

Clinical Profile of Patients Attending Tertiary Care Center with Placenta Praevia

Jayalaxmi Mahur*, Shilpa Modi*

Abstract

Introduction: The management of women with bleeding from a placenta praevia will depend on 2 main factors, the degree of haemorrhage and the fetal maturity at the time of hemorrhage. Absolute indications for delivery include, bleeding of any type at fetal maturity, fetal distress at viable gestations and persistent hemorrhage causing maternal hemodynamic instability at any stage in pregnancy. *Methodology:* Those cases that came with history of painless bleeding per vagina or warning hemorrhage after 28 weeks of gestation were admitted in the hospital. USG was done, if found to be placenta praevia, with live premature fetus, hemodynamically stable, with no or minimal bleeding and not in established labour were managed expectantly with tocolytics, antibiotics, steroids and bed rest. *Results:* table shows 33 (39.29 percent) cases had type II placenta praevia out of which 18 (21.43 percent) cases had type II anterior placenta praevia and 15 (17.86 percent) had type II posterior placenta praevia. 20 (23.80 percent) cases had grade III placenta praevia, 18 (21.43 percent) cases had type I placenta praevia, remaining 13 (15.48 percent) cases had central placenta praevia. *Conclusion:* Majority of patients with major degree placenta praevia were managed with C/S except 1 case which delivered vaginally.

Keywords: Placenta Praevia; Management; Bleeding Per Vagina.

Introduction

Pathogenesis of placenta praevia has not yet been well established. As a result of some local aberration in uterine blood supply, the distinction between the areas of chorionic frondosum & chorion leave does not occur in the normal situation and, the developing ovum comes to derive its nourishment, from the lower region of the uterus than is customary. This could be due to high parity or disease [1]. Local inadequacy of decidua in LUS predisposes to morbid adhesion, which results in third stage complications [2]. The rate of placenta accreta in Praevia cases varied between 1.18 percent and 9.3 percent, an average of 6.3 percent. ACOG warns of a rate of Accreta of 40 percent in patients with more than 2 caesarean sections [3].

Later it was proposed that placenta praevia could develop after, implantation in a poorly vascularised UUS. The placenta thus spreads over a larger area to function normally, on occasion extending into the LUS. Due to increased vascularity, LUS and cervix becomes soft and more friable. In some cases, placenta is thin with large surface area. There is often a tongue shaped extension from the main placental mass. Extensive areas of degeneration with infarction and calcification may be evident. Succenturate lobes are common, leading support to this concept [4].

Abnormalities in placental formation, cord insertion & vessel distribution are all more common. All varieties of placental malformations are seen. Even abnormalities

*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:
ramspmjayachimkode@
yahoo.com

of cord and umbilical vessels like battle dore insertion and velamentous distribution of the vessels are seen [5].

The management of a women with bleeding from a placenta praevia will depend on 2 main factors, the degree of haemorrhage and the fetal maturity at the time of haemorrhage. Absolute indications for delivery include, bleeding of any type at fetal maturity, fetal distress at viable gestations and persistent haemorrhage causing maternal haemodynamic instability at any stage in pregnancy [6].

Initial management involves rapid assessment of maternal cardiovascular status and the rate of continuing blood loss, followed by fetal assessment. IV access with a 16 Gauge cannula should be established in all women, regardless of the degree of bleeding or vital observations. Baseline investigations, including haemoglobin estimation, blood cross matching and in women with heavy bleeding, clotting studies are indicated. Fluid replacement with crystalloid is appropriate initially; this may be supplemented with a calcified in the presence of heavier blood loss. In women requiring delivery because of heavy bleeding, transfusion of cross matched blood should begin as soon as possible, because further severe haemorrhage at the time of C/S is likely [6].

Bleeding from placenta praevia is usually associated with uterine activity. A vicious cycle occurs where small changes in cervical effacement and dilatation, which occurs as a physiological phenomenon in many women in the third trimester, precipitate placental bleeding. This in turn stimulates the release of Prostaglandins from the lower segment decidua and thereby the onset of contraction, which will aggravate the amount of bleeding by exerting

further shearing forces on the placenta at the level of the cervix [6]. The initial uterine activity, is usually not perceived by woman herself [7].

Methodology

All patients who came with history of painless bleeding per vagina after 28 weeks of gestation were hospitalized. A thorough history of vaginal bleeding (warning haemorrhage) was taken. Cases with confirmed diagnosis of placenta praevia on ultrasonography 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. Cases which presented below 28 weeks of gestation, with confirmed diagnosis of abruptio placenta or local lesions of vagina and 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, if found to be placenta praevia, with live premature fetus, haemodynamically stable, with no or minimal bleeding and not in established labour were managed expectantly with tocolytics, antibiotics, steroids and bed rest. If the patient is admitted in emergency with severe painless bleeding per vaginam without any previous USG, and is in shock, resuscitative measures were carried out in the form of IV fluids, blood transfusion and antibiotics. Vaginal examination was done in a "double set up" condition, if turns out as placenta praevia, then emergency C/S was done. Placenta was examined to confirm the diagnosis whether delivered vaginally or by C/S.

Results

Table 1: Relationship between bleeding PV and versus gestational age

Sl. No.	Gestational age	No. of cases	Percentage
1.	28-32	24	28.58
2	33-36	30	35.71
3	> 36	30	35.71
Total		84	100

Table 2: Previous Obstetric history in placenta praevia

Sl. No.	Previous Obstetric history	No. of cases	Percentage
1	Abortion	13	15.48
	I trimester	8	9.53
	II trimester	5	5.96
2	Previous H/o C/S	11	13.10
3	Previous H/o PP	1	1.19
4	No abnormality	40	47.62
5	Primigravidae	19	22.61
Total		84	100

Table 3: General condition on admission

Sl.No.	General condition	No. of patients	Percentage
1	Good	70	83.33
2.	Bad	14	16.67

Table 4: Pervaginal examination in placenta praevia

Sl. No.	PV Examination	No. of cases	Percentage
1.	PV not done	52	61.91
2.	PV done, placenta not felt	9	10.79
3	PV done, placenta felt	22	26.19
4	Placenta seen through the OS	1	1.19
Total		84	100

Table 5: Incidence of anaemia in placenta praevia

Sl no.	Hb in gm%	No. of cases	Percentage
1.	>10	13	15.48
2.	8.5 - 9.9	26	30.95
3.	6.0 - 8.4	40	47.62
4.	< 6.0	5	5.95
Total		84	100

Table 6: Incidence of different types of placenta praevia

Sl no.	Type of Placenta Praevia	No. of cases	Percentage
1.	I	18	21.43
2.	IIA	18	21.43
3.	IIP	15	17.86
4.	III	20	23.80
5.	IV(central)	13	15.48
Total		84	100

Table 7: Management of placenta praevia

Sl no.	Type of management	No. of cases	Percentage
1.	Expectant	10	11.90
2.	Active	74	88.10
Total		84	100

In the present study, clinical manifestation of placenta praevia occurred before term in 54(64.29 percent) cases, out of which 24(28.58 percent) were between 28-32 weeks and 30(35.71 percent) were between 33-36 weeks and 30(35.71 percent) cases occurred after 36 weeks.

In placenta praevia bleeding episodes in third trimester is the main clinical feature. It is inevitable, painless, recurrent and life threatening if profuse.

The above table shows 13(15.48 percent) cases had abortions in their previous obstetric history of which 8(9.53 percent) cases aborted in first trimester and, check curettage was done in 7 cases. 5(5.96 percent) cases had second trimester abortions. Out of these 13 cases, 1 case had septic abortion and presented with the rupture uterus and underwent subtotal hysterectomy.

11(13.10 percent) cases had history of previous C/S, 1(1.19 percent) case had undergone C/S for placenta praevia in first pregnancy. 3(3.57 percent) cases had previous history of both abortions and

C/S.

The above table shows, in majority 70(83.33 percent) cases, the general condition was satisfactory. In the remaining 14(16.67 percent) general condition was bad, immediate resuscitative measures were carried out with IV fluids, blood transfusion and antibiotics. All the 14 recovered well, from shock.

The above table shows that in majority of cases 52 (61.91 percent), especially with the USG report showing placenta praevia PV examination was not done.

In the remaining 32 cases, which were emergency admissions without USG reports and non availability of emergency USG in the labour room, PV examination was done with double setup. Out of 32 cases placenta was felt on examination in 22(26.19 percent) cases, placenta was seen through the os in 1 (1.19 percent) case and placenta was not felt in 9(10.71 percent) cases.

Most of the patients with USG report were taken for emergency LSCS and if labour was established

with diagnosed lowlying placenta, vaginal delivery was allowed. 9(10.71 percent) cases where placenta was not felt was allowed for vaginal delivery. The remaining cases were taken for emergency C/S.

The above table shows that only 13(15.48 percent) had Hb> 10 g percent, 26(30.95 percent) cases had mild anaemia. But majority of the cases had moderate to severe anaemia. 40(47.62 percent) cases had moderate anaemia (6.0–8.4 g percent) and 5(5.95 percent) cases had severe anaemia (< 6 g percent).

Minor degree – 36(42.86 percent) type I and type II anterior

Major degree – 48(57.14 percent) type II posterior, type III and type IV.

The above table shows 33(39.29 percent) cases had type II placenta praevia out of which 18(21.43 percent) cases had type II anterior placenta praevia and 15(17.86 percent) had type II posterior placenta praevia. 20(23.80 percent) cases had grade III placenta praevia, 18(21.43 percent) cases had type I placenta praevia, remaining 13(15.48 percent) cases had central placenta praevia.

The above table shows that, out of 84 cases, 10(11.90 percent) cases were managed expectantly and 74(88.10 percent) cases were managed actively.

Majority(74 -88.10 percent) of cases were managed actively as,they were not fit for expectant management. 14(16.67 percent)patients were in hypovoluemic shock,11 cases (13.10 percent) were in established labour, 26(30.95 percent) cases had profuse bleeding, 9(10.71 percent) had IUD and fetal maturity with or without bleeding on admission was seen in 24 (28.57 percent) cases. Of these two cases were of rupture uterus who underwent subtotal hysterectomy

In our study 10 cases (11.90 percent) were managed on expectant line, as they were not in labour, with no active bleeding on admission, with a live preterm foetus without maternal or foetal distress. These patient were admitted in the hospital, started on antibiotics and tocolytics with correction of anaemia which was done with blood transfusion or iron preparation based on the severity of anaemia.

Out of the 10 cases, 3 cases had repeated small bleeds on 3 occassions during their stay of 1 week. 9 (10.71 percent) cases underwent C/S, of which 8(9.52 percent) underwent emergency C/S as they developed severe bout of bleeding and 1(1.19 percent) underwent elective C/S after 2 weeks of expectant management.

1(1.19 percent) case went into spontaneous labour on 2nd day and delivered a dead baby APGAR of all the babies born by C/S were good.

Discussion

In our study maximum incidence(64.29percent) of bleeding PV occurred between 28-36 weeks,which is similar to the finding in menon's study [8].

Almost four decades ago Bender first observed an increased frequency of placenta praevia with uterine scarring. There is a strong association between having previous C/S, spontaneous or induced abortion and the subsequent development of placenta praevia. The risk increases with number of prior C/D [9]. A retrospective study of 292 cases of placenta praevia showed an incidence of 0.26 percent in an unscarred uterus, 0.65 percent after C/S and 10 percent with more than two C/S [10]. Damage to the endometrial and myometrial uterine lining can predispose to low implantation of the placenta in the

Table 8: Comparative study of bleeding PV versus Gestational age

Sl. No.	Duration of pregnancy	Menon ⁸	Present study
1	< 28	10.3	---
2	28-32	21.4	28.58
3	32-36	38.5	35.71
4	> 36	35.4	35.71

Table 9: Comparative study of expectant management

Authors	Macafee ¹⁴	Hemmadi ¹⁵	Present study
Percentage	52.5	46.67	11.90

uterus [9].

In a study, the incidence of placenta praevia was directly related to the number of previous C/S. 50 percent of the cases had atleast one previous curettage, 24 percent had two or more. Also there is increased incidence of placenta accreta in women with placenta praevia (9.3 percent) [11].

In his study, stated prior C/S was present in 17.4 percent, spontaneous abortion 39 percent, induced abortion 10.1 percent, prior uterine surgery 2.9 percent [12].

Recurrance rate of placenta praevia following prior history of placenta praevia is 4 to 8 percent. In our study, only one case (1.19 percent) had history of

placenta praevia.

In Macafee series, 46 percent belonged to minor degree placenta praevia and 54 percent belongs to major degree placenta praevia which is well compared with the present study [13].

Knowing the type of placenta praevia is very important which determines, route of delivery, maternal and perinatal outcome and onset of haemorrhage

In Macafee series of 174 cases, 52.5 percent cases were managed expectantly and achieved a good maternal and perinatal outcome. Similarly in Hemmadi study 46.67 percent cases were managed expectantly. In our study only 11.90 percent of cases were managed expectantly as patients reached very late and were unfit for expectant management. In the cases managed expectantly maternal and perinatal outcome was good.

Conclusion

The management in placenta praevia is mainly influenced by the degree of placenta praevia and also the amount of bleed and gestational age

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