

A study of fetomaternal outcome in placenta previa in tertiary care centre, Sangli

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Abstract

Background: Placenta previa is condition in which placenta is implanted partially or totally over the lower uterine segment. High risk for placenta previa is multiparity, presence of previous uterine scar, curettage, placenta previa and, multiple pregnancies. **Aims and Objectives:** The study aims to assess percentage of patients with placenta previa, to evaluate the degrees of placenta previa and its fetomaternal outcome. **Study Design:** This is a descriptive record-based study. **Materials and Methods:** Study was carried out in obstetrics ward Bharati Vidyapeeth (deemed to be) University medical College and Hospital, Sangli. A total of 34 cases were taken in study as they were the diagnosed cases of placenta previa. All the cases of placenta previa in a duration of 2 years (June 2018 to May 2020) are studied. Evaluation was done based on the detailed history, examination and ultrasound findings. Degree of placenta previa in each case, its management and fetomaternal outcome studied. Data was collected using predesigned, pretested questionnaire and from hospital records. The data obtained was added in the tables and appropriate statistical tests were applied. **Result:** Out of total 1156 deliveries in 2yrs from June 2018 to May 2020, 34 (2.9%) were diagnosed cases of placenta previa. Only 8% of the cases required obstetric hysterectomy and Out of all cases of placenta previa 64.7% were multiparous. Maximum cases that is 35.5% were type 3 followed by type 2 and 4 with 29.4% each and least of type 1 with 5.8%. Perinatal outcome was calculated as live births being 61.7% and 29.4% were admitted in NICU and rest i.e. 8.9% dead. **Conclusion:** Placenta previa is high risk pregnancy and associated with increased maternal, neonatal morbidity and mortality. Hence early diagnosis and management in tertiary care centre to prevent complications is necessary. In mother it causes excessive haemorrhage for which blood transfusions and in some cases obstetric hysterectomy also required.

Key Words: placenta previa, lower uterine segment, fetomaternal outcome.

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INTRODUCTION

Placenta previa is defined as a placenta that is in the lower uterine segment or partially or completely covering the internal os. It accounts for 1/3rd cases of antepartum

haemorrhage.¹ Prevalence of placenta previa is 4 per 1000 deliveries. There is a high risk of postpartum haemorrhage in cases of placenta previa. There is increased maternal and perinatal mortality and morbidity due to placenta previa.^{2,3} Exact cause of placenta previa is not known but there are multiple risk factors for placenta previa. Age, parity, hyperplacentalosis, previous uterine scar, multiple pregnancy, malpresentations, uterine anomalies, placental and cord abnormalities and assisted reproductive techniques are some of the common risk factors for placenta previa.⁴ Mothers with placenta praevia have a ten fold risk of reoccurrence in a subsequent pregnancy. Most common presentation of placenta previa is recurrent, profuse, painless, pervaginal bleeding before the onset of labour. Placenta previa is a major cause of maternal morbidity and mortality because of the associated massive

ante-partum and intra-partum hemorrhage.⁵ This study is conducted to know the various clinical presentations and foeto-maternal outcome in cases of placenta previa in a teaching hospital. Placenta previa invading the uterine wall becomes morbidly adherent placenta (MAP) in form of placenta accrete, increta and percreta. In the women who delivered by caesarean section or any abdominal surgery in past, there is an increase incidence of morbidly adherent placenta. MAP is a life threatening condition which is 90% associated with postpartum hemorrhage, disseminated intravascular coagulopathy (DIC), Anemia and multiple organ failure.⁶

AIMS AND OBJECTIVES

Aim-To study of fetomaternal outcome in placenta previa in tertiary care hospital, Sangli.

Objectives-

1. To assess percentage of patients with placenta previa.
2. To evaluate the types and degrees of placenta previa
3. To study the fetomaternal outcome.

MATERIALS AND METHODS

Present retrospective record based study was conducted in the department of Obstetrics and Gynaecology at Bharati Hospital (Deemed To Be) University Medical College and Hospital Sangli, India during the period of June 2018 to May 2020. 34 diagnosed cases of placenta previa were included in this study. A questionnaire consisting of obstetric history, medical history, family history, maternal outcome and neonatal outcome was made to meet the requirement of the study. The study was approved by BVD (To Be) U, MCH Ethical Review Committee with IEC approval letter number BV (DU) MCandH/Sangli/IEC/378/19. All patients were managed according to the obstetric protocol of the department. Obstetric history including the parity, previous mode of delivery and previous history of placenta previa was taken into account. Neonatal account like maturity and NICU admission were also taken into account. Abdominal examination was done in all the patients. Per vaginal examination was not done as it is contraindicated. Ultrasound done confirmed the diagnosis of placenta previa. Blood grouping and crossmatching was done in all the patients as blood transfusion is required in most of the patients of placenta previa. Blood transfusions required and management strategies studied from the data. Data obtained was categorised according to the tables. Results were analysed and tabulated in the form of numbers and percentage.

RESULTS

A total of 1156 deliveries in 2yrs from June 2018 to May 2020 took place. Out of which,34 (2.9%)were diagnosed cases of placenta previa.

Table1-Distribution according to age-It shows that the majority of patients were in the age group of 18 to 30years i.e 85%(29 out of 34).15% of the patients were more than 30 years od age.

Table 1:

Variable	Number of patients	Percentage
18 to 30yrs	29	85.30
>30yrs	5	14.70

Table 2: Obstetric variables

Parity	Number of Patients	Percentage
Nulliparous	12	35.3
Multiparous	22	64.7
Gestational age		
<37weeks	22	64.7
>= 37weeks	12	35.3

Table 2 shows that out of 34,64.7% (22) were multiparous and 35.3%(12) were nulliparous. There is increasing incidence in multiparous. Majority of the patients-64.7% were preterm and remaining were full term.

Table 3: Management done

Blood Transfusion	Number of Patients	Percentage
1PCV	15	44.11
2PCV	14	41.18
>/=3PCV	5	14.71
Obstetric Hysterectomy		
Required	3	8.82
Not required	31	91.18

As there is excessive blood loss in cases of placenta previa,44.11%required only 1 PCV transfusion,41.18% required 2 PCV transfusion and 14.71% required equal to or more than 3 PCV transfusion. Out of 34, only 8.82% required hysterectomy and remaning 91.18 % were managed with measures other than hysterectomy which included B lynch sutures and Uterine Artery Ligation.

Table 4: Degree of placenta previa

Degree	Number of patients	Percentage
1	2	5.8
2	10	29.4
3	12	35.4
4	10	29.4

Maximum patients 35.4 % were of Type 3 placenta previa i.e placenta extending upto internal os but not covering it. Least were of type 1-5.8% ,the type in which placenta is in lower segment.

Table 5: Neonatal outcome

Neonatal outcome	Number of babies	percentage
Live	21	61.76
Dead	3	8.82
NICU	10	29.42

Out of all births of placenta previa, 61.76% were live births. These babies were with their mother and healthy. 29.42% were admitted in NICU due to distress or prematurity. 8.82% had bad fetal outcome as the babies didn't survive. They were still births, intrauterine death or died shortly after birth.

DISCUSSION

This study mainly studied the prevalence of placenta previa, different types of placenta previa and the fetomaternal outcome. Increasing age and number of pregnancies have been shown to be an important risk factor for placenta previa.¹¹ Out of total 1156 deliveries over a period of 2 years in a tertiary care centre, the prevalence of placenta previa was 2.9% as compared to worldwide prevalence of 0.2 to 4.84%.⁹ Antepartum and postpartum haemorrhage, caesarean hysterectomy and preterm birth are main morbidities in cases of placenta previa when compared to normally sited placenta.¹⁰ In our study Placenta previa was common in the age group of 18 to 29 years. Similar results were obtained in study by Sarojini *et al.* which showed 67% patients in this age group.⁷ Our study showed that placenta previa is common with multiparity than nulliparity and has showed same results in other study by Weiner *et al.*¹² 64.7% were multiparous and remaining were nulliparous. In our study 64.7% were preterm and 35.3% were term. Results comparable were with study by Pushpa *et al.* i.e. 74.99% were preterm and term were 25%.¹³ In our study majority were type 2,3,4 placenta previa i.e. 29.4%, 35.4%, 29.4% respectively. Similar results were obtained by Pushpa *et al.* in which type 2,3,4 were 27.27%, 34.09%, 14.77% respectively.¹³ Placenta previa leads to severe antepartum and postpartum hemorrhage. This blood loss is managed by blood transfusions. Blood loss depends on the type of placenta previa. As maximum number of patients had Type 2,3,4 of placenta previa, blood loss was more and 44% patients required 1 PCV, 41% required 2 PCV to be transfused and similar results shown in studies by Manohar *et al.*^{8,13} When the bleeding was not controlled, at first bilateral uterine artery ligation was done. When in spite of that bleeding was not controlled then B lynch sutures were taken. When all the conservative measures failed, hysterectomy was performed. Only 3 patients out of 34 required peripartum hysterectomy and all others were managed conservatively. Similar results were obtained in study by Pushpa *et al.* in which 7 patients underwent hysterectomy out of 88 patients i.e. 7.9%.¹³ In our study, 64.7% were preterm but only 29.4% were admitted to NICU for fetal maturity, distress and low birth weight. 61.7% were handed over to mothers after delivery. High incidence of prematurity in this study may be because of greater incidence of emergency cases who came to hospital with bleeding or in

labour. Study by Sarojini *et al.* showed that 30.4% of babies required NICU admission which is similar to our study.⁷ There was no maternal mortality during the study period. However 3 patients with central placenta previa had intractable atonic PPH not controlled by medical and conservative surgeries requiring obstetric hysterectomy. NO maternal mortality is due to early and accurate diagnosis of placenta previa by Ultrasound and Doppler and increased availability of medical care by senior obstetrician, blood transfusion and ICU facilities.

CONCLUSION

Antepartum haemorrhage in 3rd trimester is grave obstetric emergency. Managing a case of placenta previa is challenging for an obstetrician as there is increased risk of maternal and perinatal mortality and morbidity. Thus a good and timely antenatal care with early diagnosis, correction of anemia in 1st and 2nd trimester, ultrasonography and antenatal care in a tertiary care facilities were the blood transfusion facilities and ICU care is available will decrease the perinatal and maternal complications.

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