

Clinical study of Fetomaternal outcome in Placenta Previa

Mona Gandhi¹, Nalini Anand², Aartiba Jadeja³

How to cite this article:

Mona Gandhi, Nalini Anand, Aartiba Jadeja. Clinical study of Fetomaternal outcome in Placenta Previa. Indian J Obstet Gynecol. 2019;7(2):323-326.

¹Associate Professor, ²Professor & HOD, ³Postgraduate Student, Department of Obstetrics and Gynecology, M.P. Shah Medical College, Jamnagar, Gujarat 361008, India.

Corresponding Author: Aartiba Jadeja, Postgraduate student, Department of Obstetrics and Gynecology, M.P. Shah Medical College, Jamnagar, Gujarat 361008, India.

E-mail: rtenigmatic9@gmail.com

Received on 09.03.2019; **Accepted on** 16.04.2019

Abstract

Background: Lower segment placental insertion is called placenta previa. The aim was to study fetal and maternal outcome of placenta previa in pregnancy.

Methods: A prospective study of all the placenta previa cases delivered at the Guru Gobind Singh Hospital done from April 2017 to September 2018 was done. These women were analyzed for their parity, age, gestational age, history of bleeding, duration of hospitalization, need for blood transfusion, period of gestation at delivery, mode of delivery and ICU admissions. For the infants APGAR score, weight of infants, NICU admission, SBR, NMR are noted down.

Conclusions: As the maternal morbidity and perinatal mortality due to placenta previa is preventable, efforts should be made to bring down these rates. This can be achieved by spacing pregnancies, limitation of family size, antenatal registration of all pregnant women, routine use of USG in pregnancy and early referral of high risk pregnant women to tertiary care centres. Awareness should be brought in the rural public to avail the facilities provided by the government. These measures will definitely help in a better outcome for both mother and fetus in all high risk pregnancies. Early delivery, Adherent placenta, Postpartum haemorrhage, Maternal morbidity and mortality due to increased incidence of hemorrhagic shock, increased operative interventions and sepsis. There is higher incidence of perinatal mortality and morbidity due to preterm delivery and its related complications like low birth

weight, birth asphyxia and neonatal sepsis.

Keywords: Placenta previa; Maternal morbidity; Perinatal mortality; Postpartum Haemorrhage.

Introduction

When the placenta is implanted partially or completely in the lower uterine segment it is called placenta previa. About one third of the antepartum haemorrhage belongs to placenta previa. The most characteristic event in placenta previa is painless haemorrhage, which usually does not appear until near the end of the second trimester or after [1]. The classical features of bleeding in placenta previa are sudden onset, painless, apparently causeless and recurrent. It is associated with increased maternal morbidity and mortality due to increased incidence of hemorrhagic shock, increased operative interventions and sepsis. There is higher incidence of perinatal mortality and morbidity due to preterm delivery and its related complications like low birth weight, birth asphyxia and neonatal sepsis. The incidence of placenta previa is around 1 in 300 deliveries [2]. Advancing maternal age increases the risk of placenta previa. At the extremes it is 1 in 1500 for women 19 years of age or younger and it is 1 in 100 for women older than 35 years of age [3]. Multiparity is associated

with previa. Prior cesarean delivery increases the likelihood of placenta previa [4]. Incidence increases from 1.9% with 2 prior cesareans to 4.1% with 3 or more [5]. The simplest, most precise and safest method of placental localization is provided by transabdominal sonography. There is increased incidence of ante partum hemorrhage leading to maternal shock and its consequences, increased incidence of operative interventions, increased incidence of postpartum hemorrhage all posing increased risk of maternal morbidity and mortality [6]. Preterm delivery is the major cause of perinatal death even with expectant management of placenta previa [7]. Although some investigators suggested that congenital malformations are increased with previa, crane and co-workers were the first to confirm this [3]. For reasons that are unclear, in cases of placenta previa fetal anomalies were increased 2.5 fold [8]. Management of placenta previa depends on presentation, gestational age and degree of previa [9]. When mothers life is not at risk, expectant management will improve the outcome [10].

Methods

A prospective study of all the placenta previa cases delivered at the Guru Gobind Singh Hospital done from April 2017 to September 2018 was done. These women were analyzed for their parity, age, gestational age, history of bleeding, duration of hospitalization, need for blood transfusion, period of gestation at delivery, mode of delivery and ICU admissions. For the infants APGAR score, weight of infants, NICU admission, SBR, NMR are noted down. Here, I present a study of 75 cases of placenta previa treated at Department of Obs. & Gynec, Guru Gobind Singh Hospital, Jamnagar.

Results

The following data was obtained from the present study.

Table 1: Distribution of Cases According to the Age

Age distribution	No. of Case	Percentage
< 20	0	0
20 - 24	19	25.33%
25-29	30	40%
30-34	17	22.66%
35-40	08	10.66%
Total	75	100%

Table 2: Types of Placenta Previa

Type	No. of Cases	Percentage
wI	23	30.66%
II Anterior	08	10.66%
II Posterior	06	8%
III	21	28%
IV	17	22.66%
Total	75	100%

Out of 75 cases, 31 cases had minor degree of placenta previa and 44 cases major degree (Table 1,2).

Table 3: Severity of Bleeding

Severity of bleeding	No.	%
No bleeding	14	18.66%
Mild	27	36%
Moderate	34	45.33%
Severe	4	5.33%
Total	75	100%

Most cases (45.33) were presented with moderate amount of bleeding, 36% were presented with mild bleeding. Only 18.66% cases had severe bleeding.

All these types of bleeding increased maternal and fetal morbidity (Table 3).

Table 4: Mode of Delivery

	No. of Cases	Percentage
Vaginal	11	14.66%
LSCS	55	73.33%
Repeat LSCS	09	12%
Total	75	100%

Table 5: Gestational Age at Delivery

Weeks	No. of Cases	Percentage
< 30	2	2.66
30-32	7	9.33
32-34	13	17.33
34-36	10	13.33
> 37	43	57.33
Total	75	100

The average gestational age at delivery is 36.6 weeks. Our study shows that 42% of cases delivered before 37 weeks of gestation (Table 4,5).

Table 6: Incidence of Preterm Babies

Maturation	No. of Cases	Percentage
Term	44	58.66%
Preterm	31	41.33%
Total	75	100%

Incidence of preterm babies in placenta previa cases was around 41.33% (Table 6).

Table 7: Perinatal Outcome

	No. of Cases	Percentage
Live Births	63	84%
Live	54	72%
Early neonatal Death	09	12%
Still Births	12	16%
Total	75	100%

Above Table 7 shows that perinatal outcome in case of placenta previa includes 72% Live births and perinatal loss (early neonatal death i.e. 12% & still births i.e. 16%) was 28% which is significant.

Out of 28%, 12% loss i.e. early neonatal deaths were due to birth asphyxia, septicemia and prematurity complications.

Table 8: Perinatal Outcome in Relation to Maturity

Maturity	Live birth N=54		Still births & early neonatal deaths N=21		Total N=75	
	No.	%	No.	%	No.	%
<37 wks	14	18.66%	16	21.33%	30	40%
>37 wks	40	53.3%	5	6.66%	45	60%
	54	72%	21	28%	75	100%

No. of still births = 12

No. of early neonatal deaths = 9

Above table 8 shows that 60% babies were delivered after 37 completed weeks, while 40% babies were before 37 weeks of gestation.

Table 9: Correlation Between Perinatal Mortality and Type of Placenta Previa

Type	No. of cases	Perinatal deaths	Percentage
Minor	31	13	41.9%
Major	44	8	18.18%
Total	75	21	28%

This table 9 shows that perinatal deaths are more in minor degree of placenta previa.

Table 10: Birth Weight and Perinatal Outcome

Birth weight	No.	PNM cases	%
>2.5 kg	38	05	13.15%
1.5-2.4 kg	30	10	33.33%

Table 11: Perinatal Morbidity and Mode of Delivery

Mode of delivery	No. of babies born	Still births	Neonatal death	Total live births	Percentage of live births
Vaginal	11	4	2	5	45.45%
LSCS	64	8	7	49	76.56%
Total	75	12	9	54	

1.1-1.4 kg	05	04	80%
<= 1 kg	02	02	100%
Total	75	21	

Above table 10 shows that as the birth weight decreases, perinatal mortality rate rises.

Majority cases were between 1.1-2.4 kg birth weight.

This table 11 shows that perinatal outcome is better in abdominal route of delivery i.e. 76.56% babies were live by LSCS route compared to 45.45% when born vaginally.

Table 12: Intra and Post Operative Complications

Sr. no.	Complication	No. of cases	Percentage
1	PPH	7	9.33%
2	Puerperal sepsis	1	1.33%
3	Obstetric hysterectomy	0	0
4	Wound gap	2	2.66%
5	Anaemia	7	9.33%
6	Subinvolution	0	0

This table 12 shows various complications and causes of maternal morbidity, i.e. PPH, puerperal sepsis, Obstetric hysterectomy, Wound gap, Anaemia, Subinvolution.

Table 13: Intraoperative Preventive Measures Taken in Postpartum Haemorrhage

Measures	Cases	%
Uterine Artery Ligation	3	42.85
Uterine Packing	3	42.85
Uterine Packing+ Uterine Artery Ligation	1	14.28
Obstetric Hysterectomy	0	0
Total	7	100

Conclusion

Placenta previa accounts for approximately 0.5% of all deliveries; but still remains major cause of perinatal mortality and morbidity. It is clearly evident from our study that majority of patients were from rural areas with poor educational standards, from lower socioeconomic status and they were unaware of importance of antenatal visits.

It is observed that the patient who had no antenatal checkups and admitted to hospital as an emergency admission had maximum incidence of maternal morbidity and perinatal mortality.

A good antenatal care, early detection of placenta previa by USG and the conservative management including the aggressive use of antepartum blood transfusion in cases of moderate to severe bleeding and early elective termination of pregnancy by judging the fetal maturity along with the development of NICU appears to have great contribution to the dramatic reduction in the perinatal mortality in placenta previa.

Improved transport communications and proper health education by paramedical staff, regarding the MCH services, family planning – to the patient individually, to the public in general is necessary in rural and semiurban areas for better management and prognosis of patients with placenta previa. Women with placenta previa stayed for longer in hospital and had a higher rate of cesarean section, but perinatal mortality remains high and principal cause was prematurity.

The increasing use of CS will result in increase in the incidence of placenta previa and placenta accreta. The linear rise in the incidence of both these conditions with repeated abdominal delivery is an argument for trial of scar whenever possible after one abdominal delivery. Expectant antenatal management will reduce but not totally avoid perinatal mortality. Anticipation of the complications at CS is an important factor in reducing maternal morbidity.

As the maternal morbidity and perinatal mortality due to placenta previa is preventable,

efforts should be made to bring down these rates. This can be achieved by spacing pregnancies, limitation of family size, antenatal registration of all pregnant women, routine use of USG in pregnancy and early referral of high risk pregnant women to tertiary care centres. Awareness should be brought in the rural public to avail the facilities provided by the government.

These measures will definitely help in a better outcome for both mother and fetus in all high risk pregnancies.

References

1. Powell M.C. Magnetic Resonance Imaging in Obstetrics and Gynaecology.
2. Dutta D.C. Text Book of Obstetrics, III, ed., 1993, p.250.
3. Myerscough P.R. Munro Kerr's operative obstetrics X, ed., 2000, P 407.
4. Rudy. E.Sabbagha, Diagnostic ultrasound applied to Obstetrics and Gynaecology III. ed., 1994.p.227.
5. Smiti Nanda. Uterine Artery Ligation for Intractable PPH's. Obs. & Gynaecology Today. 2003 March;8(3): II 7.
6. Cunningham F.G. Williams Obstetrics XXI ed. 2000, P.630.
7. Mudaliar A.L. clinical obstetrics, IX ed., 1990.p.248.
8. Ibid, Cunningham F.G. Williams Obstetrics XXI ed. 2000.p.630.
9. Ratnam S.S. Bhasker Rao K, Arulkumaran, Obstetrics and Gynecology for Post graduate II ed., 1999;1:78.
10. Fernando. Arias Practical guide to High Risk Pregnancy and delivery lied. 2002.p.163.