

The Study of Fetomaternal Outcome in Cases of Placenta Previa

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Abstract

Aim: The aim of the study was to find out the fetomaternal outcome in cases of placenta previa. **Material & methods:** A Prospective Study included 100 cases of placenta previa diagnosed ultrasonographically beyond 28 weeks of gestation complicated by placenta previa and the total number of deliveries control and out of them number of patients presented with placenta previa the incidence, maternal & fetal outcome in Obs & Gync department, PDU Medical College, Rajkot. **Results:** In the present study, 67 patients belonged to the 24-28 age groups. 69 patients belonged to the lower group and rest of the patients belonged to middle group. Majority of the patients included in the study belonged to urban area. 76 women were housewives in the study. All the women in the study were illiterate. 89 patients had LSCS delivery. 65 women had one episode of bleeding followed by 33 women having two episodes. In 82 patients, there were no complications. In the present study, 8 babies expired.

1. Introduction

Placenta previa is described as when the placenta is partially or fully implanted in the lower uterine segment, overlying or reaching internal cervical os.¹ Placenta previa is responsible for about one-third of all antepartum hemorrhage cases.² “One of the leading causes of maternal morbidity and mortality globally is obstetric hemorrhage. 0.3% to 0.5% or One occurrence of placenta previa, occurs every 300 to 400 deliveries”.³ Depending on how far the placenta extends in the lower portion, there are four different forms of placenta previa. For example, Type 1 - low lying, Type 2 - marginal, Type 3 is complete or central, and Type 4 is partial or incomplete central. Clinically, they are separated into the following two grades: Type 1 and Type 2 anterior are of a mild degree. Type 2 posterior, Type

3, and Type 4 are of major degree. Because it discourages head engagement more frequently and the placenta is likely to be squeezed during labor, decreasing placental perfusion, posterior placenta previa is slightly more prevalent and more harmful. A placenta previa is more likely by 22% due to a number of circumstances, including increasing maternal age, multiparity, prior abortions, a history of placenta previa, and an increase in the frequency of previous caesarean deliveries.⁴

It may be connected to placenta increta, accreta, or percreta. Transabdominal sonography is the simplest, most accurate, and safest method of placental localisation.⁵ In the late second trimester and beyond, patients with placenta previa typically appear with painless, causeless bleeding. Some patients' severe bleeding causes maternal shock,

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which is a serious disease to treat. Therefore, both postpartum bleeding and the rate of surgical operations have increased. As a result, the risk of maternal morbidity and mortality is raised.⁶ Even with expectant care of placenta previa, preterm delivery is the primary factor in perinatal mortality.⁷ "Management of placenta previa depends on presentation, gestational age and degree of previa".⁸⁻¹⁰ Expectant treatment will enhance the outcome of the fetus when the mother's life is not in danger.¹¹

If detected antenatally, the morbidity associated with MAP and placenta previa can be considerably decreased. This will guarantee that a hospital is appropriately set up with a multidisciplinary approach and that facilities for blood transfusion, anesthesia, the intensive care unit, and neonatal care are available. This is quite difficult in countries with limited resources because the majority of the population lives in the periphery, where there aren't any operating rooms or blood transfusion facilities. Studies that are conducted repeatedly and focus on the underlying causes of antepartum and postpartum hemorrhage will help to raise awareness among government officials and enhance facilities at the primary, secondary, and tertiary levels.

Thus, the aim of the study was to find out the fetomaternal outcome in cases of placenta previa.

2. Material & Methods

A prospective study at the Obs & Gynec department of PDU Medical College in Rajkot included 100 cases of placenta previa diagnosed by ultrasound beyond 28 weeks of gestation complicated by placenta previa, the total number of deliveries under control, and the number of patients who presented with placenta previa the incidence, maternal & fetal outcome in those cases.

Inclusion criteria

- Regardless of age, parity, socioeconomic level, or demographic status, all patients diagnosed with placenta previa by ultrasonography and having gestational ages more than or equivalent to 28 weeks were included in this study

- Registered and urgent cases both are comprised

- Some patients complained of vaginal bleeding at full pregnancy when they arrived.

- A routine sonography examination is how some people are diagnosed during the prenatal period.

Exclusion criteria

- Cases with gestational ages below 28 weeks and those with other antepartum hemorrhage causes are eliminated.

A thorough investigation was conducted, recording the patient's age, parity, gestational age, and clinical characteristics as well as a full history of the current and prior pregnancies, the stage of gestation at which placenta previa was discovered, the patient's history of warning bleeding, and other factors. The number of days spent in the hospital, the necessity for blood transfusions, the gestational age at delivery, the mode of delivery (vaginal or caesarean), and any procedures used to halt or prevent bleeding, such as hysterectomy, cervico-isthmus stitching, or uterine artery ligation, are noted. With regard to the emergence of hypovolemic shock, DIC, anemia, acute renal injury, septicemia, and maternal fatalities, a study of maternal mortality and morbidity was conducted. Additionally, information on delivery (including the way the fetus was presented, the technique of delivery, and the gestational age at delivery), neonatal (birth weight, NICU admission) were also collected.

Data Collection Procedure

Total number of cases who have diagnosed as case of placenta previa at Department of OBS & GYNEC, PDU Medical College, and Rajkot. Patient Information Sheet was given along with written consent paper includes complication related to placenta previa. Brief history regarding patient information index, contact details, menstrual history, past menstrual history, obstetrics history, number of bleeding episode, mode of delivery, intrapartum and postpartum complication, blood transfusion, baby status, mother & neonate follow up till discharge.

3. Results

Table 1: Patient details

AGE	No. of Patients
18-23	17
24-28	67
29-33	16
34-38	0
39-43	0
Socioeconomic class	
Lower	69
Middle	31
Area	
Rural	15
Urban	85
Occupation	
Labourer	24
Housewife	76
Education	
Literate	0
Illiterate	100

In the present study, 67 patients belonged to the 24-28 age groups. 69 patients belonged to the lower group and rest of the patients belonged to middle group. Majority of the patients included in the study belonged to urban area. 76 women were housewives in the study. All the women in the study were illiterate.

Table 2: Other details of the patients

Types of delivery	N
Vaginal Preterm	6
Vaginal Induced	1
Vaginal Fullterm	4
LSCS	89
Bleeding episodes	
No Episode	1
one	65
Two	33
Three	1
Delivery status	
Booked	48
Unbooked	52

89 patients had LSCS delivery. 65 women had one episode of bleeding followed by 33 women having two episodes. 48 women were booked.

Table 3: Complications, baby status

Complications	N
Complicated	18
Non-Complicated	82
Baby status	

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Live	92
Expired	8

In 82 patients, there were no complications. In the present study, 8 babies expired.

4. Discussion

0.3-1.5% of pregnancies are complicated by placenta previa, which can cause serious maternal morbidity or even death. Preterm birth, low birth weight, and perinatal death are other outcomes with poor neonatal outcomes that are related to it.¹² When placenta previa invades the uterine wall, it develops into placenta accrete, increta, and percreta, which are all examples of morbidly adherent placentas (MAP). Death, disseminated intravascular coagulation, and life-threatening bleeding are all possible outcomes of MAP.^{13,14} In the past few decades, the incidence of placenta previa and MAP has dramatically increased as a result of the rising caesarean section trend.^{15,16}

Incidence of MAP increased from 1 in 30,000 pregnancies in the 1960s to 1:533 in the last several decades.¹⁷ This has been linked to a rise in the rate of cesarean sections globally.¹⁸ Since young patients with MAP not only suffer from severe morbidity from severe postpartum hemorrhage, massive blood transfusions, DIC, and urinary bladder injury, but also suffer from loss of fertility due to hysterectomy at a young age, serious efforts should be made to reduce caesarean sections at all levels. Currently, 47% of peripartum hysterectomies are caused by MAP.¹⁹ Placenta position plays a significant role in predicting unfavorable pregnancy outcomes. Hemorrhage (both antepartum and peripartum), anemia, sepsis, and placenta accreta are the main causes of mortality and morbidity in placenta previa. High incidence of postpartum bleeding is connected with pregnancies with low-lying placentas. Complete previa and a history of previous caesarean sections raise the risk of maternal morbidity because they increase the likelihood of major hemorrhaging, placenta accretion, and hysterectomy.

When compared to cases of placenta previa, the main morbidities include ante and postpartum hemorrhage, caesarean hysterectomy, and preterm birth.^{20,21} As just two patients died, we had a low case fatality rate of 2%. As 48% of our patients were scheduled, antenatal care was crucial to the patients' improved outcomes. It enabled timely blood

preparation, multidisciplinary team participation, and minimal case fatality. A study from Lahore revealed similar findings with significant morbidity and low fatality, but the study's patient population was smaller.²² Tanzania and India have recorded high rates of maternal death, primarily because of inadequate prenatal care.²³

Despite a significant decline in placenta previa-related maternal mortality rates throughout the second half of the 20th century, placenta previa continues to be a major contributor to perinatal morbidity and mortality. The current study makes it abundantly clear that most of our patients came from rural areas with low educational standards, low socioeconomic level, and no awareness of the significance of antenatal checkups. It has been noted that maternal morbidity and perinatal mortality were most common in patients who had no antepartum checkups and were admitted as an emergency. For the better management and prognosis of patients with placenta previa, better transport communication and appropriate health education by paramedical staff regarding MCH services, family planning, to the patient individually, to the public generally, is necessary in rural and semi-urban areas. A consultant obstetrician and anesthesiologist should be present in the delivery room as a minimum necessity during a planned procedure for placenta previa. When a crisis occurs, consultant staff should be informed and should show up as quickly as they can.

5. Conclusion

One of the most significant obstetric crises is placenta previa. Risk factors for placenta previa include multiple pregnancies, prior caesarean sections, and prior abortions that result in serious maternal complications that have a negative impact on the fetomaternal outcome. Patient from mortality can be avoided with early transabdominal sonography placenta previa identification, routine antenatal check-ups, anemia treatment, and patient education regarding her risk of problems during birth.

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