

## RECENT TRENDS IN THE MANAGEMENT OF PLACENTA PRAEVIA

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### SUMMARY

A review of 31800 deliveries over a 3 years period from January 1 1986 - December 31 1988 showed that 132 cases of placenta praevia were encountered during this period. Incidence of placenta praevia was noted to be 0.4%. It was observed that there was an increasing incidence in use of caesarean section for the management of placenta praevia, thus the caesarean section rate has tripled over the last 20 years. The perinatal mortality has reduced from 514/1000 in 1931-1960 to 166/1000 in the current study. The maternal mortality also significantly declined from 3.76% to 0.75% in the same period.

### INTRODUCTION

Placenta praevia today still remains a major cause of maternal and perinatal mortality and morbidity in our country. Various methods of managing this condition have been practised over the last few decades. In this article we evaluate the trends in management of placenta praevia today.

### MATERIALS AND METHODS

This is a study of 132 cases of placenta praevia admitted over a period of 3 years

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at the Nowrosjee Wadia Maternity Hospital. A total of 31800 deliveries during this period included 132 cases of placenta praevia with an incidence of 0.4%.

**Age** - Most patients were between 20-29 years.

**Parity** - Most women were of low parity whereas previously multiparity was one of the major factors responsible for the occurrence of placenta praevia.

**Registration status** - 84.8% of patients were registered whereas only 15.1% were admitted through emergency.

**Ultrasound examination** - Almost an

equal incidence of major and minor degrees of placenta praevia were seen on ultrasound. An astonishing 15% of cases of placenta praevia were misdiagnosed on ultrasonography. However all these cases were diagnosed by the transabdominal route whereas the transvaginal route has a greater accuracy. In these cases inaccuracy usually results because of (1) acoustic shadow cast by the fetal head which interferes with visualisation of the low lying placenta (2) Requirement of full bladder which displaces the lower uterine segment and produces a false diagnosis of placenta praevia.

### CONSERVATIVE MANAGEMENT

In 63% of cases the first bout of bleeding occurred after 33 weeks. Except in cases where the patient presented with heavy uncontrolled bleeding which compromised both mother and fetus, conservative therapy with bed rest and blood transfusions was started. IN 46.67% of cases conservative therapy was carried out for more than 5 weeks duration.

### MODE OF DELIVERY

121 out of 132 cases were delivered by caesarean section and only 11 delivered vaginally, giving a caesarean section rate 91.6%. Of these 100 were taken up as emergency procedures and 21 were elective following successful conservative management.

	Elective CS	Emergency CS	Vaginal delivery
< 36 weeks	1	40	6
= 36 weeks			
> 36 Weeks	20	60	5
	21	100	11

Associated factors included previous caesarean section, abnormal presentation, BOH, fetal distress, cord presentation and cord prolapse. In agreement with the study by Rose and Chapman (1986) we also found a significant relation between placenta praevia and previous caesarean section. These findings are consistent with the hypothesis that endometrial/myometrial damage is a significant aetiological factor in low placental implantation.

### PERINATAL OUTCOME

As per Apgar scores recorded, 66.6% of babies delivered by caesarean section had Apgar scores > or = 7 at 1 minute as compared to 27% delivered vaginally.

Apgar Scores	1 Minute		5 Minutes	
	CS	Vag.del.	CS	Vag.del.
> 7	66.3%	27.27%	80.99%	36.36%
5 - 7	27.48%	63.64%	14.88%	54.54%
< 5	6.22%	9.09%	4.13%	9.1%

### BIRTHWEIGHT

30% of babies had a birthweight more than 2.5 kg. with success of conservative management. A level 2 neonatal nursery enabled us to salvage most babies between 1.5 - 2 kg.

Weight in kg.	CS	Vaginal delivery	Total	Percentage
< 1.5	10	5	15	11.36
1.6-1.9	23	4	27	20.46
2-2.4	45	2	47	35.6
2.5-3	29	-	29	21.97
> 3	14	-	14	10.61

All babies with a birthweight of 2.5 kg. or more were delivered by caesarean section. There was no mortality in this group. This seems to further confirm the conclusion drawn by Mehta (1987) in a study carried out in the same hospital in which he states that all patients with viable fetuses should be delivered by caesarean section without regard to the degree of placenta praevia. Patients being treated expectantly should have interval caesarean section when fetal maturity can be documented. He had no fetal death in his 30 cases of placenta praevia, all delivered by caesarean section. However there were 4 deaths in the neonatal period.

#### PERINATAL MORTALITY AND MORBIDITY

The perinatal mortality was 166/1000 and corrected for severe prematurity and birthweight less than 1.5 kg. was 68/1000.

of prematurity.

#### MATERNAL MORBIDITY AND MORTALITY

10 patients required transfusions of more than 3 units of blood. Of 121 patients undergoing caesarean section, 3 patients had to undergo caesarean hysterectomy. Of these 3, 1 patient had a cardiac arrest intraoperatively following severe bleeding and died subsequently. The maternal mortality rate was 0.75% in comparison to a study by Dr. Daftary et al 1962 with a maternal mortality of 3.76% and a mortality of 0.78% Motwani et al 1989.

This was an appreciable reduction in maternal mortality compared to figures by 2.1 - 6.4% and Mehta 1987 of 1.69%.

Thus the caesarean section rate has tripled over the last 20 years from 29.6% to 91.6%.

Year	Spontaneous delivery with/without ARM	Version + pulling down the leg	Willett's Forceps	Caesarean Section
1931-35	33.3%	57.5%	8.5%	0.6%
1941-45	63.8%	29.3%	7.9%	-
1956-60	51.2%	13.2%	4.5%	29.6%
1986-88	8.3%	-	-	91.6%

There was thus a marked reduction in perinatal mortality in comparison to the study by Dr. Daftary et al 1962 where the perinatal mortality was 514/1000.

About 36.3% of babies were delivered before 37 completed weeks of gestation thus giving a very high percentage

#### DISCUSSION

Treatment of placenta praevia has undergone a radical change over the past century. Initially due to the lack of proper diagnostic facilities and unavailability of blood transfusion and antibiotics, maternal mortality due to caesarean section was almost 100%. In a bid to save the mother's life,

the infant invariably had to be sacrificed with methods like use of Willett's scalp traction forceps and internal podalic version with pulling down the leg to compress the bleeding placenta being the predominant methods of management.

However today with free availability of ultrasonography, an early diagnosis of this condition with adoption of conservative management to carry pre-viable babies to viability will definitely improve the perinatal morbidity and mortality. Optimal neonatal intensive care facilities must be made available for a further reduction in the perinatal mortality especially if elective caesarean sections are to be considered earlier to reduce maternal morbidity of haemorrhage, shock and blood replacement.

As per the study by Nanavati and Patel (1985) there has been a definite decrease in incidence of placenta praevia and also a marked reduction in the number of emergency admission.

Ultrasonography must be performed for placental localisation as a routine especially in cases with a previous caesarean section or with an abnormal lie. As observed by Danforth (1982). 'If there is a uterine scar the placenta is more likely to be implanted over it' and Brenner et al (1978). 'The incidence of placenta praevia is higher in women with a previous caesarean section as compared to normal women'.

According to Donald and Abdulla (1968), Kohoron et al (1969) confirmation of placental localisation at caesarean section is correct in 96% cases. Rescan must be performed in patients with a low lying

placenta or a partial placenta praevia. However when the initial scan showed complete placenta praevia there was no change in placental position in 90.9%.

### CONCLUSION

Caesarean section is now the mainstay of treatment of cases of placenta praevia. This has resulted in an appreciable reduction in perinatal and maternal mortality.

All patients treated with conservative means should undergo an elective caesarean section as soon as fetal maturity can be documented to further minimise the maternal morbidity resulting from haemorrhage and its associated complications.

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### REFERENCES

1. Brenner W.E., Edelman D.A., Hendricks C.H. *Am J Obstet Gynec.* 132 : 180, 1978.
2. Daftary S.N., Joshi .K., Hemmady *J Obstet & Gynec. Ind.* 12 : 667, 1962.
3. Dantorth D.N. (ed): *Textbook of Obst. & Gynaec.* 4th Ed 1982 Pg 443, N.Y. Harper and Row.
4. Donald I., Abdulla U.J of *Obstet & Gynec. Brit C, Wealth* 75 : 993, 1968.
5. Kohoron E.I., Walker R.H.S., Monison J., Campbell S., *Am. J. Obstet & Gynec.* 100: 863, 1969.
6. Mehta A.A. *J Obstet & Gynaec Ind.* 37 : 812, 1987.
7. Menon K.K., Sokhi S.K., : *J. Obstet & Gynaec Brit. C. Wealth* 70: 787, 1963.
8. Motwani M.N., Sheth J., Narvekar N.M., *Obstet & Gynec. Ind.* 39 : 364, 1989.
9. Nanavati M.S., Patel D.N. *J. Obstet & Gynec Ind.* 35 : 291, 1985.
10. Rose G., Chapman M., *Brit J of Obstet & Gynec.* 93: 586, 1986.