

Abruptio Placenta: A Study on Maternal and Perinatal Outcome at Teaching Hospital

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Abstract

Background: Abruptio placenta is separation of a normally situated placenta after 20 weeks of gestation and prior to the birth of the foetus. It is an important cause of antepartum haemorrhage and presents as an acute abdomen in the third trimester of pregnancy.

The study was aimed to find out the incidence, obstetric risk factors, and various complications of abruptio placenta and to analyze the maternal and perinatal outcome of the same.

Materials and Methods: The retrospective observational study was carried out in the obstetric department in CG hospital attached to JJM medical college, Davangere between October 2017 and September 2018.

Results: Out of 9800 deliveries there were 64 cases of abruptio placentae. The incidence of Abruptio placentae was found to be 0.65%. Associated risk factors were preeclampsia (45%), previous caesarean section (18.6%). PPH occurred in 13(20%) of patients.²² (34%) of patients required blood transfusion. Eighty five percent (85%) babies required NICU and 54% had early neonatal death.

Conclusion: Abruptio placenta is associated with poor maternal and fetal outcome. Hence early diagnosis and prompt resuscitative measures would prevent both perinatal and maternal mortality and morbidity.

Keywords: Abruptio placenta; Antepartum haemorrhage

Introduction

Abruptio placenta is separation of a normally

situated placenta after 24/28 weeks of gestation and prior to the birth of the fetus.

It is a serious obstetric condition that increases maternal and neonatal morbidity and mortality.¹

Abruption complicates 1% of pregnancies.² Obstetric hemorrhage accounts for 1/3rd of maternal death.

Perinatal mortality is high with abruption due to its strong association with preterm.

Even babies born at term had 25-fold higher mortality with abruption.³

Placental abruption is due to the rupture of the uterine spiral artery.⁴ Bleeding into decidua leads to separation of the placenta.

Hematoma formation further separates the placenta from the uterine wall, causing compression of these structures and compromise of blood supply to the fetus.⁵

Primary cause of abruption is not known but the main precipitating and predisposing factors of abruption are age, parity, anemia, poor nutrition, pregnancy induced hypertension, eclampsia, gestational diabetes mellitus, premature rupture of membrane, and previous medical termination of pregnancy.⁶

Aims and Objectives

1. To assess the maternal and perinatal outcome in patients with abruption.

- To determine the association and influence of various maternal factors on the outcome of pregnancy.

Materials and Methods

The retrospective study of Abruptio Placenta cases was carried out in the obstetric department in CG hospital attached to JJM medical college, Davangere between October 2017 and September 2018.

Maternal and perinatal outcome and risk factors were assessed in all abruption cases.

From those case records, details regarding the age of the patient, parity and maternal high-risk factors were collected. All other causes of APH like placenta previa and other extra placental causes were excluded.⁸

Detailed obstetric history was obtained and maternal high risk factors like PIH, GDM, PPRM, previous LSCS was noted.

Diagnosis was confirmed by the presence of retroplacental clots.

Patients were managed according to the fetal and maternal conditions.

Maternal complications studied were PPH, DIC, anemia, need for blood transfusions and mortality.⁹

Fetal outcome in the form of perinatal mortality, prematurity and admission to the neonatal care unit were studied.

All information's were gathered and results were analyzed.¹⁰

Results

Out of 9800 deliveries happened in the study period total number of abruption cases were 64. The incidence of placental abruption was 0.65%. (Table 1)

Table 1: Association with Maternal Age.

Age group	Percentage
<26	25
26-30	32
>30	7

Table 2: Association with Parity.

Parity	Percentage
primi	24
multi	30

Table 3: Abruptio Grading.

Grade	Number
1	19(29%)
2	25(39%)
3	20(32%)

Table 4: Risk Factors.

Risk factors	Percentage
Pre eclampsia	29(45%)
Previous history of lscs	12(18%)
Rh -ve	6(9%)
Type 2 DM	1(1.5%)
Multiple gestation	1(1.5%)
Pprom	1(1.5%)
Hypothyroidism	1(1.5%)
Chronic hypertension	1(1.5%)

Table 5: Maternal complications.

Complication	Percentage
Anemia	26(40%)
Need for blood transfusion	22(34%)
DIC	6(9%)
PPH	13(20%)
Peripartum Hysterectomy	2(3%)

Table 6: Fetal Complications.

Complications	Percentage
Preterm	25(39%)
NICU Admission	55(85%)
Perinatal mortality	35(54%)
IUD on admission	21(32%)

Discussion

Placental abruption is one of the serious complications of pregnancy, as it leads to both poor maternal and fetal outcome.¹¹ The incidence of abruptio placenta was 0.5% in our study, which is similar to study by Wasnik SK.¹²

A higher incidence was noted in multiparous patients (Table 2) and women from lower socioeconomic status.^{8,10}

Most common in the women of age group 26-30 yrs. Hypertension (Table 4) was associated with placental abruptio in 45% of cases in our study which is similar to studies of T N Abdella¹⁴ and Mukherjee et al.¹³

Anaemia was also observed to have significant association in our study.

Postpartum hemorrhage (PPH) was seen in 20% of cases. (Table 5)

Peripartum hysterectomy was done in two out of 64 cases (3%).¹⁴

No maternal deaths were noted. Perinatal mortality was 54%.

In the present study there was a high incidence of perinatal mortality (54%). (Table 6) This could be because of late admission, late referral and prolonged interval between abruption to delivery time which was similar to the study done by Majumdar et al.⁷

Routine antenatal check-up, correction of anemia, timely referral, timely caesarean section, liberal blood and blood components transfusion and good neonatal intensive care unit will help further to lower the perinatal and maternal morbidity and mortality.

Conclusion

This study reveals that Severe preeclampsia, previous LSCS and high parity are independent risk factors for abruption placenta.

Antenatal care which identifies the risk factors like PIH plays an important role in decreasing the incidence of abruption placenta and improving the maternal and fetal outcome.

Despite advances in obstetrics, placental abruption still remains an unpredictable and unpreventable serious obstetric complication.

An understanding of predisposing factors and materno-foetal outcomes will help us manage these cases with a foresight.

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