

# A REVIEW OF 340 CASES OF PLACENTA PRAEVIA

by

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Placenta praevia and premature separation of placenta are the commonest causes of antepartum haemorrhage, giving rise to a high foetal loss and endangering the life of the mothers. Advent of antibiotics, establishment of blood-transfusion services, better premature baby care, modern anaesthetic techniques, have improved upon the management of placenta praevia, with resultant reduction in maternal mortality and foetal loss. Maternal mortality which was as high as 5% to 7% has come down to 0 to 1% and foetal loss from over 50% to 30%. The expectant line of treatment has shown beneficial effects in reducing foetal mortality, without jeopardising the life of the mothers.

The present review is based upon

340 cases of placenta praevia, admitted to the Nowrosjee Wadia Maternity Hospital, during the period 1962-1966. There were 60,900 deliveries giving an incidence of 1:188. (Table 1 shows the figures quoted by different workers.)

TABLE I  
*Comparative study of incidence of placenta praevia*

Berkeley (1936)	.. ..	1:98
Chakravorty (1937)	.. ..	1:100
King & Chun (1935)	.. ..	1:128
Menon (1963)	.. ..	1:205
Gun (1964)	.. ..	1:124
Wadia Hospital (1966)	.. ..	1:188

### *Types of Placenta praevia*

Cases were classified into marginal, incomplete central and complete central, determined by the relationship of the placenta to the internal os.

	Wadia Hospital (1966)	Macafee (1951)
1. Marginal and lateral (Browne's Grade I & II)	41%	48.1%
2. Incomplete central (Browne's Grade III)	35%	27.9%
3. Complete central (Browne's Grade IV)	23.9%	25%

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### *Relationship of Parity to Occurrence*

This demonstrates that parity plays a causative role, incidence increas-

*Relationship of Parity to Occurrence*

Parity	1	2-3	4-6	7-10	10 and above
Percentage of cases	11.1% (38)	31.1% (106)	43.2% (147)	10.8% (37)	3.8% (12)

ing with increase in parity.

*Recurrence*

In this series, there was only one case with a previous history of placenta praevia for which a caesarean section was done. She delivered vaginally on this occasion after artificial rupture of membranes. This gives an incidence of 0.29% of total number of placenta praevia cases.

*Onset of bleeding*

The classical symptom of placenta praevia is vaginal bleeding. The onset of the first bout of bleeding in terms of duration of pregnancy occurred as follows:

Duration in weeks	24-28	28-32	32-36	36-40
Wadia Hospital (1966)	6.1%	12.1%	64.1%	17.7%
Menon (1963)	10.3%	21.4%	38.5%	35.4%

In 81.8% of cases the first bout of haemorrhage occurred between 32 to 40 weeks. In a few cases bleeding occurred early at 24 weeks, and in one such case a hysterectomy had to be done because of profuse haemorrhage.

*Number of Bouts of Bleeding*

Majority of the patients had 1-2 bouts of bleeding, varying from mild to severe in nature, on admission.

Number of bouts	1-2	2-4	4-6	Nil
Percentage of cases	10%	18.8%	2.3%	8.9%

In 8.9% of the cases, the patient was not admitted for antepartum haemorrhage; but for abnormal presentations, such as non-engagement of the cephalic pole at term in a primipara, or the presence of a persistent transverse lie of the foetus.

*Presentations*

Vertex floating	..	69.9%
Breech	..	15.8%
Transverse and oblique	..	13%
Foetal parts felt, presentation indefinite	..	1.3%

In the majority of the patients, the head was floating or high floating and 28.8% had abnormal presentations.

Breech presentation occurred in 15.8% of cases—three and a half to four times more frequently than normally found. In a few cases, presentation could not be made out, as the foetus was too small.

*Diagnosis*

Diagnosis was made by relying upon the history of a bout of bright red vaginal bleeding, and later on, by a vaginal examination in the operation

theatre. In four cases of suspected placenta praevia, placentography was done and the diagnosis was confirmed. The newer methods for localization of the placenta were not available.

#### Treatment

There is no consistent course in the treatment of placenta praevia. Each case must be individualized. There is, however, a broad differentiation into groups of cases.

(a) Those treated along the expectant line of treatment as advocated by Macafee and others, and

(b) Those suitable for immediate "active line of treatment" thereby terminating the pregnancy.

In this series only 36 cases out of 340 were suitable for the expectant line of treatment (Table 2). We ap-

TABLE II  
Expectant line of treatment  
—Comparative study

Macafee (1951)	..	..	..	50%
Stallworthy (1950)	..	..	..	80%
Menon (1963)	..	..	..	28%
Gun (1964)	..	..	..	30.5%
Wadia Hospital (1966)	..	..	..	10.5%

preciate that the number is very small and hence our perinatal loss is still very high. Several factors were responsible for this.

(1) A large number—182 out of 340 cases were unregistered or emergency cases—not having paid a single visit to this hospital.

(2) Thirty-three cases (9.8%) were moribund on admission and a further 91 cases (26.6%) were definitely in a serious condition, for whom expectant line of treatment was out of question.

(3) Many of the patients were in labour when admitted to the hospital.

The expectant method of treatment was adopted along the usual lines, the same ending if the patient, while under observation, had a severe bout of bleeding or if the gestation period advanced to 37 weeks. No vaginal examination was done for this group, but a speculum was gently introduced to exclude the rare local causes of antepartum haemorrhage.

#### Active Management

Table 3 shows the percentage of the various methods employed. The selection of a particular method

TABLE III

	Wadia Hospital (1966)	Menon (1963)	Gun (1964)
(1) Expectant line of treatment	10.5%	28%	30.5%
(2) Active line of treatment			
(a) Normal delivery	13.2%	—	8.2%
(b) Artificial rupture of membranes & vaginal delivery	26.1%	29.6%	36.7%
(c) Internal podalic version & pulling down of the leg	9.8%	4.1%	3.3%
(d) Caesarean section	50%	55.3%	43.4%
(e) Willett's scalp traction forceps	0.9%	11%	10%

depended upon several factors such as, the condition of the mother, the condition of the foetus, the duration of the gestation period, the type of placenta praevia and the amount of blood loss.

1. Spontaneous delivery occurred in 45 cases (13.2%).

2. Artificial rupture of the membranes followed by spontaneous vaginal delivery occurred in 89 cases (26.1%).

3. *Caesarean section:* This was performed in 170 cases (50%). The rationale of performing caesarean section in placenta praevia is well known and understood. In all cases of total placenta praevia, regardless of other factors, caesarean section is the procedure of choice. In 4 cases a classical section was done, as there was fear of torrential bleeding endangering life from large vessels in the lower segment. In the remaining 166 cases a lower segment operation was carried out.

During this period at the Wadia Hospital, the total number of caesa-

rean sections done was 1387. This gives an incidence of 12.1% of the total. Table 4 shows the section rate in cases of placenta praevia as published by the various authors.

4. *Internal podalic version:* This was undertaken in 33 cases where the foetal heart sounds were absent and the placenta praevia was of Grade I to III. In one patient with a Grade IV placenta praevia, the placenta was perforated and the leg brought down as the patient had a haemoglobin of only 3.5 gms., and she was considered unfit for any anaesthesia. This patient, No. 6 in the maternal mortality table, (Table 6), succumbed. Most obstetricians would condemn this procedure, and even in the most unfavourable cases, a caesarean section would be safer, for the mother.

5. *Application of Willet's Scalp Traction Forceps:* This instrument is not favoured at this institution as elsewhere, and was used in only 3 cases where the foetal heart sounds were absent, and where bleeding continued after artificial rupture of the membranes.

*Blood transfusion:* The usual methods of resuscitation were used wherever indicated. The most important measure was the liberal replacement of blood loss in a case of placenta praevia. Table 5 shows the volume of blood replaced in 204 patients who were given blood transfusions.

TABLE IV

Caesarean section	Comparative study
Rucker (1931)	5%
Macafee (1945)	39.1%
Stallworthy (1951)	40%
Menon (1963)	55.3%
Gun (1964)	43.4%
Wadia Hospital (1966)	50%

TABLE V

Blood transfusions given:	Nil	1-2	2-4	4-6	6-8	8-10	10 & more
No. of bottles (350 c.c. each)	136	79	87	25	3	8	2

**Maternal mortality:** There were six deaths in this series giving an incidence of 1.7% of the total number of placenta praevia cases. Table 6 gives the details of the cases. very high incidence indeed. The still-birth rate was 32.9%, and, in addition, there was a further neonatal loss of 10%. Majority of the neonatal deaths occurred from prematurity.

TABLE VI  
*Maternal Mortality—Details of the cases*

No.	Age Yrs.	Parity	Fundal height	General condition	Treatment	Cause of death
1	36	10	32 wks.	Poor	Artificial rupture of membranes and vaginal delivery	Peripheral failure
2	28	2	32 wks.	Poor	Lower segment caesarean section	Peripheral failure
3	22	2	32 wks.	Poor	Nil	Peripheral failure
4	28	5	36 wks.	Fair	Lower segment caesarean section	Peripheral failure
5	22	2	36 wks.	Fair	Lower segment caesarean section	Peripheral failure
6	26	4	36 wks.	Poor	Perforation of placenta	Peripheral failure

All the cases were unregistered; there was no death among the booked cases.

**Maternal morbidity.** The commonest complications in spite of prophylactic antibiotic therapy were pelvic sepsis and urinary tract infections. Table 7 shows the various complications met with in this series.

TABLE VII  
*Maternal morbidity*

1. Puerperal sepsis	20 cases
2. Post-partum haemorrhage	6 cases
3. Thrombo-phlebitis	2 cases
4. Burst abdomen	1 case
5. Cervical tear	1 case
6. Urinary sepsis	10 cases

**Perinatal mortality:** The gross foetal loss in this series was 42.9%, a

#### *Summary and Conclusions*

A review of 340 cases of placenta praevia is presented. The incidence of this abnormality was 1 in 188 confinements. The gross maternal and foetal loss was 1.7% and 42.9% respectively. What is most distressing is that many of the deaths were preventable.

We hope that with the better training of midwives and medical students, there will be a better appreciation of the dangers of antepartum haemorrhage, so that patients are hospitalized earlier, and not exsanguinated, before admission. When adequate prenatal and intranatal care is extended to the rural areas, a further salvage

of mothers and babies will lower the mortality rates.

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