MATERNAL PROGNOSIS IN PLACENTA PREVIA†

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Placenta previa is less frequent than accidental haemorrhage in our hospital. Its incidence is 1.38% of all deliveries and is seen more often in elderly grand multis. It was responsible for 4.6% of all maternal deaths in our institution (Table 1).

TABLE I
Incidence
(Erskine Hospital, Madurai, 1968-72)

Total deliveries	33,474
Placenta previa	462 (1.38%)
Maternal deaths	345
Due to placenta previa	16 (4.6%)
Maternal mortality in placenta previa (16/462)	3.44%

Out of 462 cases of placenta previa admitted in Govt. Erskine Hospital, Madurai during 5 years (1968-1972), 16 (3.44%) died. Several factors which influence the maternal prognosis in this condition are analysed.

(i) Early Hospitalisation without Vaginal Examination.

In this series there were only 17 booked cases. Others were emergency admissions brought in from the city and from a radius of 50-100 kms. outside it. Because of transport problems some patients took 5 to 6 hours to report at the hospital and this delay caused the death in 2 of our cases. Few of them had ignored the first bout of bleeding and came late when it was massive.

Though the universal teaching is no vaginal examination for antepartum haemorrhage, the practice in the field (especially by the paramedical personnel and sometimes by medical officers) is to do a digital palpation of the placenta which provokes profuse bleeding. Seven patients were brought in moribund and died in a few minutes. Three of our cases reported with vaginal plugs adding sepsis to the shock. In 74 cases where pelvic examination was done outside, the mortality was of 9.4%, whereas in the remaining 388 cases it was 2.3%.

In those cases of antepartum haemorrhage admitted in shock one more digital examination after resuscitation adds to the shock. Such examination on the table may cause torrential blood loss and her condition may be worsened by postpartum haemorrhage following surgery and tilt the balance against her. In 2, the death was due to this. Elective caesarean section without pelvic examination is better in such cases when she is not in labour and there is associated malpresentation or a high floating head.

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(ii) Maturity: One out of 4 cases were 32 weeks and less (Table II). Because of prematurity there is a risk of procrastination by the patient when the bleeding is slight. Expectant line of treatment was followed in 11.5% of our cases. When pregnancy is 28 weeks or less, there is reluctance to do a hysterotomy for placenta previa. One patient died undelivered due to haemorrhagic shock. A hysterotomy earlier would have saved her.

larger amounts. Irrespective of the foetal condition, caesarean section gives better results. It may be seen from Table III that all 7 moribund admissions had major types of placenta previa.

(iv) Malpresentations were seen in one third of our cases (breech: 23.3% transverse lie: 8.6% unstable lie 0.8%). Maternal and foetal prognosis is improved by caesarean section in the presence of malpresentations.

(v) Method of Delivery: Out of 462

TABLE II
Maturity

Maturity	No. of cases	%	Deaths	
			delivered	undelivered
28 weeks & less	9	(2.0)	–	1
28-32 weeks	96	(20.8)	–	2
32-36 weeks	206	(44 6)	4	4
36 weeks to FT	151	(32.6)	3	1
Total	462	(100.00)	7	8

(iii) Type of Placenta Previa: The prognosis is good in minor degrees of placenta previa. In type II posterior, bleeding is likely with conservative treatment and abdominal delivery is therefore preferable. Prognosis worsens with major degrees of placenta previa as haemorrhage may be earlier, repeated and in cases, 8 died undelivered, 30.0% had vaginal delivery and 68.2% caesarean section (Table IV). Willets forceps was not used. Most vaginal deliveries were in minor degrees of placenta previa. One case of type II anterior developed amniotic fluid embolism and coagulation failure soon after vaginal delivery following am-

TABLE III
Type of Placenta Previa

Type	No.	%	Deaths	Undelivered
Type I	30	(6.5)	Nil	
Type II	Ant. III	(42.4)	1*	1
	Post 85		2	
Type III	94	(51.1)	7	3
Type IV	192		6	4
Total	462	100.0	16	8

*Amniotic Fluid embolism.

TABLE IV
Method of Delivery

Nature of delivery	Type of Placenta previa					Total	%	Deaths
	I	II Ant.	Post.	III	IV			
Vaginal delivery	30	103	5	1	Nil	139	(90.1)	1*
Caesarean Section	–	8	79	90	138	315	(68.2)	7
Died undelivered	–	–	1	3	4	8	(1.7)	8
Total	30	111	85	94	142	462	(100.0)	16

*A.F. Embolism.

niotomy and pitocin drip. Caesarean section performed in severe degrees of placenta previa carries a mortality of 2.2%. This was partly due to preoperative shock, insufficient transfusion and delayed postoperative haemorrhage. Classical section with sterilisation was done in 21, mostly due to vascular lower segment. The causes of death in the caesarean group are given in Table V. Observation of the patient after delivery is extremely important. One should be on the alert against PPH whether the delivery is abdominal or vaginal. During caesarean, if the uterus is lax or if the placenta is accreta, hysterectomy is indicated. In this series. 5 had coagulation failure, 3 of them following caesarean section. It may set in 1-3 hours after delivery. Delayed post partum blood loss influences the prognosis, especially when a patient had a caesarean section soon after recovery from initial shock.

TABLE V
Placenta Previa—Maternal Prognosis

Deaths Following Caesarean Section	
Haemorrhagic shock	2
Coagulation failure	1
Renal failure (Transf. reaction)	1
Paralytic ileus	1
Pulm. embolism (8th day; 10th day)	2
	7

Amongst those who died undelivered, 7 were moribund admissions and one due to conservative treatment in hospital at 28 weeks of pregnancy (Table IV).

(vi) Blood Transfusion: It is an important factor influencing maternal prognosis in this condition, if given promptly, correctly and in adequate amounts. In 26.0% of our cases, no transfusion was given. Two to 3 units were needed by 20.2% of patients (Table VI). This table

TABLE VI
Role of Blool Transfusion

No. of units given	%	Cause of deaths:
None	26.0%	No blool in Bank:
1 Unit	52.8%	No blood given, moribund admission
2 Units	10.2%	and died in few mins.
3 Units and over	10.0%	Delayed & inadequate
Total	100.0%	Mismatched transfusion

also indicates how deficiencies in the transfusion set up contributed to maternal deaths in placenta previa in our hospital. Associated chronic anaemia also worsens the prognosis.

The perinatal mortality was 48.9%. In one third of cases, the foetal heart was inaudible on admission.

Discussion

The maternal prognosis in placenta previa has remarkably improved in countries and in institutions where the patient reports early after a warning bout of haemorrhage and adequate transfusion and surgical facilities are available. The maternal mortality in these institutions varies from nil to 1.5% (Macafee, 1951; Stallworthy, 1961; Grant, 1955; Greenhil, 1966). However in developing countries like India the maternal death rates due to placenta previa may vary from 0.46% to 6.6% (Table VII). In our series it was 3.44% (Corrected from moribund admissions, it would be 1.9%). If the interval between first haemorrhage and hospitalisation could be reduced and vaginal examination withheld outside the hospital, the prognosis improves remarkably. Improved transport, communications and proper health education of patients and paramedical personnel are necessary in the rural and semi-urban areas. Flying squads with emergency transfusion facilities are urgently needed. In major degrees of placenta previa and in Type II posterior, caesarean section gives better outlook for both the mother and child. The incidence of caesarean section varies from 43.4% (Gun 1964) to 88.9% (Eastman, 1966). In our series it was 68.2%. Even after the delivery, one should guard against delayed postpartum haemorrhage and coagulation failure. Chronic anaemia in our country may vitiate the management and prognosis in placenta previa.

TABLE VII
Maternal Mortality

Author	No. of cases	M.M.%	Author	No. of cases	M.M.%
Chakravarthy (1937)	500	9.0	Berkeley (1936)	4580	7.0
Mehta (1941)	471	6.6	McCafee (1951)	108	0.93
Menon (1963)	410	2.2	Greenhill (1960)	2141	1.5
Gun (1964)	219	0.46	Stallworthy (1951)	250	0.2
Lele et al (1968)	340	1.7			
Ours (1973)	462	3.4	Grant (1955)	200	Nil

Summary

Placenta previa was responsible for 1 out of 20 maternal deaths in Erskine Hospital, Madurai. For 5 years (1968-1972) there were 462 cases of placenta previa and 16 (3.44%) deaths. Eight died undelivered of whom 7 were brought in moribund condition after vaginal examination outside.

Early hospitalisation without pelvic

examination, prompt and adequate transfusion with caesarean section in major degrees of placenta previa improves maternal prognosis. One has to guard against delayed postpartum haemorrhage and coagulation failure whether the delivery is vaginal or abdominal.

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