 xvii, 119-132) .

Defective vascularisation of the decidua, due to inflammatory or atrophic changes, the latter being caused by repeated pregnancies closely after one another, would be apt to lead to a placenta spreading itself over a larger area and thus approaching the internal os. (Strassmann: "Ueber placenta praevia" Zeitscher f. Geb. u. Gyn. 1901 xliv) .

SYMPTOMS.

The first symptom of placenta praevia is haemorrhage, which does not usually appear until after the sixth month. The St. Mary's Hospital, Manchester, series of 225 cases were, so far as could be ascertained, sent into hospital in every case because of haemorrhage; in 12 cases the haemorrhage commenced before the sixth month of pregnancy, in 213 cases after the sixth month; in 1 case it occurred at 4 months, in 2 cases at $4\frac{1}{2}$ months, in 6 cases at 5 months, in 3 cases at $5\frac{1}{2}$ months, in 28 cases from the 6th to the 7th month, in 60 cases from the 7th to the 8th month, in 72 cases from the 8th to the 9th month, and in 53 cases it occurred at or about full term.

The haemorrhage usually comes on without warning or pain, and sometimes while the patient is asleep without necessarily awakening her; if even slight haemorrhage takes place, due to placenta praevia, it will inevitably recur and in a more severe form. The haemorrhage takes place at the placental site, through the rupture of the attachment of the placenta by the progressive formation of the lower uterine segment and the dilatation of the internal os, from the intervillous spaces and the blood vessels of the decidua.

DIAGNOSIS.

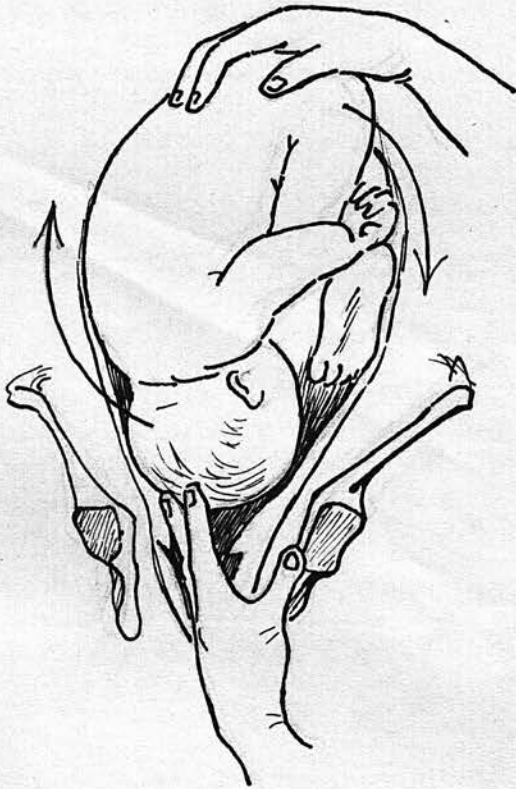
In cases of haemorrhage from the uterus in patients during the second half of pregnancy, the possibility of the condition being placenta praevia should always be suspected. On examination per vaginam the cervix is felt to be softer and more boggy than usual; the fornices may be felt to be more boggy also, and there may be increased pulsation and a heavy softness of the lower pole of the pregnant uterus, but these latter signs need not be relied upon (Tweedy and Wrench: ibid), although some authorities lay stress upon them (Hellier: "Notes on treatment of placenta praevia", Practitioner, 1917, xcvi). The cervix is usually patulous enough for a finger to be introduced through the internal os, when the very characteristic sponginess

of placental tissue is felt, if the placenta praevia is central; or the finger is introduced a little farther and swept round that part of the lower uterine segment which is within reach, to determine finally whether or not a placenta praevia is present.

If necessary the cervix should be dilated under an anaesthetic to enable the examination to be made (Whitridge Williams: "Obstetrics", 1909), owing to the importance of making an exact diagnosis in the condition. If the placenta is not felt the case is treated as revealed accidental haemorrhage.

TREATMENT

In the treatment of placenta praevia there is no single method that is uniformly applicable, and the best results are to be gained by the adoption of the method best suited to the particular case after careful consideration of the symptoms, the position of the placenta praevia, the condition of the mother and of the child, and the period of the pregnancy. The question of whether hospital treatment is available is very important as influencing possible treatment, as methods practicable in hospital and in the operating theatre are impracticable to the general practitioner called in suddenly to a woman in the later months of pregnancy and finding her in a serious condition after profuse



BIPOLAR VERSION

(after Bumm:

from Williams: "Obstetrics")

membranes should be ruptured at its margin; but if this is not feasible time should not be lost, and the placenta should be boldly perforated with the fingers in order to get hold of a leg of the child. If the head is presenting, it is pushed with the two fingers in the direction of the child's back, and at the same time the other hand of the operator is placed over the fundus and presses the child's breech downwards; the whole procedure is carried out rather with a series of pushes or pulls than with continuous pressure. The child now lies transversely, the face, limbs, and abdomen all directed downwards, and the operator should feel for one leg or other of the child and pull it down through the cervix, if necessary by the aid of bullet forceps, which will not injure the foot; when the foot is in the vagina a piece of sterile gauze is tied round the ankle, and the end of the gauze hangs well out of the vagina.

Until this moment the treatment has been energetic and active, but, the haemorrhage having now ceased, the next stage of treatment is slow and expectant; but continuous traction must be maintained after the leg has been pulled down, for fear of accidental haemorrhage. (Baldwin: "Journal of Amer. Med. Assoc." 1911, Vol. lvii, 393; Donald: Manchester Medical Society: Discussion, 1912). If the pulling down of the leg be followed by quick extraction there

is very grave danger of rupture of the cervix and fatal post-partum haemorrhage. If the child is in danger during the period of waiting it must take the risk, it may even have to die, rather than endanger the life of the mother by rapid extraction. Laceration of the cervix is always dangerous, but it is particularly dangerous in placenta praevia on account of the high vascularity of the tissue of the cervix and its liability to rupture. Atony of the uterus is also apt to follow rapid extraction, resulting in post-partum haemorrhage, which is particularly dangerous in placenta praevia, where there is not generally much more blood to lose. But an expectant treatment after turning should obviate these dangers. Pains usually set in soon, the cervix dilates fairly rapidly, and the child is born about two or three hours after turning. Sir James Y. Simpson (Simpson: "Selected Works", p.269) points out that the two great dangers in placenta praevia are too long a continuance of the haemorrhage, if the operation be not performed sufficiently early, and the probability of laceration of the cervix if the operator proceeds to deliver too soon. These dangers are both avoided by energetic treatment until turning is completed and by expectant treatment until the child is born.

In the series of 33 cases of the present writer, bipolar version was employed on 13 occasions, and

internal version on 7 occasions; in the whole series there was one maternal death, and in that case there was a syphilitic history, with six previous abortions and the uterus appeared to have been ventro-fixed; death was due to post-partum haemorrhage. But on the other hand, in the 20 cases in which bipolar and internal version were employed, and in the three more cases in which, being breech cases, a leg was merely pulled down, only three living children (one of them the second of a pair of twins) were born altogether; one other child being born alive in the 10 other cases in which other methods were employed (Taylor's bag, forceps, external version, and natural forces).

In the whole series of 225 cases at St. Mary's Hospital, only 60 children were born alive, giving a mortality percentage of 76; while the maternal mortality was 18 cases, or 8%, but several of the cases were moribund on admission. Herman (Herman: "Difficult Labour", 1912) places the foetal mortality as high as 90%. Doderlein (Doderlein: "Treatment of Placenta Praevia". Transactions, XVIIth International Congress of Medicine, Section VIII, Part I: London, 1913) collated the statistics of 28 different authorities who employed bipolar version in placenta praevia in 1434 cases, with a foetal mortality of 73.7% and a maternal mortality of 7.8%. Müller (Müller: "Placenta praevia," 1877) recorded the mortality under expectant treatment as being 34 to 40% for the mother, and 66%

for the child. The introduction of bipolar version has enormously diminished the maternal death-rate, but has not at all improved the foetal mortality.

Because of this high mortality of the children the propriety and advantages of other methods must receive consideration; but any treatment depends on the condition of the patient and the degree of dilatation of the os. If the os is quite fully dilated and haemorrhage has ceased by the descent of the head acting as a tampon, the child may be allowed to be born by natural forces (as in 3 of the present writer's series of 33 cases, and in 43 of the St. Mary's Hospital 225 cases); or, if indicated, extracted by forceps (as in other 3 of the writer's series, and in 9 of the St. Mary's Hospital series). If the dilatation of the os is still partial, the placenta marginal, and haemorrhage slight, rupture of the membranes will hasten labour, with good results usually, as in 8 of the St. Mary's Hospital series, the placenta following the retracting wall of the uterus.

In many cases, more especially in marginal placenta praevia, treatment may be carried out with the aid of the dilating bags of Champetier de Ribes, Barnes, or Taylor. These are conical rubber bags of different sizes, the largest Barnes bag having a capacity of 400 to 500 cubic centimetres, the bag is rolled into a cylinder, introduced through the

membranes into the lower uterine segment by appropriate forceps, and then pumped full of sterile saline solution. When the bag is in position, haemorrhage is at once controlled, and dilatation of the cervix is gradually completed, aided by traction being put upon the bag. After dilatation is complete, the child should be delivered by forceps, (Fothergill: "Manual of Midwifery," 1907), or by version and extraction, (Williams: "Obstetrics", 1909). This method is supported by the statistics collected by Doderlein (Doderlein: *ibid*), who found that in 309 cases thus treated, there was a maternal mortality of 0.9%, and a foetal mortality of 25%; but the objection to these statistics is that the cases were in the main selected cases, and other manoeuvres were employed for the actual extraction of the child. Herman (Herman: *ibid*) considers this method gives better results than version, and authorities in general approve of it as a method of treatment. An important drawback, however, is that not infrequently between the expulsion of the bag and the delivery of the child, particularly when the head has been displaced from the pelvic brim, there is a serious risk of the occurrence of severe haemorrhage. Also, in general practice, there is difficulty in preserving a rubber bag so that it neither leaks or is too sticky when required so rarely and so hurriedly as in placenta praevia. (Tweedy and Wrench: *ibid*).

The old method of accouchement forcé, or forcible digital and manual dilatation with rapid extraction is now condemned by the best authorities. In placenta praevia the vascular cervix and lower uterine segment are particularly liable to laceration, and rupture of the uterus will frequently follow rapid manual or instrumental dilatation of the cervix. So late as 1900, however, this dangerous method was recommended by authorities of some standing (Fournier: International Congress of Medicine, Paris, 1900, Transactions. Harris: Transactions, Obstetrical Section of Pan-American Medical Congress, 1900), but the former at least may have become convinced of his error by the biting comments of Pinard in the discussion which followed.

In some exceptional cases, particularly in primipara, the cervix may be so rigid that it cannot be dilated to permit the more usual manoeuvres. In such a case the vagina and cervix may be packed with sterile gauze, which, in a few hours, will usually cause dilatation sufficient to allow the employment of one or other of the methods already described. The chief disadvantage of packing (employed in cases 2 and 3 of the St. Mary's Hospital series, with good results) is the danger of infection. E. P. Davis, and Bar, (Davis, and Bar: Discussion, xviiith Internat. Cong. of Med. 1913, London; Section viii, part 2) consider that the greatest danger in placenta

praevia is infection, not haemorrhage, but this is contrary to what the present writer has found on investigation, and to the opinion of Nagel (Nagel: same discussion); in the 18 deaths in the St. Mary's Hospital series of 225 cases, the cause of every one was essentially haemorrhage, sepsis complicating only one fatal case. McDonald (McDonald: "Surgery, Gynecology, and Obstetrics," June, 1911) states that not only does packing of the cervix increase the liability to sepsis, but it often does not control the bleeding; Williams (Williams: "Obstetrics") considers that it gives a sense of false security. Clifton Edgar (Edgar: "Amer. Journal of Obstetrics," July, 1911) however, outlines a series of 40 cases of placenta praevia, treated in 32 instances by cervical and vaginal gauze packing, with a maternal mortality of 7.5%, and an infant mortality of 32.25%. So that packing of the vagina and cervix may be considered quite sound treatment, with due precautions, unless in the case of a patient treated in hospital, where the question of employing caesarean section should have to be considered.

Caesarean section has recently, by some authorities, become more and more advocated for the treatment of placenta praevia. It was first recommended for the treatment of this condition by Lawson Tait (Lawson Tait: "Medical Record", 1899, No. 9) in the hope of reducing the considerable maternal

and infant mortality caused by the other methods of treatment. He has been strongly supported by Dudley (Dudley: "New York Med. Jour. Nov. 1900 lxxii, 754-760), Reynolds (Reynolds: "Obstetrics", vol. II, No. 1), Macpherson (Macpherson: "American Journal of Obstetrics", 1913, lxviii, 1140-43), Macfarlane (Macfarlane: "Journal of Obstetrics and Gynecology, 1912, p.347), Kronig (Kronig: "Operat. Gynakol." 3 Aufl. 1912), Davis, Recasens (Davis, and Recasens: Discussion, xviiith Internat. Cong. of Med. Transactions, Section viii, part 2), and others, all on the evidence of comparatively few cases, with the exception of Kronig, who reports 35 cases with no maternal death and 3 foetal deaths.

The statistics collected by Doderlein (Doderlein: *ibid*) show that in 146 cases of placenta praevia treated by abdominal caesarean section, by 67 different operators, there was a maternal mortality of 8.9% and a foetal mortality of 30%. In the same paper Doderlein gave the statistics of vaginal caesarean section, 159 cases by 19 different operators, with a maternal mortality of 11.3% and a foetal mortality of 21.7%. These statistics, however, are made up by collecting single cases, or very small groups of cases, selected and reported by the different operators, and the opinion of Berkeley and Bonney, (Berkeley and Bonney: "Difficulties and Emergencies of Obstetric Practice," 1913), that not sufficient

cases have yet been reported to judge whether caesarean section as a routine treatment of placenta praevia would lower the mortality, is justified.

CONCLUSIONS.

The conclusions of the present writer after the experience of his series of 33 cases of placenta praevia, the study of the notes of the series of 225 cases at St. Mary's Hospital, Manchester, and the evidence of the available literature, are that version by Braxton Hicks' manoeuvre, bringing down a foot and using the breech of the child as a tampon, constitutes, in spite of the accompanying high infantile mortality, the best routine method of treating placenta praevia, the other methods discussed being employed as the emergencies of particular cases demand. Before viability, both in cases treated in hospital and in general practice, the Braxton Hicks manoeuvre is demanded; after viability, where Champetier de Ribes' or Taylor's bag is available, this treatment, followed by internal version or extraction by forceps, finds a place; but where the bag is not available the Braxton Hicks manoeuvre is again indicated. When the patient is in labour, with considerable loss of blood, the child possessing little chance of living or being already dead, the Braxton Hicks method again should be employed, but whenever the Braxton Hicks manoeuvre is employed,

extraction afterwards must be slow. For slight varieties of placenta praevia, punctuating the membranes, followed by natural delivery, should be enough to control the haemorrhage. The packing of the vagina and the cervix may be employed when necessary, but at the best it is a makeshift method of treatment. Caesarean section has distinctly a restricted place; with the approach of full term, a central placenta praevia, profuse haemorrhage but with the child offering a reasonable chance of surviving, a rigid cervix suggesting difficult and prolonged dilatation, and the assurance of operative treatment in hospital, caesarean section may well be performed. In addition, where there is pelvic obstruction, and in cases of placenta praevia complicated by eclampsia, caesarean section is indicated.

But, even if the statistics do show the contrast of an infantile mortality of 30% and about 75% as between caesarean section and the Braxton Hicks method, yet one must remember that in cases of placenta praevia most of the infants are premature. Kuhn (Kuhn: Wiener Med. Jr., viii, p.431) followed the fate of the living infants of 46 cases of placenta praevia, and found that two months after delivery only two of them were alive. The real danger, moreover, to the child in placenta praevia is not so much from the haemorrhage as from asphyxia due to interruption of the circulation to the child

through the placenta. (Dudley: "New York Med.Journ." Nov. 3, 1900, lxxii, 754-760); so that a severe haemorrhage having once occurred, and such a haemorrhage is very frequently the first symptom of the presence of placenta praevia, the infant is possibly not able to be saved by any method of treatment. At present, therefore, while the maternal death rate in placenta praevia treated by caesarean section remains rather higher than the maternal deathrate in treatment by the Braxton Hicks method, it would not be at all advisable to recommend the displacement of the latter method by the former in order to save a few more weakly infants.

N O T E S

on a series of 33 cases of Placenta
Praevia personally treated at St.
Mary's Hospital, Manchester, 1913-1914.

H.M.P. Reg.No. 754. Admitted Aug. 25th 1913. Age 37.

3 previous confinements; 1st instrumental, 3rd twins.

Previous medical history - good health.

Menstruation began at 16 years; type 4 weeks; duration 5 days; quantity, much loss.

Last menses : Novr. 24th.

HISTORY: Oedema of legs and feet, no albumen in urine; constipated.

Bleeding began 7 days before labour, and immediately on commencing labour; on examination, os admits two fingers.

Central placenta praevia, presentation vertex L.O.A. Aug. 25th 10.30 p.m. Bipolar version under chloroform; leg brought down.

Aug. 26th 5 a.m. child born: laceration of cervix, 3 catgut sutures.

Sept. 10th, White leg - left leg.

Discharged: 29th Sept. condition good; breasts secreting; child, condition good, weight 9 lbs.

N.O. Reg.No. 788. Admitted Sept. 3rd 1913. Age 28.

Primipara.

Previous medical history - good health.

Menstruation began about 14 years; type, 4 weeks;
duration 5 days; quantity, fair.

Last menses November (uncertain)

HISTORY: Flooded 4 weeks ago, and again 12 hours
before admission.

Sept. 3rd: Uterus, full term: cervix admits two
fingers; central placenta praevia.

Patient bloodless, pulse 100; foetal heart sounds
faint.

10.15 a.m. Bipolar version under chloroform, leg
brought down.

Sept. 4th. 12.15 a.m. Child extracted, without
delay, under chloroform; stillborn.

Hot douche; perineum stitched.

Discharged: Sept. 20th, condition good.

M.B. Reg. No. 794. Admitted Sept. 5th. Age 24.

1 previous confinement. Labour and puerperium normal.

Previous medical history - good health.

Menstruation began at 14 years; type 21 days, duration 5 days; quantity considerable.

Last menses, Jan. 11th.

HISTORY: Bleeding began Sept. 5th, lost fair amount of blood.

Sept. 5th. Examined 9 a.m. cervix admitted 3 fingers, membranes unruptured. Edge of placenta felt within cervix, marginal placenta praevia; considerable loss of blood. Membranes ruptured, no further loss of blood, normal delivery 6.30 p.m.

Discharged: Sept. 16th, condition good; child (premature) died.

M.M. Reg.No. 803. Admitted Sept. 8th 1913. Age 38.

6 previous confinements, all children born alive, first two labours instrumental, prolapse during last two pregnancies; 1 abortion.

Previous medical history - good health.

Menstruation began at 13 years; type 28 days; duration, 3 days; quantity, fair.

Last menses: end of April.

HISTORY: Admitted from out-patient Department at 6½ months. On examination, arm of child was hanging through the cervix, child lying transversely; piece of placenta hanging through the cervix; free haemorrhage after rupture of membranes. Cervix admitted 3 fingers; central placenta praevia.

Sept. 8th. ^{Internal} ~~Bipolar~~ version under chloroform, child extracted and placenta manually removed; douche; no further loss of blood. **Child stillborn.**

Discharged: 19th Sept, condition good.

M.J. Reg.No.820. Admitted Sept.11th 1913. Age 36]

6 abortions previously.

Previous medical history, good otherwise.

Menstruation began at 14 years; type and duration uncertain.

HISTORY: Sept. 12th, examined under chloroform, uterus lying obliquely, markedly to left; uterus appears to have been ventro-fixed; lateral placenta praevia; child lying transversely.

Bipolar version. Leg brought down.

Sept. 13th, child extracted. Uterus contracted well for about 2 hours, but then relaxed, and there was slight but constant loss of blood and gradual collapse of patient. Salines, ergotin, pituitrin, camphor, all tried without improvement, and death ensued. Child stillborn.

The uterus here was undoubtedly syphilitic.

E.B. Reg.No. 830. Admitted Sept. 15th 1913. Age 32.

3 previous confinements, 1 abortion. 3 children born alive, all suckled, no complications.

Previous medical history, good health.

Menstruation began at 15 years; type 28 days; duration 3 days; quantity, fair.

Last menses, Feb. 17th.

HISTORY: Some oedema of legs, trace of albumen in urine.

Commenced bleeding when 7 months pregnant, 3 days before admission, but lost heavily on night before admission.

Sept 15th, On admission very pale, pulse rapid and feeble (140) Free loss of blood, cervix admits 3 fingers; central placenta praevia. Twins.

Bipolar version under chloroform; first child delivered, living; placenta removed manually.

Second membranes ruptured, leg brought down; second child delivered, living.

Second placenta (marginal placenta praevia) expressed.

Intra-uterine douche; cavity packed with gauze; ergotin, pituitary, salines.

Sept. 16th, much better.

Discharged: Sept. 21st, condition fair. First child (5½ lbs.) lived 35 minutes only. Second child living (5½ lbs.) condition fair.

N.D. Reg.No.845. Admitted Sept. 19th 1913. Age 34.

5 previous confinements, no abnormal labours, all children born alive and all suckled. 2 abortions, last 1 year ago.

Previous medical history - good health.

Menstruation began at 15 years; type 28 days; duration 4 days; quantity, considerable.

Last menses, Dec. 20th.

HISTORY: Has been bleeding since August 2nd off and on.

Sept. 19th. On examination, central placenta praevia.

8.15 a.m. Internal podalic version under chloroform, leg brought down, cervix three quarters dilated; pulse weak, patient very pale. 10.15 a.m. natural delivery; intra- uterine douche, ergotin. Child stillborn ($7\frac{1}{2}$ lbs.)

Discharged Oct. 1st, condition good.

E.W.Reg.No.911. Admitted Oct. 5th 1913. Age 37.

10 previous confinements, all born alive. 2 abortions

Previous medical history - rheumatic fever 13 years

ago, troubled with cardiac valvular disease since.

Menstruation began at 15 years; type 28 days;

duration 4 days; quantity, moderate.

Last menses, Jan. 6th.

HISTORY: Since the 7th month she has had three
floodings, the last yesterday. Admitted as case of
~~acute~~ ^{ante -} partum haemorrhage - lateral placenta praevia
found.

1 p.m. Os admitted 2 fingers; bipolar version under
chloroform; leg brought down.

3.20 p.m. Cord prolapsed; child delivered; still-
born (weight $8\frac{1}{2}$ lbs.)

Discharged Oct. 17th, condition good.

J.H. Reg.No.932. Admitted Oct. 9th 1913. Age 40.

3 previous confinements, all born alive; 1 abortion
2 years ago.

Previous medical history - good health.

Menstruation began at 17 years; type 25 days;
duration 5 days; quantity, moderate.

Last menses, beginning of April.

HISTORY: Has been bleeding off and on for past
three weeks.

Oct. 20th: Has had slight but frequent loss of
blood since admission; cervix not dilated.

Dilated with Clifford-Walls dilators, 3 gum elastic
bougies passed.

Oct. 21: Bougies expelled; no pains.

Oct. 22: Taylor's bag introduced.

Oct. 25th. Bag expelled: placenta presenting.

Placenta and foetus removed; intra-uterine douche.

Discharged: Nov. 1st, condition good. Child, still-
born (at 6th month) .

E.A.P. Reg.No.940. Admitted Oct. 10th 1913. Age 42.

2 previous confinements; one child born alive;
one stillborn.

Previous medical history - good health

Menstruation began at 15 years; type 28 days;
duration 4 days; quantity moderate.

Last menses: January, beginning.

HISTORY: Admitted for flooding and severe abdominal
pain for 6 hours; os admitted 2 fingers on admis-
sion; patient has now been in labour two days and
made no progress; now having labour pains. Forceps
applied and macerated child delivered, under chlor-
oform. Placenta nodular and numerous thrombi
studded over its surface. Child, stillborn
(macerated) weight $5\frac{1}{2}$ lbs.

Discharged Oct. 21st, condition good.

E.E. Reg.No.952. Admitted Oct.13th 1913. Age 27.

Primipara.

Previous medical history - good health.

Menstruation began at 13 years; type 28 days;
duration 5 days; quantity, small.

Last menses, Feb. 2nd.

HISTORY. Bleeding began on Oct. 4th and patient
lost blood daily until Oct. 12th; flooding on Oct.
13th.

Oct. 14th. Patient, 8 months pregnant, has been los-
ing heavily for 24 hours - On examination the cervix
admits 2 fingers; central placenta praevia felt.

12.45 a.m. Bipolar version performed under chloro-
form, and leg brought down; cord prolapsed.

3.30 a.m. Child delivered naturally.

No more loss of blood. Child stillborn.

Discharged Oct. 25th, condition good.

C.M. Reg.No.958. Admitted Oct.15th 1913. Age 39.

2 previous confinements, both forceps.

Previous medical history good.

Menstruation began at 16 years, type 21 days;
duration 2 days; quantity small.

Last menses, Jan. 15th.

HISTORY: Oct. 15th, patient admitted on account of
vomiting. Has been vomiting throughout pregnancy,
very badly for the last 3 weeks; slight haemorrhage .

Oct. 16th. Patient became very ill in the night,
pulse 140, fair amount of bleeding. Cervix fully
dilated; placenta praevia, lateral; forceps
applied; placenta removed manually.

Child 8 lbs. stillborn.

Discharged, Oct. 28th, condition good.

M.R. Reg.No.959. Admitted Oct.15th 1913. Age 28.

4 previous confinements, labours always very prolonged, 3 children born alive, 1 dead.

Previous medical history good.

Menstruation began at 13, type 28 days, duration 2 days. Quantity fair.

Last menses, May 10th.

HISTORY: patient 6 months pregnant; had been losing blood for 5 weeks; cervix not dilated; lateral placenta praevia; Oct. 22nd, bipolar version performed under chloroform, leg brought down.

Child born 5 hours later; placenta retained, removed manually, intra-uterine douche. Child still-born, weight $4\frac{1}{2}$ lbs.

Discharged Nov. 1st, Condition good.

M.E.O. Reg.No.1012. Admitted Nov.3rd 1913. Age 36.

7 previous confinements, last 3 years ago.

Previous medical history good.

Menstruation began at 14 years, type 28 days, duration 4 days.

Last menses, April 15th.

HISTORY. Before admission patient had been losing blood irregularly for past 6 weeks. On Nov. 3rd at 4 a.m. commenced serious flooding and had been packed before admission at 12.45 p.m. Examined; pulse 100, os admitted 2 fingers; central placenta praevia. At 2.30 p.m. Bipolar version, without extraction, was performed (foetal heart not heard). 4.30 p.m. Child born, weight 3 lbs. stillborn. intra-uterine douche.

Discharged Nov. 14th condition good.

A.R.Reg.No.1018. Admitted Nov. 4th 1913. Age 42.

7 previous confinements, last 3 years ago. 2nd instrumental. 1 abortion.

Previous medical history good.

Menstruation began at 15 years, type 28 days, duration 5 days, quantity unequal.

Last menses, March.

HISTORY; There had been irregular bleeding from the 7th month and on admission slight bleeding, pulse 84, os admitted 2 fingers; placenta praevia; Nov. 4th, 2.30 p.m. bipolar version performed, left foot brought down. Child born 3.20 p.m.; intra-uterine douche.

Discharged Nov. 15th, condition good.

Child: weight 3 lbs. 2 oz. premature, weakly; on bottle, takes feeds moderately well, umbilicus healed.

C.P. Reg.No.1028. Admitted Nov. 5th 1913. Age 28.

2 previous confinements, 3 years and 17 months ago,
both instrumental.

Previous medical history good.

Menstruation began at 13 years, type irregular,
duration 3-4 days.

Last menses, July 1st.

HISTORY. Patient had been losing blood since
August 24th after 7 weeks amenorrhoea, loss of clots
and lumps 14 days ago; "bearing down pains."

Nov. 5th os admits 1 finger, placenta felt immedi-
ately within os, uterus size corresponds to 4 months
pregnancy.

Nov. 6th aborted naturally, ovum complete.

Discharged Nov. 13th condition good, uterus retro-
flexed, slight discharge.

R.B. Reg. No.1029. Admitted Nov. 5th 1913. Age 34.

primipara.

Previous medical history; was in St. Mary's Hospital, High Street, a year ago for menorrhagia and dysmenorrhoea, and was curetted.

Menstruation irregular.

Last menses, February.

HISTORY. Patient had been losing blood during the whole pregnancy and had great floodings on August 24th and Nov. 5th. Examined at 12 midnight, pulse 96, central placenta praevia; urine loaded with albumen. Nov. 6th 2.30 p.m. chloroform, breech, leg brought down. Nov. 7th 2 a.m. child born, weight $7\frac{1}{2}$ lbs. (macerated); uterus full of clots, large placenta retained; removed manually; intra-uterine douche. There had been concealed haemorrhage probably before leg was brought down. Nov. 10th, traces of albumen still found.

Discharged Dec. 4th, condition fair, discharge slight.

M.L. Reg.No.1045. Admitted Nov.12th 1913. Aged 32.

4 previous confinements, normal; first 9 years,
last $2\frac{1}{2}$ years ago.

Previous medical history good; curetted a year ago
for menorrhagia.

Menstruation began at 13 years, type 28 days, dura-
tion 6 days.

Last menses, March 20th.

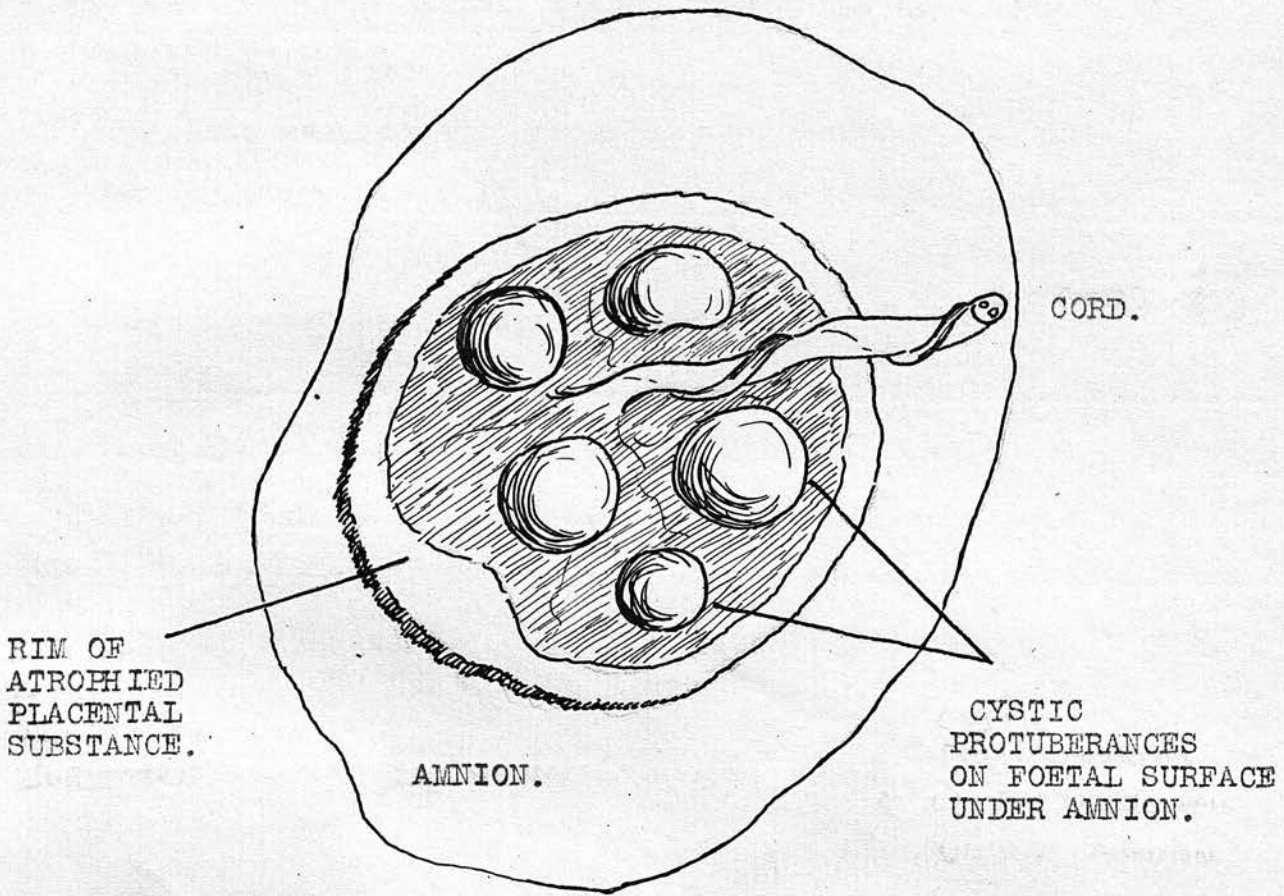
HISTORY; Patient had bled a little 3 weeks ago and
considerably on Nov. 9th and 12th.

Nov. 12th. Patient collapsed and pulseless on ad-
mission, losing freely; ~~central~~ placenta praevia.

^{external}
7.15 a.m. ^ version, leg pulled down, no anaesthetic;
salines, pituitrin. 9.45 a.m. natural delivery.

child weight $5\frac{1}{2}$ lbs. stillborn; no further loss of
blood.

Discharged Nov. 29th, condition good.



CASE - Reg.No. 1063. B.A.

B.A. Reg.No. 1063. Admitted Nov. 16th 1913. Age 34.

4 previous confinements, all ended prematurely with haemorrhages. 1 abortion (5 months) 2 years ago. 3 children born alive, 1 stillborn. Labours normal. White leg 2 years ago.

Previous medical history good.

Menstruation began at 14 years; type 28 days, duration 4 days; quantity "not too much".

Last menses, May 19th.

HISTORY: Bleeding began at 14th week, irregular loss since; pulse 84 on admission, os admitted finger tip. Nov. 25th; patient has been losing blood for several weeks, no dilation of cervix., lateral placenta praevia; 5 p.m. Taylor's bag was introduced.

Nov. 26th, 1 a.m. Bag expelled - no pains. 5.30 a.m. bag again put in .

Nov. 27th 4.30 a.m. Bag expelled, child born immediately, placenta intact, (cystic - see illustration); no further loss of blood.

Discharged Dec. 8th condition good, discharge slight.

Child 2½ lbs. weight, lived 24 hours.

M.F. Reg. No.1064. Admitted Nov. 16th 1913. Age.20.
Primpara.

Previous medical history good.

Menstruation began at 13 years; type 26 days, duration 4 days. Last menses March 15th.

HISTORY: Patient admitted for ante-partum haemorrhage which began 7 hours before admission. No pains - face and legs swollen, albumen in urine; central placenta praevia; 12 midnight, bipolar version performed under chloroform, leg brought down.

No. 17th 2.15 a.m. Child born, weight 4 lbs. still-born, no further bleeding; ultra-uterine douche; albumen still present.

Nov. 25th. Albumen still present.

Discharged Dec. 1st, condition fair, discharge blood-stained, still traces of albumen.

C.R. Reg. No. 1067. Admitted Nov. 17th 1913. Age 33.

5 previous confinements, first 12 years ago, last 4 years.

1st, Labour normal - child living.

2nd " " " "

3rd, breech - child stillborn

4th, forceps - child stillborn

5th, induction at 8th month - child living.

Previous medical history good.

Menstruation began at 15 years, type 28 days; duration 3 days; quantity fair.

Last menses March 13th.

HISTORY. Patient short stature - 4 ft. 8 ins. ^{contracted pelvis;} pulse 100; lateral placenta praevia. Nov. 19th 11.30 a.m. induction of labour with bougies (2) os patulous, placenta low, tendency to haemorrhage, 10.30 p.m. after a few pains, bougies expelled; smart haemorrhage, leg brought down under chloroform, os admitted 3 fingers. Nov. 20th 1.50 a.m. Child born, stillborn, intra-uterine douche, ergotin.

Discharged Dec. 1st condition good, free discharge.

C.R., Reg. No. 1116. Admitted Nov. 30th 1913. Age 38

5 previous confinements, last 1 year ago, normal.

Previous medical history good.

Menstruation began at 13 years; type irregular; duration 2-3 days. Last menses, April.

History. Irregular bleeding began on Nov. 28th, pulse 120, os admitted 2 fingers, lateral placenta praevia. Nov. 30th, 12 midnight, examined, cervix admits 1 finger; no pains, placenta felt behind; decided to wait, as only slight bleeding. Dec. 1st, sudden attack of severe haemorrhage. 10.30 a.m. chloroform given, placenta almost entirely separated, bipolar version performed, leg brought down, most of placenta removed manually. 11.25 a.m. child born, weight 8 lbs. stillborn; no further loss of blood.

Discharged Dec. 13th, condition good.

E.H. Reg. No. 1138. Admitted Dec. 6th 1913. Age 38.

11 previous confinements.

Previous medical history good.

Menstruation began at 13 years. Regular.

Last menses, uncertain.

HISTORY: Before admission version had been attempted and forceps tried. On admission, membranes long ruptured, uterus tightly contracted on child, retraction ring gripping child round shoulders; anterior lip cervix tremendously oedematous. Chloroform given; face converted into vertex; forceps applied but could not extract; placenta marginal, considerable bleeding. Perforation, extraction with cranioclast; placenta removed manually, membranes very adherent; intra-uterine douche. Child weighed 8 lbs.

Discharged Dec. 20th condition good; cervix heavy, torn, hypertrophied.

E.B. Reg. No. 4. Admitted Jan. 2nd 1914. Age 29.

Primipara.

Previous medical history good.

Menstruation began at 14 years; type 28 days;
duration 6 days; quantity fair.

Last menses, March 1913.

HISTORY: Full time; began bleeding on Dec. 31st
and had another worse attack on Jan. 2nd.

On admission, fair loss of blood, cervix admitted
1 finger. Temp. 99°. Pulse 112.

Jan. 2nd. 2 p.m. Bipolar version performed under
chloroform - leg brought down.

Jan. 3rd. Child born, 7.40 p.m. after-coming head
extracted; intra-uterine douche; perineum stitched.

Discharged. Jan. 17th condition good, breasts
secreting, perineum healed.

Child, weight 8 lbs, ~~condition good.~~ stillborn.

F.B. Reg, No. 38. Admitted Jan. 11th 1914. Age 24.

2 previous confinements, the last one year and ten months ago.

Previous medical history - good; has been vomiting slightly all through pregnancy.

Menstruation began at 15 years; type 28 days; duration, 4 days; quantity moderate.

Last menses, April, beginning.

HISTORY: Had first floodings at 7th month, second at 8th month, third at 8½ month, each for one day, not great loss; fourth flooding at 9th month for one day, and then abdominal pain for a week before admission.

On admission patient was losing no blood, and was left for several hours; at 5.30 p.m. the os was fully dilated, the head was engaged and there were strong labour pains. Child extracted by forceps, under chloroform. Placenta projecting below anterior lip of cervix; cervix and vagina lacerated, stitched. Some post-~~partum~~ haemorrhage; uterus packed. Patient collapsed; intra-venous saline, 2½ pints. Jan. 12th, packing removed; intra-uterine douche.

Discharged: Feb. 4th, condition good. Child on bottle, weight 7¼ lbs. condition good.

A.E. Reg. No. 43. Admitted Jan. 11th 1914. Age 27

3 previous confinements, first $5\frac{1}{2}$ years, last $1\frac{1}{2}$ years ago; normal.

Previous medical history good.

Menstruation began at 14 years; type 28 days; duration 4 days, quantity moderate.

Last menses, May 3rd 1913.

HISTORY. Patient had been bleeding from Dec. 24th to Dec. 31st and began again on Jan. 10th. On admission pulse 88, slight bleeding; os admitted 1 finger. Patient continued to lose blood slightly for a few days until Jan. 5th when a large clot was passed and haemorrhage became very free. Examined - central placenta praevia - os admitted 3 fingers. At 11.30 p.m. internal podalic version was performed under chloroform; delivery was rapid and child, weight $6\frac{1}{2}$ lbs, was born at 1.30 a.m., stillborn; bleeding continued slightly. Pituitrin and ergotin given.

Jan. 17th, patient had rigor. Jan. 18th, temp. fallen; Jan. 19th angina-like attack,? embolus, at 8 a.m., followed by gradual improvement. Jan. 23rd improvement in general condition, severe pain in left lung base, in axillary line, for 3 days, nothing definite. Sputum rusty, gelatinous.

Discharged. Feb. 26th, condition good.

S.A.S. Reg. No. 27. Admitted Jan. 20th 1914.

Age 40.

5 previous confinements - last 3 years ago.

Previous medical history good.

Menstruation began at 15 years; type 28 days;
duration 3 days; quantity fair.

Last menses, May 1913.

HISTORY: Sent in after attempts at version; arm prolapsed; membranes ruptured. Placenta marginal, completely separated, and patient losing blood.

Internal podalic version ~~and extraction~~ performed under chloroform; slow extraction later.

Discharged Jan. 21st, condition good.

Child; weight $6\frac{1}{2}$ lbs, stillborn.

C.B. Reg. No. 99. Admitted Jan. 25th 1914. Age 39

5 previous full time confinements.

2 abortions.

Previous medical history good.

Menstruation began at 14 years, type 28 days;

duration 3 days; quantity moderate.

Last menses, May 20th 1913.

bleeding freely on admission;

HISTORY: Jan. 25th, 9 p.m. Bipolar version perform-
ed under chloroform, leg brought down. 10.30 p.m.
child born, weight 5 lbs; stillborn; placenta
manually removed, intra-uterine douche.

Discharged, Feb. 7th, condition good.

A.B. 109. Reg. No. 109. Admitted Jan. 28th 1914.

Age 38.

8 previous confinements, normal labour; first, 17 years ago, last, 2 $\frac{1}{4}$ years. 3 abortions, first, 13 years ago, last, 3 years.

Previous medical history-good.

Menstruation began at 13 years, type 28 days, duration 4 days, quantity rather profuse.

Last menses May 19th 1913.

HISTORY. Slight bleeding began on Jan. 18th, patient then took to bed. On Jan. 28th bleeding began again severely, and on admission to hospital was free and continuous. Patient weak, pulse 100, Temp. 96.8. Breech case; 10.15 p.m. chloroform; leg pulled down; delivered 9.50 a.m. Jan. 29th.

Child stillborn.

Discharged, Feb. 9th, condition good.

T.H., Reg. No. 135. Admitted Feb. 4th 1914.

age 31.

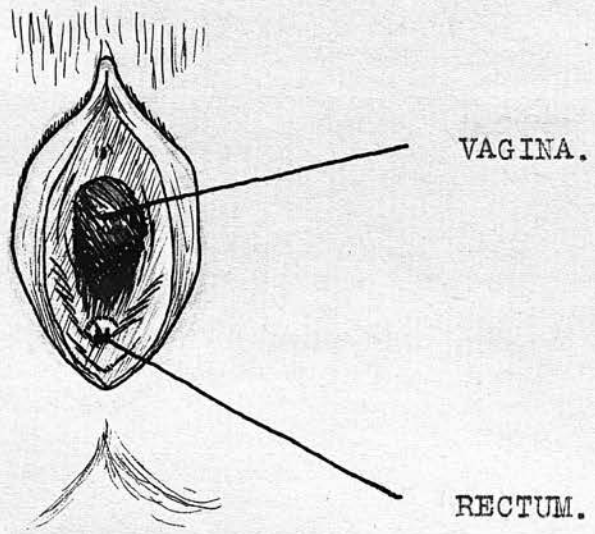
6 previous confinements, first 10 years ago, last 14 months; one child stillborn; last 3 children were born at $6\frac{1}{2}$ months.

Previous medical history - no illnesses. Menstruation began at 13 years, type 28 days, quantity scanty.

Last menses, before birth of last child.

HISTORY. Patient has had fits every 2 or 3 weeks during pregnancy; vomited several times day before admission; urine scanty; no albumen found; bleeding began day of admission, rather freely; lateral placenta praevia; os admitted 3 fingers, membranes ruptured. Natural delivery, 4.30 p.m. Child, weight $2\frac{1}{2}$ lbs. lived 24 hours.

Discharged, Feb. 16th condition good.



Case - Reg.No. 172. M.J.Y.

M.J.Y. Reg. No. 172. Admitted Feb. 16th 1914,
age 46.

6 previous confinements; first, 17 years, last, 10
years ago.

5 children born alive, 1 stillborn. 3 forceps and
chloroform (not consecutive). Previous medical
history good.

Menstruation regular, quantity fair.

Last Menses August.

HISTORY. Bleeding began a month before admission,
for a week; began again the day before admission,
in considerable quantity.

Feb. 16th, on examination, lateral placenta praevia;
anus found wanting, and rectum, ended at lower end
of vagina, just inside fourchette. Rectum packed
with gauze, vagina swabbed with tinct. Iodi, but
bipolar version not easy, not wishing to put whole
hand in vagina. 8.30 p.m. membranes ruptured, small
de Ribes bag introduced. 10.30 p.m. bag gradually
removed; version performed under chloroform, leg
pulled down.

11.30 p.m. patient delivered child, (weight $2\frac{1}{2}$ lbs,
stillborn, macerated), and placenta together.

Feb. 17th, gauze removed from rectum.

Discharged, March 5th, condition good.

M. F. Reg. No. 182. Admitted Feb. 18th 1914. Age
25. Primipara.

Previous medical history good.

Menstruation began at 14 years, type 28 days,
quantity fairly profuse. Last menses, June 10th
1913.

HISTORY. Bleeding began in considerable quantity
early on February 18th but ceased after admission.
Feb. 21st, examined; os admitted 1 finger, placenta
felt. 5.30 a.m. patient lost large quantity of
blood, and had slight pains. De Ribes bag intro-
duced under chloroform after dilating to 2 fingers.
10.30 a.m. De Ribes bag taken out, patient having
strong pains; internal version under chloroform,
leg brought down; delivered 11.10 a.m. Child still
born; intra-uterine douche.

Discharged March 8th, condition good.

E. G. Reg. No. 184. Admitted February 19th 1914.

Age 23.

2 previous confinements, normal, first 5 years ago, last 3 years.

1 abortion 4 years ago.

Previous medical history good, menorrhagia.

Menstruation began at 13 years, type 23 days, duration 6-7 days, quantity large.

History. Full time; vomiting and slight haemorrhage before admission; on examination, central placenta praevia. 5 p.m. Bi-polar version found impossible; ^{slow} manual dilatation of cervix to admit hand, then leg pulled down, 11 p.m. child born, still-born; placenta and membranes followed; intra-uterine douche.

Discharged. Feb. 29th, condition good.

ANALYSIS
and
SHORT NOTES
on
a series of 225 cases of placenta
praevia treated at St. Mary's Hospital,
Manchester, during 1910-1914.

ST. MARY'S HOSPITAL, MANCHESTER

SHORT NOTES on cases of Placenta Praevia.

1910.

No.	Reg. No.	Age.	Grav-ida.	Matur-ity.	Result M. C.	Treatment	Remarks.
1	93	38	6	39 wks.	L L	Natural Forces	Breech presentation.
2	121	21	1	7 mths.	L SB.	Plugged	Natural delivery
3	122	44	12	8 "	L L	Plugged & version.	Child lived $\frac{3}{4}$ hr
4	124	22	1	8 "	L LL	Nat.forces.	Twins died in hospital.
5	147	29	4	38 wks.	L L	" "	
6	214	36	6	36 wks.	L LL	Version to both.	Twins
7	218	30	8	Full	L L	Natl.forces.	
8	219	29	4	5 mths.	L SB	Induction by bougies.	
9	220	29	6	7 mths.	L SB	Bouges & De Ribes' Bag.	
10	236	38	9	8 mths.	L L	Nat.delivery.	Bleeding continued till head well down in perineum.
11	240	30	7	36 wks.	D SB	Version & delivery forthwith.	Mother was very weak & almost pulseless on admission thro loss of blood.
12	250	32	5	8 mths.	L SB	Version	
13	259	30	5	8 mths.	L SB	Version	
14	264	44	10	8 mths.	L SB	Natl.delivery.	
15	269	30	7	37 wks.	L L	De Ribes bag.	
16	350	33	7	8 $\frac{1}{2}$ mths.	L SB	De Ribes Bag	
17	358	25	1	35 wks.	L SB	Natl.forces	
18	364	22	3	8 mths.	L SB	Leg brought down.	Breech
19	368	34	5	36 wks.	D SB	Breech (Leg brought down).	Mother died 2 hrs. after admission.

No.	Reg. No.	Age.	Grav-ida.	Matur-ity.	Result M. C.	Treatment	Remarks.
20	376	39	12	Full	L L	Natl.delivery	
21	397	34	2	Full	L SB	Version	
22	402	27	5	36 wks.	L SB	Version	
23	415	35	10	6 mths.	L L	Version	Child died at end of 6 days.
24	420	33	8	Full	L L	De Ribes Bag & Forceps.	
25	421	21	1	7½ mths	L L	Version	Adherent placenta removed manually.
26	425	40	5	7 mths	L SB	Version	
27	473	35	3	Full	L L	Natl.forces.	
28	488	38	8	8½ mths	L SB	Version	
29	489	39	11	37 wks.	L SB	De Ribes Bag & Version.	

1911.

Case No.	Reg. No.	Age.	Grav- ida.	Matur- ity.	Result M. C.	Treatment.	Remarks
1	31	35	6	38 wks	L SB	Version	
2	43	45	8	6 mos.	L SB	Natl.forces	
3	50	32	5	8 mos.	L L	Forceps	Occipito-posterior
4	79	35	3	7 mos.	L SB	De Ribes' Bag	
5	90	34	7	8 mos.	L L	Version	
6	124	27	4	34 wks.	L SB	Natl.forces	
7	146	31	8	6½ mos.	L SB	Natl.forces	
8	159	23	4	8 mos.	D D	Version	Post-partum haem:
9	162	27	3	4 mos.	L SB	Version	
10	184	22	1	38 wks.	L L	Barnes' Bag. Version.	
11	193	30	1				Discharged undelvd.
12	213	42	9	6½ mos.	L D	Membranes ruptured.	
13	226	42	12	38 wks.	L D	Version	
14	240	23	2	Full	L L	Natl.forces	
15	214	38	1	7 mos.	L SB	Natl.forces	
16	245	34	1	8 mos.	L L	Version	
17	266	25	5	5 mos.	L SB	Version	
18	272	38	9	8 mos.	L L	Natl.forces	
19	329	35	4	6½ mos.	L D	Version	
20	345	41	7	Full	L L	Natl.forces.	
21	361	23	2	7½ mos	L L	Version	Breech.
22	383	37	4	8 mos.	L L	Natl.forces	
23	421	34	8	7 mos.	L SB	Induction Bougies.	
24	452	33	5	8 mos.	L D	Version	
25	453	32	7	Full	L SB	Version	
26	460	39	13	5 mos.	L D	Induction. Bougies.	
27	462	40	9	7 mos.	L D	do.	
28	465	29	5	7 mos	L SB	Version	Post-partum haem:
29	466	23	1	6 mos.	L SB	Induction. Bougies.Ver.	
30	474	40	8	7 mos.	L SB	Natl.forces	
31	477	21	3	7 mos.	L SB	Natl.forces.	
32	483	32	6	8 mos.	L D	Version	
33	488	26	3	8½ mos.	L L	Version	
34	490	33	7	8 mos.	L D	Version	
35	495	37	7	8½ mos.	D SB	Forceps	Moribund on ad- mission from haem: Admitted in state of collapse.
36	501	38	9		D SB	Forceps	
37	529	39	6	6½ mos.	L SB	Natl.forces	
38	543	34	4	7½ mos.	L D	Version	

1912.

Case No.	Reg. No.	Age.	Grav-ida.	Matur-ity.	Result. M.	Result. C.	Treatment.	Remarks.
1	43	32	10	Full	L	L	Natl.forces	Marginal.
2	56	38	13	6½ mos	L	SB	Version	
3	58	29	1	8 mos.	L	L	Natl.forces	Marginal
4	64	39	1	8½ mos.	L	SB	Version	
5	71	32	7	5 mos.	L	SB	Version	
6	103	30	5	6 mos.	L	D	Version	Post-partum Haem: Child lived 30 min.
7	106	35	11	5 mos.	L	SB	Version	Post-partum Haem:
8	118	34	7	6 mos.	L	SB	Natl.forces.	
9	122	40	9	7 mos.	D	SB	Version	Admitted after severe haemorrhage
10	126	38	10	Full	L	L	Natl.forces	
11	141	30	5	7 mos.	L	SB	Version	Prolapsed funis
12	148	27	1	7½ mos.	L	SB	Version	Transverse
13	150	42	16	4½ mos.	L	SB	Version	
14	172	44	8	6½ mos.	L	D	Version	Child lived 5 mins.
15	175	32	8	5½ mos.	L	SB	Version	
16	208	39	8	Full	L	L	Version	
17	220	39	4	Full	D	SB	Version	Post-partum haem:
18	224	40	12	5½ mos.	L	SB	Version	
19	246	23	2	7½ mos.	L	L	Natl.forces	Marginal
20	264	25	3	8 mos.	L	L	Natl.forces	
21	332	33	6	8 mos.	L	L	Version	
22	349	32	10	7½ mos	L	SB	Version	Foetal dropsy
23	392	24	3	7 mos.	L	SB	Version	
24	393	36	13	7 mos.	L	L	Version	Transverse. Pro- lapse of funis!
25	411	24	1	Full	L	L	Natl.forces	Os manually dilated
26	451	43	14	8 mos.	D	D	Version!	Admitted after severe haemorrhage.
27	453	26	2	Full	D	SB	Forcept	Admitted in collap- sed condition.
28	529	31	7	6 mos.	L	SB	Natl.forces	Breech
29	555	31	3	Full	L	L	Version	
30	560	24	2	7 mos.	L	SB	Version	
31	573	33	3	Full	L	SB	Version	
32	612	34	8	6 mos.	L	SB	Version	
33	633	33	9	7 mos.	L	SB	Version	
34	650	43	10	6 mos	L	SB	Version	
35	683	24	2	7 mos	L	SB	Version	
36	744	30	2	8 mos	L	L	Version	
37	777	39	11	6½ mos	L	SB	Version	
38	781	39	5	8 mos	D	SB	Version	Post-partum haem:
39	816	27	4	7 mos.	L	SB	Version	
40	887	36	9	7 mos.	L	L	Version	
41	894	38	12	7 mos.	D	SB	Version	Ruptured uterus. Hysterectomy.
42	1060	32	10	6½ mos	L	SB	Version.	Prolapse of funis.
43	1073	34	7	8 mos.	L	D	Version	Child lived 6 days
44	1085	44	9	7 mos.	L	SB	Version	
45	1087	28	8	Full	L	SB	Version	Transverse.
46	1088	38	10	7 mos.	L	SB	Version	

1913.

Case No.	Reg. No.	Age.	Grav-ida.	Matur-ity.	Treatment.	Result.	M.	C.	Remarks.
1	20	36	8	Full	Bipolar version.	L	L		Marginal
2	36	33	7	7 mos.	" "	L	D		Central
3	41	28	8	7 mos.	" "	L	SB		Lateral
4	46	26	2	6 mos.	" "	L	SB		Central
5	67	40	15	8 mos.	" "	L	SB		Central
6	72	33	6	Full	Natl.forces.	L	L		Marginal. Mem's ruptured.
7	129	39	6	8 mos.	Internal Ver:	L	L		Central
8	146	26	1	7 mos.	Bipolar version	L	SB		Marginal. Transvers
9	164	25	4	Full	Natl.forces.	L	L		Lateral. Mem's ruptured.
10	229	38	15	7 mos.	Natl.forces	L	SB		Central. Post-part-um haemorrhage.
11	233	38	6	Full	Bipolar version	L	SB		Central
12	238	36	4	8 mos.	Forceps	L	D		Marginal
13	419	33	3	8½ mos.	Internal Version	L	SB		Lateral. Post-p. Hae
14	447	34	3	Full	Internal do.	L	SB		Marginal do.
15	480	41	2	7½ mos.	Bipolar version	L	SB		
16	484	39	10	Full	Natl.forces.	L	L		Lateral
17	521	35	1	7½ mos.	Bipolar version	L	SB		Central
18	534	33	5	5 mos.	Extraction.	L	SB		Central. Breech
19	562	19	1	Full	Natl.forces.	L	L		Marginal. Mem's ruptured.
20	607	40	11	Full	Internal Versn.	L	SB		Marginal.
21	620	42	8	Full	" "	D	SB		Central. Mor. on admission.
22	659	33	4	8 mos.	Internal Versn.	L	SB		Marginal
23	678	32	3	8½ mos.	Bipolar versn.	L	L		Central
24	709	32	6	7 mos.	Internal versn.	L	D		Central
25	754	37	4	Full	Bipolar Versn.	L	L		Central
26	788	28	1	Full	" "	L	SB		Central
27	794	24	2	8 mos.	Natl.forces.	L	D		Lateral. Mem's ruptured.
28	803	38	7	6½ mos.	Internal versn.	L	SB		Lateral. Transverse
29	820	36	7	Full	Bipolar versn.	D	SB		Marginal. Post-p. haem;
30	830	32	4	7 mos.	Internal versn.	L	D		1st Placenta Cen: L 2nd " Lat:
31	845	34	8	Full	" "	L	SB		Central
32	911	37	3	Full	Bipolar version	L	SB		Marginal
33	932	40	5	6 mos.	Bag, Extraction	L	SB		Central
34	940	42	3	Full	Forceps.	L	SB		Lateral.
35	952	27	1	8 mos.	Bipolar version	L	SB		Central
36	958	39	3	Full	Forceps	L	SB		Lateral
37	959	28	5	6 mos.	Bipolar version	L	SB		Lateral
38	1012	36	7	7 mos.	Bipolar version	L	SB		Central
39	1018	42	9	7 mos.	" "	L	L		Marginal
40	1028	28	3	4½ mos.	Natl.forces	L	SB		Central
41	1029	34	1	Full	Leg brought down.	L	SB		Central. Breech. Al'uria.
42	1045	32	5	8 mos.	External Version Leg brought down.	L	SB		Central. Transverse.
43	1063	34	6	6 mos.	Taylor's bag	L	D		Lateral

1913 (Contd)

Case No.	Reg. No.	Age.	Grav- ida.	Matur- ity.	Treatment.	Result.		Remarks.
						M.	C.	
44	1064	20	1	8 mos.	Bipolar version	L	SB	Central. Al' uria.
45	1067	33	6	8 mos.	Leg brought down.	L	SB	Marginal. Breech
46	1116	38	5	7 mos.	Bipolar version	L	SB	Lateral.
47	1138	38	11	Full	Craniotomy etc.	L	SB	Lateral. Face.

1914.

Case No.	Reg. No.	Age.	Grav-ida.	Matur-ity.	Treatment.	Result M	Result C	Remarks.
1	4	29	1	7 mos.	Version Bipolar	L	SB	Marginal
2	27	40	5	7 mos.	" Internal	L	SB	"
3	38	24	3	Full	Forceps	L	L	
4	43	27	4	8 mos.	Version Internal	L	SB	Central. Embolu on 3rd day P.P.
5	99	39	8	8 mos.	Version Bipolar	L	SB	
6	109	38	12	8 mos.	Membrane ruptd. Leg brought down.	L	SB	Marginal. Breech
7	135	31	7	7 mos.	Mem. ruptured. Natl. forces.	L	D	
8	172	46	8	7½ mos.	De Ribes Bag & Version, Bipolar.	L	SB	Lateral. Macerated.
9	182	25	1	Full	De Ribes Bag & version, Internal.	L	SB	Lateral.
10	184	23	3	8 mos.	Version, Internal.	L	SB	Central.
11	226	40	8	Full		L	L	Lateral. Breech Extraction.
12	234	36	10	7 mos.	Version,	L	SB	Central.
13	244	38	7	Full	De Ribes Bag Breech Extract ⁿ .	L	L	Lateral.
14	266	37	11	Full	Mem. ruptd. Binder.	L	L	Lateral.
15	283	31	1	7½ mos.	Natl. forces.	L	D	Lateral.
16	345	39	5	7½ mos.	Version	L	SB	Central
17	346	40	6	7½ mos.	Version	L	D	Marginal
18	349	40	5	8 mos.	De Ribes Bag.	L	SB	Marginal
19	354	18	1	Full	Version.	D	SB	Central. Mor. on admission.
20	359	30	1	7½ mos.	Version	L	SB	Marginal. Al' uria.
21	370	25	4	7 mos.	Version	D	SB	Marginal. Post-P.H.
22	382	38	8	Full	Mem. ruptd. N.F. do. Ext.	L	L	Lateral
23	403	21	3	Full	Natl. forces	L	SB	Anencephalous Monster.
24	424	35	12	8 mos.	Version	L	SB	Central.
25	449	32	3	8 mos.	Version.	L	SB	Central
26	452	37	1	7½ mos.	Version.	D	D	Central. Mor. on admission, died ¾ hrs. after ver
27	519	33	3	Full	Version	L	L	Marginal.
28	525	44	18	7½ mos.	Version.	L	SB	Marginal.
29	527	26	1	7½ mos.	Version.	L	D	Marginal.
30	542	41	11	Full	Forceps	L	L	Marginal.
31	544	41	14	8 mos.	Version.	L	SB	Marginal.
32	560	26	6	7½ mos.	Extract ⁿ . Breech.	L	SB	Marginal
33	572	27	5	8 mos.	Version	L	SB	Central
34	592	42	14	8½ mos.	Mem. ruptd. Binder.	L	L	Lateral.
35	604	39	7	8 mos.	Version	L	SB	Marginal.
36	611	41	9	8 mos.	Mem. ruptd.	L	L	Lateral.
37	621	28	8	8 mos.	Version	L	SB	Central.

1914 (Contd)

Case No.	Reg. No.	Grav. Age.	Matur-ity.	Treatment.	Result.		Remarks.	
					M	C		
38	622	38	7	8 mos.	Version	L	D	Lateral
39	631	43	12	8 mos.	Version	L	SB	Marginal
40	669	30	3	8 mos.	Version	L	SB	Marginal. Pro-lapsed funis.
41	689	32	8	9 mos.	Mem's ruptd.	L	SB	Lateral.
42	735	29	5	8½ mos.	Version	L	SB	Central
43	750	37	5	Full	Version	L	SB	Marginal
44	781	30	1	Full	De Ribes Bag	L	SB	Central
45	807	27	2	Full		D		Died in a fit undelivered.
46	866	28	5	6½ mos.	De Ribes Bag	L	SB	Lateral. Al'uri
47	884	25	4	6 mos.	Mem's ruptd.	L	SB	Lateral do.
48	900	20	2	7½ mos.	Version	L	SB	Central
49	991	33	4	Full	Version	L	SB	Marginal. Transpress.
50	1037	23	3	7 mos.	Version	L	SB	Central
51	1068	35	8	Full	Mem's ruptd. Binder.	L	L	Lateral. Manual removal of placenta.
52	1089	36	7	7 mos.	Version	L	SB	Central.
53	1120	30	4	8 mos.	Bag & Version	L	D	Lateral.
54	1130	31	1	Full	Version	L	SB	Lateral. Macer. Foetus.
55	1146	36	14	7 mos.	Version	L	SB	Marginal
56	1189	37	4	7½ mos.	Version	L	SB	Central
57	1221	39	5	Full	Natl. forces	L	L	Lateral. Twins.
58	1252	25	4	6 mos.	Version	L	SB	Marginal. Pro-lapsed funis.
59	1260	39	4	Full	Natl. forces	L	L	Marginal.
60	1275	37	9	7½ mos.	Version	L	SB	Central P.P.H.
61	1329	32	8	6½ mos.	De Ribes Bag	L	SB	Lateral.
62	1348	34	8	Full	Natl. forces.	L	L	Marginal.
63	1352	25	4	7 mos.	Version	L	SB	Central.
64	1407	31	9	7 mos.	Version	D	UD	Central. Mor. on admission.
65	1417	29	4	5½ mos.	Induction.	L	SB	Marginal.

N O T E S
on
CAUSES OF DEATH in the
18 CASES OF MATERNAL
MORTALITY.

1910. Reg. No. 240. Age 30. Haemorrhage and Shock.

Patient admitted suffering from severe haemorrhage due to central placenta praevia. Delivered by internal podalic version, but died one hour later.

Reg. No. 368. Age 34. Haemorrhage and Shock.

Patient admitted from district in collapsed condition suffering from severe haemorrhage due to central placenta praevia. Temp. 96.4°; pulse 144. Eight months pregnant, Os three quarters dilated. Breech presentation, manual assistance. No. P.P.H. Died one hour later.

1911. Reg.No. 159. Age 23. Haemorrhage and Shock.

Patient (3-para) admitted in a state of collapse, suffering from placenta praevia. Delivery was immediately effected, but patient died two hours later.

Reg.No. 495. Age 37. Haemorrhage.

Patient (4-para) moribund on admission from haemorrhage. Delivered rapidly and bleeding stopped, but patient died three hours later.

Reg. No. 501. Age 38. Haemorrhage.

Patient (8 para) admitted in a state of collapse. Delivered, but never rallied.

1912. Reg.No.122. Age 40. Haemorrhage & Shock

Multipara. Admitted after severe haemorrhage. Internal podalic version with rapid delivery was performed, and the uterus packed. There was no post-partum haemorrhage, but the patient collapsed and died within an hour of delivery.

Reg.No. 220. Age 39. Ante-and Post-partum Haem:

Multipara. Patient was admitted in a state of collapse. Internal podalic version with extraction was performed. There was slight post-partum haemorrhage and the patient died immediately.

Reg.No. 451. Age 43. Haemorrhage & Shock.

Multipara. Patient admitted seven months' pregnant, after a severe haemorrhage. Internal podalic version with extraction was performed, followed immediately by death. Patient had had ante-partum haemorrhage on three previous occasions.

Reg. No.453. Age 26. Haemorrhage & Shock.

Multipara. Full term. Admitted in exceedingly collapsed condition after severe haemorrhage. Membranes ruptured some hours, but cervix not dilated; vertex presentation. The vagina was packed and a tight bandage

applied; this did not control the hæmorrhage, so the cervix was excised and the child extracted with forceps, injections of saline being given in the meantime. She died forty minutes after delivery.

Reg.No.781. Age 39. Ante-and Post-partum Haem:

Multipara. Admitted in collapsed condition after severe flooding due to central placenta prævia. Internal podalic version with immediate extraction was performed. This was followed by slight but continuous post-partum hæmorrhage, and patient died eight hours later, never having rallied.

Reg. No.894. Age 38. Haemorrhage & Rupture of Uterus.

Multipara. Patient was admitted in a collapsed state due to hæmorrhage from central placenta prævia. Internal podalic version without extraction was performed, and the patient rallied slightly. Eight hours later there was further severe hæmorrhage, and the child was extracted; an intra-uterine douche was given, and the uterine cavity packed with gauze. The patient appeared extremely collapsed, and on examination it was found that the uterus was ruptured into the left broad

ligament, and that some of the gauze had passed through. Abdominal hysterectomy was immediately performed, but the patient never rallied, dying an hour later.

1913. Reg.No.620. Age 42. Haemorrhage.

Multipara. Patient admitted moribund.

Stimulants. Died undelivered in an hour.

Reg.No.820. Age 36. Ante-and Post-partum Haem:

Multipara. Delivery by bipolar version.

Post-partum haemorrhage. Died next day.

1914. Reg.No.354. Age 18. Haemorrhage & Shock.

Patient admitted in a critical state.

Version was performed. Patient did not rally, and died next day.

Reg. No.370. Age 25. Post-partum Haem.& Sepsis.

Considerable post-partum haemorrhage, after version.

Patient developed puerperal sepsis.

Reg.No.452. Age 37. Haemorrhage and Shock.

Patient moribund on admission. Died three quarters of an hour after version.

Reg.No.807. Age 27. Haemorrhage & uncertain complications.

Multipara. One fit before delivery, and patient died in it, undelivered. Nature of fit doubtful. No albuminuria.

Reg. No.1407. Age 31. Haemorrhage.

Very anaemic, and collapsed on admission.
Died almost at once, undelivered.

In all of the 18 cases of maternal death the cause of death essentially was haemorrhage (including post-partum haemorrhage in 4 cases), complicated in one case by rupture of the uterus, in one other case by sepsis, and in one other case by a fit of uncertain origin.