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A Study on Foetal outcome in Placenta Praevia

Shilpa Modi*, Jayalaxmi Mahur*

Abstract

Introduction: The characteristics of placenta praevia is painless, apparently cause less bleeding from abnormally situated placenta. Often bleeding occurs when the woman is at rest in bed, although it may follow straining, during defaecation, sneezing or coitus. *Methodology:* A thorough history of vaginal bleeding (warning haemorrhage) was taken. Cases with confirmed diagnosis of placenta praevia on ultra-sonography were included in the study. If patients had come in emergency without USG, diagnosis of placenta praevia was confirmed by per vaginal examination or examination of the placenta after the delivery, were included in the study. *Results:* Out of 72 cases (85.72 percent) of C/D, 46(54.76 percent) were live babies. 16(19.06 percent) were dead, 7(8.33 percent) were still born and 3(3.57 percent) were deeply asphyxiated and died within few hours after delivery. *Conclusion:* Perinatal outcome mainly depends on gestational age, birth weight and mode of delivery.

Keywords: Placenta Praevia; Perinatal Mortality; Foetal Outcome.

Associate Professor, Dept. of Obstetrics and Gynaecology, KBNIMS, Kalaburgi.

Jayalaxmi Mahur
Associate Professor,
Dept. of Obstetrics and Gynaecology,
Khaja Banda Nawaz Institute of Medical Sciences (KBNIMS),
Kalaburgi - 585104,
Karnataka.
E-mail:
ramspsmjayachimkode@yahoo.com

Introduction

Despite expectant management, placenta praevia still results in premature delivery of the fetus in many cases. A study has found that over 20 percent of women still have required delivery by 32 weeks gestation, 60 percent by 36 weeks [1]. Significant improvements in neonatal care have resulted in market improvement in the expected survival rates, together with a reduction in overall morbidity for the premature newborn, perinatal mortality rates have steadily fallen from levels of 37percent reported in 1973 to 8.1percent in 1985 [2].

The correlation of APGAR scores and long term outcome is known to be poor and the significance of this finding is therefore uncertain. Long term follow up of infants delivered of women with placenta praevia at all gestation show normal growth and psychomotor development but a small increase in the incidence of neurological abnormalities. This finding is also reported in a study, author further comments that, the premature baby associated with placenta praevia is less likely to be compared with the premature baby not associated with placenta praevia and that the mature baby associated with placenta praevia is no more likely to be abnormal than any mature baby based on developmental assessments in the first year of life [1].

The characteristic clinical feature of placenta praevia is painless vaginal bleeding in later half of pregnancy [3]. Warning haemorrhage (1st bout of bleeding) is seldom severe, but recurrent history of slight bleeding per vagina is commonly obtained from 85 percent [4].

The characteristics of placenta praevia is painless, apparently cause less bleeding from abnormally situated placenta [5]. Often bleeding occurs when the woman is at rest in bed, although it may follow straining, during defaecation, sneezing or coitus [6].

The general condition of the patient depends on the amount of bleeding at the

time of admission and history of previous vaginal examination. Depending on the blood loss, patient may be anaemic with tachycardia and hypotension. In abdominal examination, uterus is usually not tender, malpresentation is common. If it is cephalic presentation, usually head is mobile. FHS is usually present, unless the patient is in exsanguinated condition [3].

Methodology

The study was conducted at Tertiary care hospital and all patients who came with history of painless bleedingper vagina after 28 weeks of gestation were hospitalized.

A thorough history of vaginal bleeding (warning haemorrhage) was taken. Cases with confirmed diagnosisof placenta praevia on ultrasonography were included inthe study. If patients had come in emergency without USG, diagnosis of placenta praevia was confirmed by pervaginal examination or examination of the placenta after the delivery, were included in the study. Cases which presented below 28 weeks of gestation, with confirmed diagnosis of abruptio placenta or local lesions of vaginaand cervix or patients in preterm labour without confirmed placenta praevia were excluded from the study.

Those cases that came with history of painless bleeding per vagina or warning haemorrhage after 28 weeks of gestation were admitted in the hospital. USG was done, iffound to be placenta praevia, with live premature fetus, haemodynamically stable, with no or minimal bleedingand not in established labour were managed expectantly with tocolytics, antibiotics, steroids and bed rest.

Anaemia was defined as haemoglobin < 10gm% orhaematocrit <30%. If found to be anaemic, depending onthe degree of anaemia, correction was done with either blood transfusion or parenteral iron therapy. This expectant management was continued till term or maturity of fetus and later taken for elective C/S. If patient develops severe bout of bleeding then emergency C/S was done irrespective of the maturity. Occasionally if patient is in established labour, with minimal bleed, good general condition and minor degree of placenta previa,vaginal delivery was allowed.

If the patient is admitted in emergency with severe painless bleeding per vaginum without any previous USG, and is in shock, resuscitative measures were carriedout in the form of IV fluids, blood transfusion andantibiotics. Vaginal examination was done in a "double set up" condition, if turns out as placenta praevia, thenemergency C/S were done. Placenta was examined toconfirm the diagnosis whether delivered vaginally or by C/S.

Results

Table 1: Presence / Absence of fetal movements

Fetal movements	No. of cases	Percentage
Present	60	71.43
Absent	24	28.57
Total	84	100

Table 2: Fetal presentation and their incidence

Sl. No.	Presentation	No. of cases	Percentage
1.	Vertex	70	83.33
2.	Breech	10	11.91
3.	Transverse	4	4.76
Total		84	100

Table 3: Fetal heart sound

Sl. No.	FHS	No. of cases	Percentage
1.	Present	56	66.67
2.	Not localized	28	33.33

The above table shows that fetal movements were present in 60 (71.43 percent) cases and the remaining 24 (28.57 percent) cases complained of loss of fetal movements. In placenta praevia there will not be much of fetal compromise unlike abruptio placenta. Since the bleeding source is from the mother, foetus is minimally affected except in cases of vasapraevia , in severe bleeding as in major degree placenta praevia, premature fetus and association of abruption placenta.

The above table shows majority i.e 70 (83.33 percent) had vertex presentation and of these,

majority of them had unengaged head. 10(11.91 percent) had breech presentation and 4(4.67 percent) had transverse lie.one was a case of twin gestation with first baby born by vertex presentation.

The above table shows that FHS was present in 56 (66.67 percent) cases at the time of admission, of which 61.90 percent persisted till delivery and FHS was absent in 28(33.33 percent) of cases.

Table 4: Fetal outcome in placenta praevia

Sl. No.	Fetal	No. of cases	Percentage
1.	Live	52	61.90
2.	Dead	18	21.43
3.	Still birth	11	13.10
4.	Deeply Asphyxiated	3	3.57
Total		84	100

Table 5: Relation between mode of delivery and fetal outcome

Sl. No.	Fetal	C/D		Vaginal deliveries	
		Number	Percentage	Number	Percentage
1.	Live	46	54.76	6	7.14
2.	Dead	16	19.06	2	2.38
3.	Still born	7	8.33	4	4.76
4.	Deeply asphyxiated	3	3.57	0	0
Total		72	85.72	12	14.28

Table 6: Comparative study of fetal presentation

Sl. No.	Presentation	Carlyle[7]	Bhaskar Rao[8]	Rani P.R[9]	Present study
1.	Vertex	71 percent	67.3 percent	80 percent	83.33 percent
2.	Breech	11 percent	23.3 percent	7 percent	11.91 percent
3.	Transverse	17 percent	8.6 percent	12 percent	4.76 percent

The above table shows that out of 84 cases, 52 (61.90 percent) babies were live at the time of delivery, out of which 5 died within the discharge period. 18 (21.43 percent) were IUD, 11(13.10 percent) were still born and 3(3.57 percent) were deeply asphyxiated, and died within few hours.

Out of 72 cases (85.72 percent) of C/D, 46(54.76 percent) were live babies. 16 (19.06 percent) were dead, 7(8.33 percent) were still born and 3(3.57 percent) were deeply asphyxiated and died within few hours after delivery. Out of the 12(14.28 percent) cases of vaginal delivery, 6(7.14 percent) babies were alive, 2 (2.38 percent) were dead and 4 (4.76 percent) were still born.

PNM in C/D – 31 percent

PNM in vaginal delivery – 7 percent

Discussion

Macafee, in his study found that there were 67 percent vertex, 20 percent transverse lie and 13 percent breech presentation with placenta praevia [10].

The above table shows the incidence of different fetalpresentations, in different studies.The finding in our study is comparable with that of in Rani's study.

Though the incidence of malpresentation is found to be more common in placenta praevia, the incidence in our study was only 16.67 percent. Out of 83.33 percent with vertex presentation, most of them had unengaged head.

It has been suggested that the greatest single factor causing neonatal death is prematurity, which leads to RDS, It is this factor which has been diminished by the use of expectant management [6].

Table 7: Perinatal mortality in different studies

Authors	Menon[5]	Das[11]	Bhaskar Rao[8]	Ananth CV[12]	present study
PNM in percent	34	8.8	35.5	10.7	38

Women with placenta praevia were 5.5 times more likely to have still born babies [(24)]. At 28-36 weeks babies born to women with placenta praevia weight on average 210 grams lower in the risk of death was lower among preterm babies in placenta praevia. For babies born after 37 weeks the mortality rate was found to be higher[12]. The neonatal mortality rate was 4.3 fold greater in placenta praevia.

Mcshane in their study attributed RDS to be the chief reason for increased neonatal mortality rate[2]. But with above findings Ananth CV recommends unless there is compelling reason (documented

immaturity) terminating such pregnancies must be considered seriously [12].

Conclusion

In our study PNM rate was found to be very high at 34.52percent. In 32 babies delivered before 32weeks, PNM rate was 78.13 percent. Even at term PNM rate was 25 percent , as FHS was not located in 6 cases on admission itself. With C/S, PNM rate was 31 percent and in vaginal delivery, it was 7percent. With respect to birth weight, PNM rate in babies weighing <1.5Kg was 95 percent and those weighing >2Kg was 21.96 percent. Prematurity with low birth weight contributed to majority of perinatal deaths. Hence, expectant management plays an important role.

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