

A BRIEF ANALYSIS OF FORTY CONSECUTIVE CASES  
OF PLACENTA PREVIA.\*

BY  
J. CLIFTON EDGAR, M. D.,  
New York.

THESE cases constitute the first forty instances of placenta previa treated in the Manhattan Maternity, during the period from February, 1905, to February, 1911.

During the above period, the same three attending surgeons have been on duty, and although the resident staff has, of necessity, changed from time to time, yet the same general principles of treatment have been in vogue, and the same definitions of the three varieties of placenta previa accepted and used for the classification of the cases herewith reported.

The terms central, partial and marginal we have applied to the conditions only after complete dilatation or complete dilatibility of the os.

This hospital carries on an in-door and out-door maternity service, and in addition receives ambulance or emergency cases from various hospitals of the city.

Of the forty cases, fifteen occurred and were treated in the in-door service; six were found among the tenement-house cases and transferred into the hospital; two were treated in their own homes, and seventeen were ambulance or emergency cases.

There were ten cases of central, nine of partial, and twenty-one of marginal placenta previa.

The hemorrhage occurred at the fifth lunar month in one case; at the sixth in two; at the seventh in six; at the eighth in twelve; the ninth in five; and the tenth in fourteen cases.

As would naturally be supposed, nearly half the cases occurred between the twenty-sixth and thirtieth year.

Thirteen took place in women during their first pregnancy; ten during the second, five during the third, the remainder varying from iv-para to xiii-para.

\*Read before the American Gynecological Society, May 23, 1911.

TABLE I. MONTH OF GESTATION.

Month of gestation	Central	Partial	Marginal	Total
Fifth.....	0	0	1	1
Sixth.....	0	0	2	2
Seventh.....	2	2	2	6
Eighth.....	5	2	5	12
Ninth.....	2	1	2	5
Tenth.....	1	4	9	14
Total.....	10	9	21	40

TABLE II. AGE OF PATIENTS.

Age	Central	Partial	Marginal	Total
16-20 years.....	0	0	2	2
20-25 years.....	1	1	5	7
26-30 years.....	3	5	10	18
31-35 years.....	4	2	3	9
36-40 years.....	2	1	1	4
Total.....	10	9	21	40

TABLE III. ORIGIN OF THE CASES.

Cases	Central	Partial	Marginal	Total
In-door.....	2	3	10	15
Transferred to in-door from out-door service.....	0	3	3	6
Out-door.....	0	0	2	2
Emergency cases.....	8	3	6	17
Total.....	10	9	21	40

TABLE IV. PARA.

Para	Central	Partial	Marginal	Total
I.....	3	1	9	13
II.....	4	3	3	10
III.....	1	2	2	5
IV.....	0	1	2	3
V.....	0	0	2	2
VI.....	0	0	2	2
VII.....	0	0	0	0
VIII.....	1	1	1	3
X.....	0	1	0	1
XIII.....	1	0	0	1
Total.....	10	9	21	40

## DURATION OF HEMORRHAGE WHEN FIRST SEEN.

The histories indicate that in seventeen instances, the hospital was called to or received the case immediately after the first sign of hemorrhage.

In nine cases, the hemorrhage had persisted for a few hours; several days in five instances; several weeks in six, and several months in three.

TABLE V.—DURATION OF HEMORRHAGE WHEN FIRST SEEN.

Seen at outset of hemorrhage in.....	17 cases.
Few hours.....	9 cases.
Several days.....	5 cases.
Several weeks.....	6 cases.
Several months.....	3 cases.
Total.....	40 cases.

## TREATMENT PRIOR TO ADMISSION TO THE HOSPITAL.

Of the forty cases, ten (cases I, II, IX, XI, XVI, XVII, XXI, XXV, XXXIV, XXXV), before being received by the hospital, had been examined and had the vagina packed with gauze to control the hemorrhage, either by a physician not connected with the hospital or by the ambulance surgeon.

Seven cases (Cases X, XIII, XX, XXIV, XXXII, XXXVI, XXXVII) were examined by the ambulance or other physician not connected with the hospital prior to admission.

This leaves twenty-three cases, only, that were exclusively treated by the hospital from the onset of the bleeding.

The accompanying table indicates the condition of the cervix as regards dilatation when the patients were first seen.

TABLE VI. AMOUNT OF CERVICAL DILATATION WHEN FIRST SEEN.

No cervical dilatation.....	2 cases.
One-finger dilatation.....	9 cases.
Two-finger dilatation.....	18 cases.
Three-finger dilatation.....	3 cases.
Four-finger dilatation.....	2 cases.
Full dilatation.....	1 case.
No record.....	5 cases.
	40 cases.

## TREATMENT.

The general line of treatment in these forty cases consisted: 1. In controlling the hemorrhage and securing cervical dilatation by means of cervical and vaginal gauze packing.

2. Completing dilatation by means of bimanual cervical dilatation, the Pomory hydrostatic bag, or the modified de Ribes bag.

3. Completing delivery by version and breech extraction, the forceps, simple breech extraction or spontaneously.

4. The postpartum packing of the uterus to prevent further bleeding, and the use of hypodermoclysis, rectal and venous infusion or other shock treatment.

5. The induction of labor.

In no instance was it considered that vaginal or abdominal Cesarean section was called for.

1. Cervical and vaginal gauze packing was used in thirty-two of the forty cases, as a hemostatic and cervical dilator. In four instances, the packing was applied twice; in two, three times, and in one case, repacking was used to control the oozing over a period of forty-eight hours. In sixteen of the thirty-two cases (50 per cent.) the packing alone was sufficient for causing dilatation. In the remaining sixteen, subsequent means of dilatation were called for. One died undilated (Case II).

2. The modified de Ribes hydrostatic bags have not been popular on our hospital service for placenta previa, and in only three instances was this method to control hemorrhage and secure dilatation used, namely, in Case V, a marginal one, and in Cases XII, and XL, the two latter partial cases.

The disfavor in which the modified de Ribes bags was held, was founded on the belief that in central and some partial cases, an unnecessarily early placental separation was caused, with subsequent internal concealed hemorrhage and also with high fetal mortality.

On the other hand, the Pomoroy hydrostatic bag was employed in seven instances (Cases XXI, XXII, XXVI, XXVII, XXXVI, XXXVIII and XL). These included three central, three partial and one marginal.

The Pomoroy bag, not entering the lower uterine segment to the extent that the de Ribes bag does, has not the objectionable features of the latter.

Rapid bimanual dilatation of the cervix was employed in twelve instances, but in only two cases (XXIV and XXXIII) as a primary measure, the remaining ten having been subjected to a preliminary gauze packing.

3. Version to complete labor was resorted to in twenty of the cases, and was followed by immediate breech extraction.

The forceps for the same purpose was brought into use in six cases.

4. Breech extraction in breech presentation was performed in five cases.

5. The postpartum packing of the uterus as a preventive of further bleeding was and is a routine measure of the hospital in placenta previa cases.

6. We considered it necessary in the forty cases to induce labor in nine instances; namely, one at the sixth month, five at the seventh, two at the eighth, and one at term. The means employed was cervical and vaginal gauze packing in four, the Pomoroy bag in three, and the modified de Ribes bag in two cases.

7. Spontaneous delivery was permitted to end the labor in eight instances. It is of interest to note that all of these were of the marginal variety of placenta previa. Seven of these eight cases were first packed; one only had no local treatment.

TABLE VII. METHODS OF TREATMENT.

1. Cervical and vaginal gauze packing.....	32 cases	( 80 per cent.)
2. Modified Champetier de Ribes bags.....	3 cases	( 7.5 per cent.)
Pomoroy bags.....	7 cases	( 17 per cent.)
Bimanual dilatation:		
As a primary measure, 2 }	12 cases	( 30 per cent.)
Following gauze packing, 10 }		
3. Version and breech extraction.....	20 cases	( 50 per cent.)
Forceps.....	6 cases	( 15 per cent.)
4. Breech extraction.....	5 cases	( 12.5 per cent.)
5. Postpartum uterine tamponade.....	40 cases	( 100 per cent.)
6. Induction of labor.....	9 cases	( 22.2 per cent.)
7. Spontaneous delivery.....	8 cases	( 20 per cent.)

#### RESULTS.

Of the mothers, three died (Cases II, VIII and XXXVI), a maternal mortality of 7.5 per cent.

The first of these cases (here Case II) was a woman, age twenty-seven, ii-para, eight months pregnant, partial variety of placenta previa, and was received by the hospital from an ambulance in profound shock, the vagina packed with gauze and the cervix thick and one and a half fingers dilated. In spite of the usual shock treatment, the patient died two hours after admission undelivered.

The cervix and vagina were repacked after admission, the hemorrhage being controlled, but the extreme shock did not warrant Cesarean or other attempt at delivery.

The second case (Case VIII) was thirty-nine years, viii-para, month of gestation seventh partial placenta previa, and went into labor in our tenement house service with moderate bleeding. Cervical and vaginal packing was employed, and the case transferred to the hospital, where she was repacked. Labor continued with little hemorrhage, and when fully dilated, an easy breech extraction was performed, the presentation being a breech. The postpartum uterus was packed.

The patient was frankly alcoholic and died on the fifth day from alcoholism and double lobar pneumonia. The fetus was still-born.

The third case (Case XXXVI) was thirty-nine years old, ii-para, eight months pregnant; central placenta previa, was received by the hospital as an emergency case, bleeding profusely, and this hemorrhage had continued for two hours before being brought to the hospital. The pulse was feeble and rapid, cervix two fingers dilated and thick.

Under ether, the cervix was fully dilated in one hour by Nos. 3 and 4 Pomoroy bags.

Version and breech extraction was then performed. Shock was treated by venous infusion and other means. After manual extraction of the placenta, a profuse postpartum hemorrhage followed, and before it could be controlled, the patient died. The fetus was still-born.

If we could be permitted to eliminate Case II, that was received from the ambulance in a moribund condition, and died in two hours undelivered, in spite of the usual shock treatment, and Case VIII, who was found in a tenement house frankly alcoholic and was delivered by an easy breech extraction, with little hemorrhage, dying on the fifth day postpartum of double lobar pneumonia, our mortality is one death in thirty-eight cases, or 2.6 per cent. Otherwise our total maternal mortality in the forty cases of placenta previa is 7.5 per cent.

Of the forty-one children, there was a twin pregnancy in a case of central placenta previa at the seventh month; fifteen were still-born and six of those born alive died within twenty-four hours of delivery.

Of the thirty-one children born after the seventh month, twenty-one were living and nine still-born. One patient (Case II) died undelivered.

This gives an infant mortality of viable children, of 32.25 per cent.

It should be added, however, that of the twenty-one children born alive, three died within twenty-four hours of birth (Cases I, XVIII, XXI).

Of the nine infants still-born after the seventh month, three were from instances of marginal placenta previa, two from partial, and four from central, making 44.4 per cent. of the central variety.

TABLE VIII. MATERNAL AND INFANT MORTALITY.

Variety of placenta previa	Number	Deaths		Still-birth.
		Mother	Baby within 24 hour.	
Central.....	10(1)	1	4	4
Partial.....	9	2(2)	0	4
Marginal.....	21	0	2	7
Total.....	40	3	6	15

(1) Eleven children. Case XXV, twin pregnancy seventh month.

(2) Case II, died two hours after admission undelivered. Case VIII, alcoholic, died double pneumonia.

The methods of delivery in the nine still-born children were:

- Gauze packing, bimanual dilatation, version and breech extraction in..... 5 cases
  - Gauze packing and spontaneous delivery..... 2 cases
  - Bimanual dilatation, version and breech extraction... 1 case
  - Pomeroy bag, version and breech extraction..... 1 case
- 9 cases

77.77 per cent. of the still-born children were delivered by version and breech extraction; 22.22 per cent. by spontaneous delivery.

The methods of delivery in the twenty-one living children born after the seventh month were:

- Packing, bimanual dilatation, version and breech extraction in..... 4 cases.
- Packing and spontaneous delivery in..... 2 cases.
- Spontaneous delivery in..... 2 cases.
- Pomeroy bag, version and breech extraction..... 4 cases.
- Pomeroy bag and simple breech extraction..... 1 case.

Pomeroy bag and forceps.....	1 case.
De Ribes bag and forceps.....	1 case.
Forceps alone.....	3 cases.
Simple breech extraction.....	1 case.
Bimanual dilatation and simple breech extraction....	1 case.
Bimanual dilatation and spontaneous delivery.....	1 case.
	21 cases.

About 40 per cent. of the living children were delivered by version and breech extraction. Half of these are preceded by gauze packing and half by the Pomeroy bag.

The remaining 60 per cent. were delivered by spontaneous delivery by the forceps and simple breech extraction in breech presentation.

Of the twenty-one infants born alive after the seventh month, thirteen were from cases of marginal placenta previa, four from partial and four from central, making 19.04 per cent. from central cases.

#### SUMMARY.

Forty cases of placenta previa—ten central, nine partial, twenty-one marginal. Seventeen cases were ambulance or emergency ones. Seventeen cases were first seen at the onset of the bleeding; in twenty-three the hemorrhage had lasted from a few hours to several days. Twenty-three cases only were exclusively treated by the hospital, the remaining seventeen had received various treatments before entering this hospital service. In twenty-nine cases the cervical dilatation was two fingers or less when first seen.

Treatment embraced: 1. Cervical and vaginal gauze packing in thirty-two cases; 2. de Ribes bags in three cases; Pomeroy bag in seven cases; bimanual dilatation as a primary measure in two, and following gauze packing in ten cases. Induction of labor in nine cases. The methods of delivery were:

1. Version and breech extraction in twenty cases; 2. forceps in six cases; 3. simple breech extraction in five cases; 4. spontaneous delivery in eight cases, making, with one case undelivered, forty cases. Postpartum uterine tamponade in forty cases.

Maternal mortality, 7.5 per cent.

Infant mortality, 32.25 per cent.



## CONCLUSIONS.

1. Cervical and vaginal gauze packing is an efficient means for controlling hemorrhage and securing dilatation in placenta previa.

2. The maternal mortality of 7.5 per cent. and infant mortality of 32.25 per cent. are satisfactory, taking into account the fact that about half of the cases were ambulance or emergency cases.

3. Version and breech extraction gives a higher infant mortality than delivery by the forceps, simple breech extraction, and spontaneous expulsion.

28 WEST FIFTY-SIXTH STREET.