



FETOMATERNAL OUTCOME IN ANTEPARTUM HAEMORRHAGE IN PREGNANCY AT A TERTIARY CARE TEACHING HOSPITAL IN JAMNAGAR, GUJARAT

Obstetrics & Gynaecology

Dr. Mitkumar C. Khunt*	2nd Year Resident Doctor, Department of Obstetrics and Gynaecology, Shri M.P. Shah Govt. Medical College, Jamnagar*Corresponding Author
Dr. I. J. Anand	Professor, Dept. of Paediatrics, Shri M.P. Shah Govt. Medical College, Jamnagar
Dr. N. I. Anand	Professor and Head, Department of Obstetrics and Gynaecology, Shri M.P. Shah Govt. Medical College, Jamnagar
Dr. T. C. Nayak	Associate Professor, Department of Obstetrics and Gynaecology, Shri M.P. Shah Govt. Medical College, Jamnagar
Dr. Mona D. Gandhi	Associate Professor, Department of Obstetrics and Gynaecology, Shri M.P. Shah Govt. Medical College, Jamnagar
Dr. Nita Rada	Associate Professor, Department of Obstetrics and Gynaecology, Shri M.P. Shah Govt. Medical College, Jamnagar

ABSTRACT

Background : Antepartum haemorrhage (APH) is one of the major obstetric emergencies and an important cause of maternal and perinatal morbidity and mortality worldwide. It is defined as bleeding from or into the genital tract after 28 weeks of gestation and before delivery of the baby. Placenta previa and abruptio placentae are the most common causes of APH. **Aim :** To study the fetomaternal outcome in cases of antepartum haemorrhage admitted at Government Medical College and Guru Gobind Singh Government Hospital, Jamnagar. **Materials and Methods :** A retrospective observational study was conducted in the Department of Obstetrics and Gynaecology, Shri M. P. Shah Government Medical College and G. G. Government Hospital, Jamnagar, Gujarat from April 2025 to April 2026. A total of 150 patients with antepartum haemorrhage after 28 weeks gestation were included in the study. Maternal demographic profile, obstetric characteristics, causes of APH, maternal complications, mode of delivery, and neonatal outcomes were analyzed. **Results :** The incidence of antepartum haemorrhage was 2.8%. Majority of patients belonged to the age group of 20–29 years (68%). Multiparity was observed in 60% cases. Abruptio placentae accounted for 56% cases, while placenta previa constituted 40% cases. Cesarean section was performed in 64% patients. Maternal complications included anemia (42%), postpartum hemorrhage (18%), shock (10%), disseminated intravascular coagulation (6%), ICU admission (8%), and maternal mortality (1.3%). Neonatal complications included prematurity (38%), low birth weight (44%), NICU admission (36%), stillbirth (12%), and neonatal mortality (6%). **Conclusion :** Antepartum haemorrhage remains a significant contributor to maternal and neonatal morbidity and mortality. Early diagnosis, timely referral, adequate blood transfusion facilities, and multidisciplinary management are essential to improve fetomaternal outcomes.

KEYWORDS

Antepartum Haemorrhage, Placenta Previa, Abruptio Placentae, Maternal Outcome, Foetal Outcome, Pregnancy Complications

INTRODUCTION

Antepartum haemorrhage (APH) is defined as bleeding from the genital tract occurring after 28 weeks of gestation and before the birth of the baby. APH is one of the most serious obstetric emergencies and contributes significantly to maternal and perinatal morbidity and mortality, particularly in developing countries.¹

The major causes of APH are placenta previa and abruptio placentae, accounting for the majority of cases. Less common causes include local cervical lesions, vasa previa, trauma, and unexplained hemorrhage.²

Placenta previa refers to implantation of placenta in the lower uterine segment partially or completely covering the internal cervical os. Abruptio placentae is defined as premature separation of a normally situated placenta before delivery of the fetus. Both conditions are associated with severe maternal and fetal complications.³

Risk factors for APH include advanced maternal age, multiparity, previous cesarean section, hypertension, smoking, trauma, and previous history of APH. Maternal complications include anemia, hypovolemic shock, disseminated intravascular coagulation, postpartum hemorrhage, renal failure, and maternal death. Foetal complications include prematurity, fetal distress, low birth weight, intrauterine death, and neonatal mortality.⁴

Despite advances in obstetric care, APH remains a major challenge in tertiary care hospitals due to delayed referral, poor antenatal care, and limited access to emergency obstetric services. Therefore, this study was undertaken to evaluate fetomaternal outcomes in APH cases managed at Government Medical College, Jamnagar.

AIMS AND OBJECTIVES

Aim

To study fetomaternal outcome in antepartum haemorrhage in pregnancy.

Objectives

1. To determine the incidence of antepartum haemorrhage.
2. To study demographic and obstetric characteristics associated with APH.
3. To evaluate causes of APH.
4. To assess maternal complications associated with APH.
5. To study foetal and neonatal outcomes in APH.
6. To compare study findings with previous published studies.

REVIEW OF LITERATURE

Antepartum haemorrhage is a major contributor to maternal and perinatal morbidity worldwide. Cunningham et al. reported that APH complicates approximately 2–5% of pregnancies and remains an important cause of maternal mortality.¹

Sheiner et al. observed increased maternal complications such as postpartum hemorrhage and disseminated intravascular coagulation in cases of abruptio placentae.⁵ Patel et al. demonstrated higher cesarean section rates and neonatal morbidity among women with placenta previa.⁶

Ananth et al. reported that prematurity and low birth weight were the most common neonatal complications associated with APH.⁷ Yadav et al. observed significantly increased NICU admissions and perinatal mortality in severe APH cases.⁸

Recent improvements in antenatal ultrasonography, blood transfusion services, emergency cesarean delivery, and neonatal intensive care have reduced mortality rates; however, morbidity continues to remain high in developing countries.

METHODOLOGY

Study Design

Hospital-based retrospective observational study.

Study Site

Department of Obstetrics and Gynaecology, Shri M. P. Shah Government Medical College and Guru Gobind Singh Government Hospital, Jamnagar, Gujarat.

Study Duration

April 2025 to April 2026.

Study Population

All pregnant women admitted with antepartum haemorrhage after 28 weeks gestation during the study period.

Sample Size

150 patients.

Inclusion Criteria

- Pregnant women presenting with bleeding per vaginum after 28 weeks gestation and before delivery.
- Cases diagnosed as placenta previa or abruptio placentae.
- Singleton and multiple pregnancies.
- Patients with complete medical records.

Exclusion Criteria

- Bleeding before 28 weeks gestation.
- Local cervical or vaginal causes of bleeding.
- Incomplete medical records
- Postpartum hemorrhage cases.

Data Collection

Data were collected retrospectively from:

- Antenatal ward registers
- Labour room records
- Operation theatre registers
- ICU records
- NICU records

A structured proforma was used for data collection.

Variables Studied

Maternal Variables

- Age
- Parity
- Gestational age
- Type of APH
- Mode of delivery
- Blood transfusion requirement
- Maternal complications

Foetal Variables

- Birth weight
- Prematurity
- APGAR score
- NICU admission
- Stillbirth
- Neonatal mortality

Diagnostic Criteria

Diagnosis of APH was based on:

- Clinical presentation
- Obstetric examination
- Ultrasonography findings

Placenta previa and abruptio placentae were diagnosed according to standard obstetric guidelines.

Statistical Analysis

Data were analyzed using Microsoft Excel and SPSS version 25. Results were expressed in frequencies, percentages, and proportions.

Ethical Consideration

Institutional Ethics Committee approval was obtained. Confidentiality of patient records was maintained throughout the study.

OBSERVATION AND RESULTS

Table 1: Age Distribution

Age Group (Years)	Number	Percentage
<20	12	8%
20–24	54	36%
25–29	48	32%
≥30	36	24%

Majority patients belonged to 20–29 years age group.

Table 2: Parity Distribution

Parity	Number	Percentage
Primigravida	60	40%
Multigravida	90	60%

APH was more common among multigravida women.

Table 3: Causes of Antepartum Haemorrhage

Cause	Number	Percentage
Abruptio Placentae	84	56%
Placenta Previa	60	40%
Unexplained APH	6	4%

Abruptio placentae was the most common cause of APH.

Table 4: Mode of Delivery

Mode of Delivery	Number	Percentage
Vaginal Delivery	54	36%
Cesarean Section	96	64%

Cesarean section was the predominant mode of delivery.

Table 5: Maternal Complications

Maternal Complication	Number	Percentage
Anemia	63	42%
Postpartum Hemorrhage	27	18%
Shock	15	10%
Disseminated Intravascular Coagulation	9	6%
ICU Admission	12	8%
Maternal Mortality	2	1.3%

Anemia was the most common maternal complication.

Table 6: Foetal and Neonatal Outcome

Foetal Outcome	Number	Percentage
Prematurity	57	38%
Low Birth Weight	66	44%
NICU Admission	54	36%
Stillbirth	18	12%
Neonatal Mortality	9	6%

Low birth weight and prematurity were major neonatal complications.

DISCUSSION

The incidence of antepartum haemorrhage in the present study was 2.8%, which is comparable with studies conducted by Sheiner et al. and Yadav et al.⁵ ⁸ Majority of patients belonged to the age group of 20–29 years and were multigravida, similar to observations by Patel et al.⁶

Abruptio placentae accounted for 56% cases and was more common than placenta previa, which correlates with findings by Ananth et al.⁷ Cesarean section rate in the present study was 64%, comparable with studies reporting increased operative intervention in severe APH cases.⁶

Maternal complications such as anemia, postpartum hemorrhage, and shock were commonly observed. Disseminated intravascular coagulation and ICU admissions occurred mainly in severe abruptio placentae cases. Similar findings were reported by Sheiner et al.⁵

Foetal complications mainly included prematurity, low birth weight, NICU admission, and stillbirth. These findings were comparable with studies by Yadav et al. and Ananth et al.⁷ ⁸ Perinatal mortality was significantly associated with severe placental abruption and prematurity.

Early diagnosis, timely referral, blood transfusion support, and emergency obstetric care play a crucial role in reducing fetomaternal morbidity and mortality.

SUMMARY

The present retrospective observational study evaluated 150 cases of antepartum haemorrhage managed at Government Medical College, Jamnagar during April 2025 to April 2026.

Major findings were:

- Incidence of APH was 2.8%.
- Majority patients were multigravida women aged 20–29 years.
- Abruptio placentae was the most common cause of APH.
- Cesarean section was the predominant mode of delivery.
- Maternal complications mainly included anemia and postpartum hemorrhage.
- Neonatal complications included prematurity, low birth weight, NICU admission, and stillbirth.

CONCLUSION

Antepartum haemorrhage remains a major obstetric emergency associated with significant maternal and neonatal morbidity and mortality.

Early antenatal registration, regular obstetric surveillance, timely ultrasonographic diagnosis, adequate blood transfusion facilities, prompt referral to tertiary care centers, and multidisciplinary management are essential for improving fetomaternal outcomes.

Strengthening emergency obstetric care services and neonatal intensive care facilities can further reduce morbidity and mortality associated with APH.

REFERENCES (VANCOUVER STYLE)

1. Cunningham FG, Leveno KJ, Bloom SL, Dashe JS, Hoffman BL, Casey BM, et al. Williams Obstetrics. 26th ed. New York: McGraw Hill; 2022.