

The consequences of vaginal bleeding during the third trimester at tertiary care facility

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Background : In the past thirty years, there has been a significant decrease in maternal deaths resulting from antepartum hemorrhage (APH), likely due to advancements in obstetric care and blood transfusion services. Therefore, the goal of the research is to examine the outcomes of both the mother and fetus in cases where vaginal bleeding occurs during the third trimester of pregnancy.

Materials and Methods : At the Government Medical College Barmer (Raj), a study was undertaken which included 350 cases of antepartum hemorrhage. All patients who reported vaginal bleeding after 28 weeks of gestation were admitted to the hospital for observation during the study period.

Results : Among all cases of abrupt placenta, 42 cases were managed with expectant management, 6 cases resulted in delivery within six days, and 5 cases were able to reach full term and deliver vaginally. The majority, 69 cases were actively managed.

Conclusion: In a tertiary care facility, the prompt identification of the cause of antepartum hemorrhage, followed by proactive expectant management and induction of delivery after confirming fetal lung maturity, can result in a reduction of unnecessary cesarean deliveries, the availability of quality neonatal intensive care, and effective management of appropriate cases. These measures can contribute to better maternal and perinatal outcomes in cases of antepartum hemorrhage.

Keywords: Antepartum Haemorrhage, Mortality, Vaginal bleeding

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I. Introduction

Approximately 10% of pregnant women experience vaginal bleeding during the third trimester, which can indicate a more serious issue. It is important to immediately inform your healthcare provider of any bleeding in the final months of pregnancy. As labor approaches, the cervix begins to dilate, and a small amount of blood mixed with normal vaginal discharge or mucus may be noticeable(1,2).

Bleeding from the vagina during pregnancy after the middle stage can pose risks to both the mother and fetus. The mother may suffer from serious bleeding and require surgery, while the fetus may be affected by insufficient blood supply to the uterus and premature birth. Effective management of late pregnancy bleeding requires identifying the root cause accurately and quickly intervening based on the severity of the situation(3,4).

Antepartum hemorrhage (APH) is a serious emergency in obstetrics, as it can lead to rapid and severe blood loss in pregnant patients and may even result in the death of the mother and fetus. Unlike postpartum hemorrhage, which typically occurs during or after labor and provides some warning, APH can occur suddenly and without any prior signs or symptoms(3,5).

The traditional definition of antepartum hemorrhage is bleeding from the genital tract that happens after 28 weeks but before labor and delivery begins.(6) However, since many countries have changed their legal limit for fetal viability from 28 weeks to 20 weeks, it now makes more sense to define it as bleeding occurring in the second half of pregnancy at 20 weeks or later.

Hemorrhage that serves as a warning sign. Over the past 30 years, advances in obstetric care and blood transfusion services have led to a significant decrease in maternal mortality from antepartum hemorrhage (APH). Therefore, the aim of this study was to investigate the fetal and maternal outcomes associated with vaginal bleeding in the third trimester.

II. Materials and Methods

Government Medical College Barmer (Raj) carried out the research, where they found that 350 cases experienced antepartum hemorrhage during the study period. Any patient who reported vaginal bleeding after 28 weeks of pregnancy was admitted to the hospital.

The study included patients who experienced vaginal bleeding after 28 weeks of gestation. Their medical history and physical examination were thoroughly assessed, and blood tests and ultrasound scans were performed to diagnose cases of abruption placenta, placenta previa, and other cases that did not fit into these two categories, grouped as unclassified and managed, and are treated differently based on their categories. If a patient arrived in an emergency without an ultrasound scan, a bedside emergency scan was conducted to confirm the diagnosis, and it was determined by a vaginal examination or retrospectively after delivery.

Inclusion Criteria

1. Patients who experienced bleeding during the third trimester, including major causes such as abruption placenta, placenta previa, and unclassified bleeding.
2. Patients who were between 28 weeks of gestation and discharge from the hospital after delivery.

Exclusion criteria

- (1) Vaginal bleeding with genital lesions patients are excluded.
- (2) Patient is less than 28 weeks pregnant. Patients with a gestational age more than 28 weeks and a diagnosis of abruption placenta, placenta previa or undefined variation were included in the research; local lesions of the vagina and cervix are excluded.

The hospital received sixty-four cases of women who experienced vaginal bleeding after 28 weeks of pregnancy. Clinical examination, ultrasound, and placental examination after delivery were used to diagnose placenta previa, placental abruption, and an unclassified type of bleeding. In cases of placenta previa where the fetus was alive, premature, and there was little or no bleeding, and the woman was not yet in labor, doctors managed the situation by using tocolytics, antibiotics, steroids, and bed rest in an expectant manner.

Treatment for anemia varied depending on the severity. Blood transfusions or parenteral iron therapy were used to correct anemia. This expectant management continued until the fetus was mature or until full term, at which point an elective C-section was scheduled. If a patient experienced a severe episode of bleeding, emergency measures were taken to resuscitate them, and an emergency C-section was performed.

If the patient is already in established labor, with a minor degree of placenta previa, is in overall good condition, and is experiencing minimal bleeding, a vaginal delivery is permitted. In the cases of placental abruption where the patient is not in labor and there are no immediate health risks to the mother or fetus, an approach called expectant management may be used. This involves closely monitoring the mother and fetus until delivery, with more intensive monitoring if the delivery is preterm and continuing until term.

A patient who presents with grade 1 placental abruption, or who has more severe bleeding, is managed depending on the severity of the situation and the fetal maturity.

This management can involve either vaginal delivery or a C-section. Cases with an unclassified form of bleeding are also managed based on the severity of bleeding and fetal maturity. The outcome for both the mother and fetus is carefully recorded.

III. Results

The study included a total of 350 cases, out of which 155 cases were identified as abruption placenta, 50 cases were identified as placenta previa, and 145 cases were not categorized. Of these 450 cases 249 were from rural areas and 25 were from urban areas. 203 cases were admitted as an emergency, while 147 cases were booked and had received antenatal care either at the hospital or elsewhere.

The study revealed that the highest number of cases 265 in total, were observed in the age group of 21-30 years, followed by 54 cases in the age group of 16-20 years, and 31 cases in those over 30 years of age. Increasing age was found to be a risk factor independent of other factors. The majority of cases were observed in women who had previously given birth (multigravidae), while the number of cases was lower in women who were pregnant for the first time (primigravidae), and the least number of cases were observed in women who had given birth multiple times (grand multigravidae).

Upon admission, 350 cases were found to have a history of per vaginal (PV) bleeding. Among these cases, 163 reported the bleeding within 6 hours. In 62 cases, there was no history of vaginal bleeding and these cases were not considered as warning hemorrhages. However, among the cases diagnosed with placenta praevia, 39 were categorized as warning hemorrhages. Of the cases admitted after 6 hours, which accounted for 187 cases, 46 patients were in shock, but most were revived except for 2 cases. Additionally, 13 cases were found to have disseminated intravascular coagulation (DIC).

In 86.40 percent of cases, fetal movements were present, while the remaining 13.81 percent reported a loss of fetal movements. Among cases diagnosed with abruption placenta, the loss of fetal movements was reported in 56% of cases, whereas in placenta previa, it was only 0.08%. Perinatal loss was much higher in cases of abruption placenta but much lower in cases of placenta previa, except in cases of vasa previa, severe bleeding as in major degree placenta previa, or premature fetus. In most cases where ultrasound reports were available, emergency lower segment caesarean section (LSCS) was performed, and if labor was established with diagnosed low lying placenta, vaginal delivery was allowed. Cases where the placenta was not felt were also allowed for vaginal delivery. The remaining cases were taken for emergency C-section.

Among all the cases of abrupt placenta, 42 cases were managed expectantly, while 6 cases delivered within 6 days and 5 cases reached term and delivered vaginally. The majority of cases, 69 in total, were managed actively.

Of the cases in the current study, 53 percent were categorized into unclassified. The remaining 47 percent were managed expectantly because they were not in labor and had no active bleeding upon admission. Additionally, these cases involved a live preterm fetus without maternal or fetal distress. These patients were admitted to the hospital, where they were given antibiotics and tocolytics, steroids, and treatment for anemia, which included blood transfusions or iron preparations depending on the severity of the anemia.

IV. Discussion

The discussion highlights the challenges faced by developing countries like India, where a lack of basic medical care and transportation, high rates of illiteracy, early marriages, and a high prevalence of anemia pose significant hurdles to managing obstetric emergencies like antepartum hemorrhage (7). APH remains one of the most serious obstetric emergencies, and even with the best obstetric care, a pregnant woman can rapidly become exsanguinated due to bleeding in the third trimester of pregnancy. APH is a major cause of maternal and fetal mortality worldwide, occurring in 3 to 4 percent of all pregnancies. All vaginal bleeding in the later months of pregnancy is a cause for alarm and requires immediate evaluation. While second trimester bleeding is common, it is often not discussed due to the low rate of fetal salvage. It is crucial to counsel, diagnose, refer, and manage cases of APH at higher centers in order to ensure better outcomes for both mother and fetus(8,9).

The likelihood of placenta previa is greatest in the pregnancy that follows a previous cesarean delivery. This could be due to inadequate development of the lower segment of the uterus as a result of scar tissue, creating a suitable area for implantation(10).

The study examined 350 cases, finding that most of the cases (88 percent) were from rural areas and were emergency admissions without prior booking. These cases had higher rates of maternal morbidity and neonatal mortality, in line with the findings of James Scot's study which also showed a higher risk of maternal and fetal morbidity and mortality in unbooked cases. Most cases (26-81.25 percent) were actively managed as they were not suitable for expectant management. A total of 3 cases were in hypovolemic shock, 8 cases were in established labor, and 20 cases had profuse bleeding, while 3 cases had intrauterine devices (IUD). Among these cases, 17 underwent emergency cesarean section, and 3 with type 1 placenta previa delivered vaginally. Unfortunately, 6 babies died due to prematurity and respiratory distress. In the current study 5 cases were managed using expectant management as they were not in labor, had no active bleeding on admission, and a live preterm fetus without maternal or fetal distress. These patients received antibiotics and tocolytics, and anemia was treated with blood transfusion or iron preparation depending on the severity.

Most cases (88-92.70 percent) were actively managed, and expectant management played a minimal role in abruption placenta cases. A total of 24 cases underwent emergency LSCS, and 64 delivered vaginally. Unfortunately, 42 babies died during the antepartum, intrapartum, and postpartum periods.

The study has certain limitations, one of which is the lack of information about the severity, duration, and frequency of bleeding that may play a significant role towards the end of pregnancy. The study recommends future research to examine the relationship between vaginal bleeding in the third trimester and the gender of the baby in current and previous pregnancies, as well as the body mass index of the mother.

V. Conclusion

In a tertiary care setup, timely identification of the cause of antepartum hemorrhage (APH), proactive expectant management, and induction of labor after confirming fetal lung maturity can lead to a reduction in unnecessary cesarean deliveries and improved outcomes for both mother and baby. Additionally, providing quality neonatal intensive care and actively managing appropriate cases can further improve perinatal outcomes in APH.

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